

# A message from NAB

Small and medium-sized businesses are the lifeblood of our country and our economy.

Successfully running your own business is hard at the best of times and resilience, determination and physical and psychological wellbeing are critical to ensuring you can be your best for your business, your family, your team and your community.

As Australia's largest small business bank, we're committed to supporting business owners to build and grow successful businesses. We understand how challenging running your own business can be, especially during difficult times.

To help support you through the challenges you may encounter throughout the lifecycle of your business, we've partnered with Strive Stronger (a small business like yours) to create NAB Business Fit.

NAB Business Fit is a digital service that provides a practical approach to learning from a range of experts in business, sport, entertainment and science, all designed to support Australian business owners to be more resilient, adaptable and sustain physical and psychological wellbeing.

In addition to our NAB Business Fit program, I am excited to provide you with a copy of this book to support you in your personal and professional life, and help to ensure both you and your Business are MatchFit, to meet any challenge.

We hope you enjoy both the NAB Business Fit program and this book.

Ana Marinkovic
Executive, Business Direct & Small Business
NAB





# MATCHFIT

THE COMPLETE MANUAL TO GET YOUR BODY AND BRAIN FIT FOR WORK AND FIT FOR LIFE

ANDREW MAY

WITH DR TOM BUCKLEY



Disclaimer: All information contained in this book is intended for general information purposes only. The information provided should not be relied upon as medical advice and does not supersede or replace a consultation with a suitably qualified healthcare professional.

Text copyright © Andrew May 2019 Design, illustration and typeset copyright © Brio Books 2019 Reprinted 2019

ISBN 978-1-922267-03-0 (print) ISBN 978-1-922267-04-7 (digital)

This book is copyright. All rights reserved. Except under the conditions described in the Copyright Act 1968 (Aust) and subsequent amendments, and any exceptions permitted under the current statutory licence scheme administered by the Copyright Agency, no part of this publication may be reproduced, stored in a retrieval system, transmitted, broadcast or communicated in any form or by any means, optical, digital, electronic, scanning,mechanical, photocopying, recording or otherwise, without the prior written permission of both the copyright holders and the publisher.

The moral rights of the authors have been asserted.

Cover design, text design and typesetting by Xou Creative, xou.com.au Printed and bound in China through Asia Pacific Offset Limited

I really hope you enjoy my book and get something out of it. Let me know what you think by sending feedback to me directly at support@andrewmay.com

This is your personal copy of MatchFit. Please be respectful of the content and don't pirate or forward this file. For additional copies, please visit andrewmay.com

#### To Archer and Mikaela,

Thank you for your unconditional love, daily inspiration and playful disposition. I am blessed to have you as my children.

Love, Daddy

IN	ITRODUCTION	1
1	The Perfect Storm	11
2	Health and Wellbeing Through the D	ecades 27
C	ALCULATE	47
3	MatchFit Calculator	49
4	Performance Moments	59
5	Plan	75
EN	NGAGE	89
6	Move	91
7	Fuel	127
8	Recharge	165
9	Connect	203
10	Think	231
11	Play	263
TRACK		287
12	Living the Better Week	289
13	Understanding Behaviour Change	311
14	MatchFit in Practice	325
S	TAYING CONNECTED	341
A	CKNOWLEDGEMENTS	359



elcome to MatchFit.

My goal in writing this book is to help you achieve a better way of living. You'll learn how to stimulate your body and

better way of living. You'll learn how to stimulate your body and your brain to be fit for work and fit for life, and how to connect with what is really important – and I'm not talking about wi-fi.

Being MatchFit means performing at your best in all areas of your life. The program brings together my 20 years as an athlete and sports coach, my studies in exercise physiology and coaching psychology, and my work as an entrepreneur and a partner in a global consulting firm. The strategies this book offers you have been tried and tested. Importantly, they've been strengthened by success and by setbacks too. And along the way they have positively impacted thousands of lives, including my own.

# WHAT IS MATCHFIT ALL ABOUT?

MatchFit is a holistic program that uses the high-performance strategies of sports science, exercise physiology, performance psychology and medical science (including cardiac science and neuroscience) to help anyone optimise their life in six key areas: MOVE, FUEL, RECHARGE, CONNECT, THINK and PLAY. Together, these 'levers' contribute to physical, psychological, emotional, spiritual, social, intellectual, occupational and environmental health and vitality – meaning high performance whenever it is needed, and a life that is connected, longer, richer and more fulfilling.<sup>1</sup>

Sport provides us with great examples of individuals and teams who achieve outstanding success across sustained periods – think of Michael Phelps's 23 Olympic gold medals in swimming, the Williams sisters winning over 30 Grand Slam tennistournaments between them, Roger Federer with more than 20 Grand Slams, or the All Blacks' domination of international rugby union.

Performances like these are not flukes. They are sustained and consistent efforts, game upon game, tournament upon tournament, year upon year. High-performing athletes and teams work on recovery and sustainability just as much as they do on fitness and nutrition, or on training and competition.

They are living examples of what it means to be MatchFit.

Without using the term, I've been coaching people, teams and organisations to be 'MatchFit' all my working life. But it wasn't until a former colleague (thank you, James Hunter) suggested I translate these strategies specifically to the world of business that the MatchFit philosophy really took off.

#### **MEASURING PERFORMANCE**

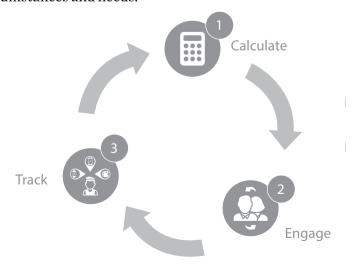
It's relatively easy to define high performance in the world of sport. Making a national team, winning a gold medal, breaking a world record, winning a premiership or annual tournament – all of these are clearly observable metrics. Athletes train their bodies and brains in a range of environments and simulated situations to get ready for game day. Metrics have also been developed that assess their readiness to perform: as a physical performance manager, I could measure speed, flexibility, endurance, body fat, strength, reaction time, recovery and so on. But the real test is always on game day. Sport is brutally honest, and athletes are tested in front of live TV audiences around the globe.

High performance in other areas – such as work, life and family – has in the past been dismissed as a touchy-feely subject that relies on so-called 'soft skills' like motivation, emotional intelligence and state management, rather than on evidence and hard science. The MatchFit program turns this upside down, using three steps to help anyone achieve high performance across all domains of their life:

MATCHFIT

- **CALCULATE**: The first step is to use the unique MatchFit Calculator to get a baseline set of data. This establishes exactly where you are right now and where you need to be. We'll dive into this in more detail in Part 2.
- **ENGAGE**: Next, we use the six MatchFit levers to energise, engage and educate you about the latest science of human performance to apply at work and in your personal life. Part 3 explores these strategies one by one.
- **TRACK**: Part 4 looks at how to stay accountable and how to be inspired by people all around the world who have turned their lives around by following the MatchFit philosophy.

The beauty of the MatchFit program is that it is a continuous process – when it comes to high performance, there is no clear 'end point' or final destination. And in any case it's different for all of us. That's why the stages of MatchFit are circular: it is a continuous process of CALCULATE, ENGAGE, TRACK. This keeps you grounded, balanced and sustainable through all of life's ups and downs, and supports as you strive to achieve what is meaningful in your life: you can adapt MatchFit to your circumstances and needs.



# A HOLISTIC PROGRAM

It's easy to think of health simply as being physically fit and keeping your weight at the right level. But there's more to it than that. As my co-author Dr Tom Buckley says, 'There is no health without mental health.'

Key to the MatchFit approach is the insight that high performance requires wellness in all senses of the word. It is just as important to be healthy psychologically and socially, and that's why the MatchFit program puts as much emphasis on the brain as on the body. You'll learn about the value of friendships and community, and the important role that play has in all our lives – it's not just for kids.

The power of MatchFit lies in the way that these aspects work together. The scientific literature is increasingly highlighting how physical fitness and psychosocial wellness interrelate to promote healthy ageing – which is exactly what I've witnessed over decades as an athlete, strength and conditioning trainer, executive coach and consultant.

Obviously this is great for individuals, but it's powerful for businesses too: prioritising the health and wellbeing of team members will have a positive impact on your company's bottom line. In today's increasingly competitive, rapidly changing and highly pressured work environment, being MatchFit has never been more critical.

# WHO IS MATCHFIT FOR?

This is a simple one. The MatchFit program is for anyone who is willing to take a close, honest look at their life and commit to making changes. It doesn't matter if you're young or old, male or female, extremely unfit or running marathons, a complete stresshead or a chilled-out monk – this book has been designed to be used by anyone.

I've worked with thousands of people from gold medal Olympic athletes, national representatives and CEOs leading tens of thousands of people, through to mums and dads, rehabilitation patients and women in their 60s who had never previously trained

and yet fell in love with fitness. In my experience, absolutely *everyone* has the ability to improve their health, wellbeing and performance.

This might seem pretty obvious if you're overweight, never exercise and have poor nutrition. But it's equally true if you're physically fit and yet you struggle to sleep. Or you feel stressed all the time. Or you lack a sense of purpose. Or you are disconnected from your family and friends because you're overcommitted at work. True wellbeing means high performance in *all* these areas – and MatchFit is the program that helps you get there.

#### **ABOUT ME**

I'm Andrew May, the creator of MatchFit and you can find me at andrewmay.com. I began my career as an elite middle-distance athlete, before studying exercise physiology and sports coaching. I then completed a Master's in Coaching Psychology, and I've recently begun my PhD linking PQ (Performance Intelligence) to leadership capacity. I've worked as the Physical Performance Manager for the New South Wales and Australian cricket teams, the Sydney Swifts and New South Wales netball teams, as well as with basketball, AFL, tennis and Olympic athletes.

I'm also an entrepreneur, having built and sold three businesses, including Good Health Solutions (now trading as Executive Health Solutions), Australia's largest provider of Executive Health Assessments. In 2016 I sold The Performance Clinic to KPMG, where I worked as a partner for three years. My latest venture, StriveStronger.com, is a digital platform and consulting business that aims to disrupt the way organisations approach wellbeing, productivity and leadership.

I produce a popular podcast, have a regular segment on ABC News Breakfast, appear regularly on radio and in the press, and have written four previous books, including the international bestseller *Flip the Switch: Why Performance Increases When You Work Hard and Recover Even Harder*.

That all sounds pretty impressive, right? But it's not the full story. As we begin to explore what MatchFit is, I want to tell you



more about my journey – because it hasn't all been plain sailing. In fact, I went through a period a few years ago that I refer to as a 'perfect storm', when my health and psychological wellbeing were severely tested. The truth is that I struggled. And I mean *really* struggled.

But it was *because* of that setback and the challenging period in my life that I learned what it means to commit, to dig deep and to truly strive to turn my life around. Those experiences set me on the path to creating the program that is MatchFit.

Let's get started.

In summary, MatchFit is a

1. Metric (MatchFit Calculator)

2.Feeling
(Energetic, vibrant, fresh)

3. Way of Living (Optimising body and brain)



# THE PERFECT STORM

When I was a kid, we listened to our music on cassette tapes. (Millennials may need to Google this . . .) Each cassette had an A side and a B side. The A side featured the artist's best tracks – usually the ones they were famous for – while the B side had songs that, in many cases, simply weren't as good or hadn't been released yet.

When we introduce ourselves to people, we naturally emphasise our A side – but we all have a B side too. Let me explain.



## **MY STORY**

# The A side – jock, nerd and entrepreneur

had a charmed life growing up in country New South Wales. I did well at rugby union, touch football and tennis, but running was the sport that 'chose' me. I won a number of state titles as a junior, went to uni to study exercise science and sports coaching, and at age 21 moved to Hobart and trained with the Australian Institute of Sport's high-performance coach, John Quinn. I learned a lot from John and it wasn't long before I became an assistant coach, working with junior Australian athletes.

Moving back to Sydney, I became the fitness trainer for both the men's and women's New South Wales netball teams and the Sydney Flames basketball team. I worked as a trainer in tennis, hockey, rugby league and golf. I was the strength and conditioning coach for the New South Wales cricket team for seven years and worked with David Misson when he was the physical performance manager for the Sydney Swans AFL side. Next I got the chance to work with the Australian cricket team, and I travelled the world as their physical performance manager.

Back in Hobart one winter after a tough (and freezing) training session, one of my running mates, Shagger, told me I was a walking oxymoron – an athletic nerd. I'd always done well academically; in Year 12 I topped the state in Modern History. After finishing with the Australian cricket team, I completed a Master's in Coaching Psychology.

I've always been interested in business as well. As a young man in Hobart, I wasn't making much money in track and field and I was too poor to afford a dog, so I began taking 'big blokes' for walks. This evolved into what is now called personal training, and I set up my first business focusing on personal training, injury rehabilitation/compensable insurance and corporate health. Many of these 'big blokes' were managers in business or government and as they turned their lives and their fitness around, my business grew rapidly by word of mouth.

I sold this business at age 26 and moved back to Sydney and launched another wellbeing enterprise, Healthy Business, running in-house fitness facilities and a corporate health centre. Within two years this business was bought by the ACCOR hotel group, eventually becoming Good Health Solutions (now trading as Executive Health Solutions), Australia's largest provider of executive health assessments.

I wrote Flip the Switch and as a result of that success, I was asked to speak at conferences and work with senior executives. I launched a keynote speaking business, which morphed into a wellbeing consultancy (The Performance Clinic), which I sold to KPMG in early 2016. For the past three years I was a partner at KPMG but I am now back running my own business again and loving it.

So these last 20 years have been pretty successful. I've done a lot and learned a lot – in particular, I developed the set of principles that help non-athletes improve their performance, which is the essence of the MatchFit program.

But as I hinted earlier, my life hasn't all been A side. Let's flip the cassette over.

# The B side - my own perfect storm

As I say, the first 39 years of my life were great. I had a successful career running various businesses and was a fit

and healthy overachiever. My wife had a high-profile job in the media, and we had two beautiful, healthy kids and lived in a massive house on Sydney's lower north shore. We employed a full-time nanny and drove fancy European cars – you get the picture.

But just before I turned 40, things took a turn for the worse. The storm had been building for a couple of years, but I failed to recognise or acknowledge it. My head was buried in the sand. My wife scored a new high-profile job, which meant she was getting up at 4.00 am and going to bed at 7.00 pm. As a result, we were sleeping in separate rooms, we stopped prioritising quality time together and had little meaningful connection. We were soon more like flatmates than husband and wife.

I had been so caught up in the quest to be successful that I had let everything else fade into the background. What was driving me was ego – I wanted to impress everyone with what I could do. And when the going got tough, I sought emotional support outside my marriage. What remained of the limited trust between us unravelled like a ball of string.

I stayed in the marital home for another five months; we had a monster mortgage and I couldn't afford to rent an apartment. When I did move out, I felt like a poor university student all over again, struggling to make ends meet. Each night after work I'd come home to my empty apartment and burst into tears. No kids. No wife. No dog. No backyard. No garden. No company. No purpose. Anyone who's gone through a divorce or separation will know this feeling, and it's even worse when you have young children. I felt like my heart had been ripped out of my chest, and the emptiness of my life was only making things more painful.

I was 'functioning depressed'. I was getting by at work and still being physically active, but I'd lost the mojo, the spirit, the energy and the spark I'd always been known for. I thought I was convincing those around me that I was fine, but I wasn't. And those closest to me knew.

Lying in bed one morning, I heard about the suicide of an athlete I'd known since we were kids. I felt helpless and couldn't get myself moving to go and meet friends for an early-morning

cycle. I made up an excuse that I was sick (my good friends know I never get sick!) and just lay there in bed. I remember thinking: For the first time in my life, I understand how people get so down, so desperate, that they think the best way out is to take their own life.

The breakdown of my marriage had hit me harder than I'd thought possible. Like a lot of people – especially Irish Catholics – I had an overwhelming sense of failure about my divorce. I thought people would judge me. After all, I was the 'high-performance guy' who helped executives, business leaders, sporting teams and world-class athletes be their best. How could I possibly fail, flop, crash? What would people say if they knew I couldn't keep a marriage together?

I'd always believed that if you worked hard, you got results. But I'd never really been tested, and as a result hadn't developed any 'scartissue' – the resilience and the grit that allows you to put things into perspective, pick yourself up and bounce back. I was stuck at rock bottom.

# **GOING OFF THE RAILS**

I was struggling big time, but at first was too proud/embarrassed to admit it. And the 'therapy' I came up with is what a lot of us turn to (especially men) when we're stressed and feeling depressed. I tried to numb my emotions with alcohol, fast food and a procession of short-term relationships.

# Booze, crappy food and speed dating

Potato chips (or crisps) were my junk food of choice, and I was eating a large packet a night, washed down with two or three cold Asahi beers. My gorgeous mum was travelling from Newcastle to Sydney and staying with me a few nights each week to help out with the kids. She cooked plenty of cakes and apple pies. Now, everyone loves Suzie May's apple pies – the problem was that I was loving them way too often. And I was slathering them in ice cream and cream. Mmm.

In an effort to make myself feel better, I started going out a

lot more and combined my newfound elixir of alcohol with a procession of 'transactional relationships'. Late nights, booze and sex were enough to put a band-aid over my wounds for a while. But this band-aid had also created a by-product – the dreaded middle-aged spread.

I'd become addicted to sugar and was having a coffee and a chocolate bar or sugary muffin as an 'energy boost' to get through each afternoon. I was still cycling a few times a week, but I wasn't doing any flexibility training, and my body wasn't bouncing back from injuries like when I was in my 20s or early 30s. The one bodyweight circuit I did each week was nowhere near heavy or intense enough to build muscle or stimulate my flagging hormones.

The human body has an amazing way of letting us know when we are looking after it – and when we are treating it like an amusement park. I was treating my body like Disneyland and some days it was open 24 hours. I was sustaining more injuries than ever before, even when I was training as an athlete. I had bags under my eyes and my body was in a state of inflammation due to my new 'diet'.

# Floating in that river in Egypt

Looking back, I was in complete denial. I knew what I 'should' do to maintain a good level of health and fitness, but I was stuck in a cycle of poor habits, poor choices and poor mental health. I remember drinking and partying one night with two friends who work in travel, powered by more than just testosterone and the premise of having a good time, and the next day rocking up at 6.00 am for a 100-kilometre bike ride and thinking, *I love how I can burn the candle at both ends and get away with it!* I was still able to beat most of my mates on the bike, so I convinced myself I was still fit.

But I wasn't really fit. And I certainly wasn't healthy either. Time and poor habits were catching up with me and I wasn't getting away with it as much as I wanted to believe.

I went to see my good friend Paddy Farhart, a physiotherapist I knew from our days working together at New South Wales Cricket. He took one look at me and said, 'You don't look well, Mayhem. What's wrong with your body?'

'Where do I start?' I replied. 'I have an inflamed Achilles tendon, tendonitis in my right thumb and impingement in my left shoulder. Plus, my lower back is really sore. Apart from that, I feel awesome!'

We both laughed, but then Paddy gave me the kind of look that only a really good mate can give – a look that said: You need to start looking after yourself, because you're really not in a good way.

In late January 2015, my sister Sarah posted a picture on Facebook of me, my daughter Mikaela and my niece Zahara on a stand-up paddleboard on the Gold Coast. Reality hit me like a hard slap across the face. *Oh my God*, I realised with a sick feeling, *I've got a dad gut. How did that happen?* 

The alcohol, chips and sugar; the late nights partying and lack of sleep; along with the stress, lack of strength training, inflammation, and hormonal imbalances had caught up with me. I lay in bed that night and thought, *This has got to change*.

# **REDISCOVERING MY HEALTH**

I realised that I had to transform my approach to my physical and mental health, my fitness, and my personal and social wellbeing. It had all gone wrong, and it was all interlinked. I needed to put it right.

This was the insight that, ultimately, led to me developing the MatchFit program, writing this book and now sharing the program with you.

The first step was a systems reboot and knowledge update. I had always prided myself on being able to help people improve their fitness and performance. The state I'd let myself get into was

a classic example of knowing what to do, but not doing it. I had to swallow my pride and seek help. I also did extensive research on the latest scientific insights into neuroscience, strength training, cardiovascular conditioning, hormones, nutrition and ageing; along with recent findings in loneliness, connection, social wellbeing and adult play.

I made an appointment to see Jill Macnaught, an executive coach and clinical psychologist. Over several months, we addressed my feelings of failure stemming from my divorce. Jill helped me unravel my limiting beliefs that, because I'd had a 'marriage failure', I had failed in all parts of my life – that no one would take me seriously again, and that I had let my kids down. It took me a long time to learn to live half of the time without my children. Jill also helped me take accountability for my actions and to be honest with myself.

Christian, a former client of mine, likens 'functioning depression' to being stuck in a basement car park. We know where the exit is, but for some reason we drive around and around in circles. I used this analogy to explain to Jill what I was feeling. We all make mistakes – about whom we go into business with, about our career choices, about whom we hook up with, and about how we approach marriage. Jill taught me the power of internal storytelling, and how, especially at challenging times, we need to dig deep and actively rewrite our story to come up with stronger narratives that will power us through the next chapter of our lives.

The two years I spent with high-functioning depression were exhausting and traumatic, but also eye-opening. When I look back now, I see it was a life-changing experience. Until that time, my career and my studies had equipped me with 'textbook responses' to dealing with trauma. If someone told me they were feeling really upset or depressed, I'd immediately think about models and scales, rather than leaning forward and truly understanding and listening. These days, when someone sits down with me and says they're struggling, I can look them in the eye and say, with genuine empathy, 'I understand – I know exactly how you feel.'

#### **HIGH-FUNCTIONING DEPRESSION**

Statistics from the Australian Institute of Health and Welfare suggest that 45% of the population aged between 18 and 85 will experience a mental disorder at some time in their lives. What is known as 'high-functioning depression' may be the most elusive form to recognise: although it can often be debilitating, it can also be suppressed enough to carry out daily responsibilities. It is important to recognise that high-functioning is not the same as fully functioning.

Depression has many forms, each with slightly different symptoms. Depression that still allows a person to live a high-functioning life is often referred to as low-grade depression; or persistent depressive disorder (PDD). In high-functioning depression or PDD, symptoms are generally less severe, may be present on most days and for most of the day, usually last for a minimum period of two years, and may include two or more of these symptoms:

- Decreased appetite or overeating
- Insomnia or oversleeping
- Lack of energy and fatigue
- Lowered self-esteem
- Difficulty concentrating and making decisions
- Feeling sad and hopeless
- Decreased activity, effectiveness and productivity
- Avoidance of social activities
- Feelings of guilt and worries over the past

A person with high-functioning depression may also meet the criteria for major depression; diagnosis should be made by an appropriate healthcare professional. Although it can be difficult to unmask the disorder, high-functioning depression can be effectively treated.<sup>1</sup>

I also began seeing Paddy each week to get to the bottom of my injuries, but we both knew that reducing stress, winding back the crappy food, cutting back the sugar, alcohol and late nights, and adding strength training and mobility to my fitness program would make a big difference.

## **MY MAKEOVER**

The following week I made an appointment with Teresa Boyce, a nutritionist and naturopath. I explained my situation and asked her to keep me accountable.

That same day a colleague took a picture of me. Okay, I know I don't look morbidly obese, but I definitely wasn't going to get a call-up for the cover of Men's Health with that flabby midsection and stooped posture. And I was still feeling really sad on the inside too.

MATCHFIT

Together, the photo and the metrics were a reality check. It was clear to me how I'd let my health and wellbeing slide. I decided to map out where I needed to be, how I wanted to feel, and how I was going to reengineer my life.

Teresa and I put together a 'renovation plan' for my body. We worked out where I needed to be in three and six months, and exactly what I needed to do to get there. At the same time, Jill and I worked on a plan to get my brain healthy again.

Let's look at the elements my 'makeover' included.



Here are my measurements before I started the program:

Bioage: -3 years Weight: 93.5 kg Body fat: 20% Waist: 94.5 cm

Lean muscle mass: 24.5 kg Flexibility and ROM: 11/20

# Reconnecting with purpose and community

I'd lost track of what drove me – and the reason I was on the planet. Working with Jill (and, more recently, with Richard Burton) helped me redefine my purpose and link this to all parts of my life. Prioritising my relationships also made a big change to my wellbeing and sense of belonging.

# Rewiring my brain

With Jill's help, I made three specific changes to how my brain worked. First, I stopped beating myself up over my divorce, and started being a lot nicer to myself. I wasn't a failure – I'd just had a marriage that didn't work out. I also decided that pretending I had my life together all the time was doing me no favours. People make mistakes – that's just part of life. What's important is how we learn from them. And I discovered people connected with me a whole lot more when I showed vulnerability and was much more authentic.

Second, I was now over 40, so I had to accept that I couldn't out-run or out-cycle a bad diet. I needed to rewrite my 'fitness

story' and change the way I thought about looking after my body.

Third, I started learning again. When I was stressed out, the last thing I felt like doing was learning or trying new activities. My brain had become stale. I was in a rut and had been playing the 'Same Game' for a number of years. I set myself new goals including learning to play the guitar (still a work in progress!), shaking up my fitness training and challenging myself to swim the English Channel (more on that 'experiment' later) and learning about technology and digital business models (so I could launch StriveStronger.com).

# Changing how I move

Before starting my new program, I was what I refer to as a 'cardio pig' and would always go for cardiovascular activities like running, cycling or paddling rather than strength training. I thought stretching exercises and yoga were about as exciting as a trip to the dentist. The research I did and the expert advice I received made it clear things had to change. I booked a personal trainer and started doing strength training three times a week. I also started weekly yoga classes and learned to (made myself) enjoy them. I still cycled, but I cut back the long 'junk' miles and replaced them with shorter sessions at higher intensity. I also started swimming and dusted off my surf ski.

# Learning a better way to fuel

I cut out the chips, the sugar and the alcohol. I had to acknowledge that I was addicted to sugar, and that meant getting rid of my primary 'dealers'. I also needed to eat more protein, fresh vegetables and good fats. Teresa and I worked on a nutrition plan, including a specific approach for when I was travelling.

# Prioritising sleep

For so long I had been able to get by on little sleep. I used to pride myself on it. Now, I make sleep a priority and instantly felt so much better. My goal was to get seven hours (or as you'll learn, more specifically four or five 90-minute cycles) most nights. To do that, I had a goal of lights-out before 10.30 pm.

# Building in activities to recharge

Through additional research and personal experience I rediscovered the benefits of physical and psychological recuperation. Along with yoga, I incorporated mental skills training like imagery and visualisation, relaxing activities like massage, and ways of disconnecting psychologically. I went back to having regular mini-breaks and holidays throughout the year.

# Rediscovering the value of play

In my darkest days I lost the ability to have fun, so I now booked in different types of play each and every week. These could include being totally present and engaged with my kids, participating in different fitness activities like dragon boat racing or snow skiing, and booking fun getaways (including a few fitness getaways each year) with friends or family. Most importantly, I tried not to take myself too seriously and began laughing and smiling again.

# Living a Better Week

I'd fallen into a number of bad habits at work. My diary was full of non-productive meetings, I sent and received countless emails, I was addicted to the social media dopamine hit and there were constant distractions as we shifted to an 'agile' working environment. I had to learn to cure my mobile phone addiction and get back to focusing on doing what really mattered. I reintroduced physicality to my work life, ensuring I accumulated 10,000 steps and had at least one 'walk-and-talk' meeting every day. And I went back to the 'Better Week' construct that now forms the accountability framework for the MatchFit program.

# Staying accountable and on track

The final component was sticking to it. With my background as an athlete, I was pretty good at self-regulating once I had a plan in place, so I applied the new program like I was preparing for a race. But I also developed a range of other strategies to help me stay focused, like visualising my 'Ideal Day', tracking my Better Week, locking in an Annual Recovery Plan and making myself accountable to my Personal Board.

#### **RESULTS**

The program worked – and much better and more quickly than I initially expected. I adjusted and refined it over time, of course, but it gave me a structure and a method for rebuilding my wellbeing and pushed me to improve in all areas. I was striving for a healthy mind in a healthy body, and the program helped me get there.

How did I know this? It was simple – the metrics told me. Here's my measurements, taken just before publishing this book:

Bioage: -10 years (down 7 years)

Weight: 88 kg (down 5.5 kg) Body fat: 9% (down 11%)

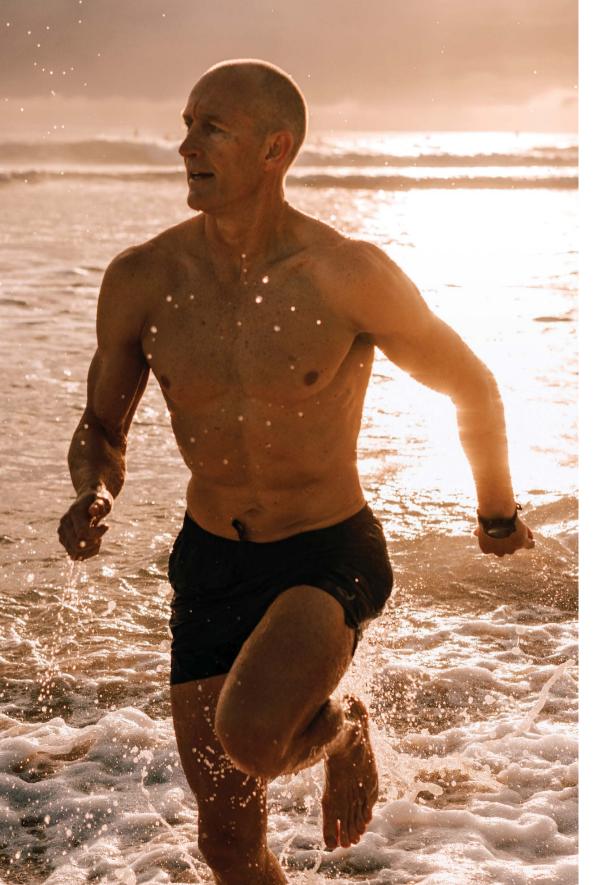
Waist: 84.5 cm (down 10 cm)

Lean muscle mass: 31.6 kg (up 7.1 kg) Flexibility and ROM: 17/20 (up by 25%)

The metrics showed that I had reduced my body fat from 20% to 9%, increased my lean muscle mass by more than 7 kilograms, and significantly improved my flexibility and range of movement. Together, these changes had reduced my weight by 5.5 kilograms, and my waist size by 10 centimetres. Most importantly, I had lowered my biological age by seven years.

Of course, there was another simple way to find out whether the program had worked – by looking at me! Here's a photo of me taken just before this book was published, after my 6 Week Shred experiment.

While I was proud of what I'd achieved physically, I was even more pumped about the way I felt. I was happy, energetic and engaged. My relationships were stronger than ever. I felt fitter and more balanced, and stronger than I'd been 15 years earlier. I was more engaged, more creative and more productive at work. Maintaining my physical and psychosocial wellbeing had become a way of life. I would set up my diary every week (even during the busiest of times) to keep me aligned to my purpose and accountable to staying on the program.



#### THE GENESIS OF MATCHFIT

As we've seen, I approached fixing my health and wellbeing as a strategic project. I realised there were three distinct stages.

First, I measured exactly where I was, and established a set of clear metrics that would indicate my progress.

Second, I re-educated myself and engaged in the program with a specific plan for aligning my purpose, fitness, nutrition, sleep, recovery, mindset and play.

And third, I put in place an accountability process for myself, one that mapped out what an Ideal Day, a Better Week and a sustainable year looked like. I also kept track of my key data through wearable technology, and with regular fitness sessions with colleagues and friends.

Later, I came to see that the knowledge I'd gained and the strategies I'd devised could help others. Every day I receive emails or messages via social media, or talk to people after a presentation or media appearance, or have coffee with a colleague or friend who is also struggling to stay MatchFit. I also know there is a massive need for the scientifically verified content (telling people what works and what is bullshit) in this book.

What emerged was the MatchFit program.

I call the three strategies at the heart of MatchFit CALCULATE, ENGAGE and TRACK, and they make up the remainder of this book.

What gets measured gets done. I track my daily steps, sleep, resting heart rate and exercise intensity. I have a DEXA scan and check blood performance markers and hormone levels each year. I have a personal trainer and nutritionist for accountability.

Its fair to say I invest a significant amount of time, energy and money into wellbeing, but its also possible to track the essential elements at lower cost – and we'll explore these later in the book with MF8 (MatchFit in 8 Weeks).



f you do nothing, your body and brain will decline over time, just like a piece of farm machinery that is never oiled. Regular physical activity and daily movement, healthy nutrition, stimulating and exercising the brain, playing and adopting a youthful disposition all counteract the ageing process. Fit and healthy people have lower levels of stress, anxiety and depression, and a competitive advantage in the workplace. Stretching the brain and adopting a process of constant learning does wonders for your grey matter too.

The challenge of ageing – how to slow it down or stop it completely – has preoccupied humans since the dawn of our species. It's one of the main reasons we try so hard to understand and remedy illness. And we've come a long way. In Australia, for people born between 1881 and 1890, life expectancy was 47.2 years (boys) and 50.8 years (girls). A boy born between 2014 and 2016, on average, will live to the age of 80.4 years, while a girl can expect to reach 84.6 years. For over 160 years, it has been calculated that best-performance life expectancy has steadily increased by a quarter of a year every year. That's a massive increase in life expectancy, and it is now predicted that many people of my generation (Generation X) will live beyond 100 years.

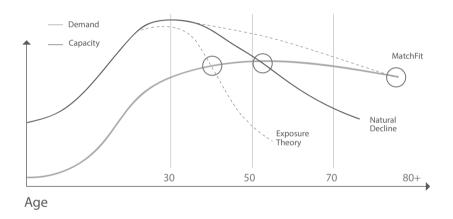
Even though healthcare has improved immeasurably over the past 100 years, not all people are living better, more fulfilling, healthier lives – hence the pithy phrase that 'we are living shorter and dying longer'.

So the challenge is not just to live *longer* lives, but *healthier* and *happier* lives too. How do we do it?

#### **DEMAND VS CAPACITY**

Most adults reach their physiological peak at around 30 years of age. After that, unless you train regularly, especially resistance training, the body can potentially lose up to a kilogram of muscle every year and gain half a kilogram of fat.<sup>4</sup>

By following the MatchFit program, you can keep a buffer between your physical and psychological *capacity* and the *demands* on your body and brain.



You'll notice a circle where demand meets capacity. For many people, particularly men, this happens between 50 to 55 years of age. <sup>5</sup> At this stage in life we also experience what is called the 'double dip'. <sup>6</sup> Our bodies don't metabolise proteins from food as well as before, and we lose muscle mass – for many people this leads to muscle breakdown, feeling unfit, carrying excess weight, strain on joints, muscles and tendons, increased injuries and so on. This reduction in physical capacity leads to a decreased ability to move freely and enjoy a good quality of life. It's a vicious cycle.

Elite athletes are a great example how, with training, you can maintain a buffer between demand and capacity over time. Steve Redgrave won his fifth Olympic gold medal at his fifth Olympics at 44 years of age.

#### **EXPOSURE THEORY**

Although life expectancy rates have risen substantially over the past century, it has been hypothesised that our children will not live longer than us. What the . . .? For two years in a row in 2016 and 2017, and for the first time since 1960, life expectancy *declined* two-tenths of a year from 2015, while the death rate of people between the ages of 25 and 34 increased by 10%. The causes of these trends are multifactorial, but there are several reasons to believe that they will not stop anytime soon, with obesity on the rise among adolescents, while physical activity levels decline. We are also now recognising the negative effects of prolonged screen time, and the prevalence of mental health related illnesses. 11

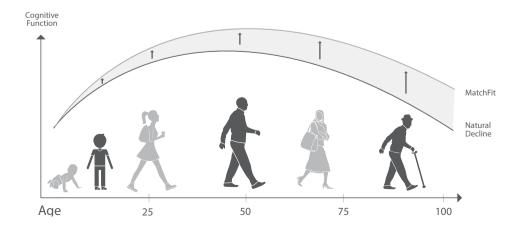
When considering the balance between demand and capacity, we must also consider the interaction between our environment and our lifestyle. Epidemiology, the science of studying the determinants of health-related states in the population, suggests that threats to our wellbeing and health arise when an environment brings an external 'agent' and 'susceptible host' together.<sup>12</sup>

Think of yourself (or your children) as the susceptible host and your mobile, tablet, laptop, TV and everything else digital as the external agents. The results are not pretty – especially considering most children today have been using technology since before they could walk. I lived my first 20-plus years without any exposure to a smartphone or a tablet – my mum and dad weren't 'exposed' until they were in their 40s. (I still remember walking into the gym I managed at the Wrest Point Hotel Casino in Hobart with my massive mobile attached to my hip, thinking I was so, so cool...) Also, constant physical activity was a major part of my day. Unfortunately, the same is just not true for many young people today. Kids grow up on screens, they guzzle highly processed, sugar-laden foods, and physical activity is now an elective at some schools. (Don't get me started on that!)

'Exposure Theory' refers to the effects of repeated exposure to toxic stress and an unhealthy lifestyle. This exposure can accelerate our natural decline in capacity and put us at higher risk of early burnout and premature expression of disease. Exposure Theory is based on three main factors:

- Overload of the sympathetic nervous system (stress responses) as society now exposes us to technology in almost all aspects of daily life. Subsequently, quality recovery is compromised, leading to stress-related disorders.
- Lower levels of physical activity contribute to higher prevalence of physical and mental health risk factors from a young age. Reduced physical activity is now the fourth leading risk factor for global premature mortality.<sup>13</sup>
- Exposure to highly refined and processed foods contributes to metabolic and inflammatory disorders from a younger age. Ultra-processed foods high in energy, sugar and salt, and low in dietary fibre, dominate diets in many Western regions and contribute up to 80% of mean energy intakes in some populations.<sup>14</sup>

Let me translate all of that into simple terms: Exposure Theory – meaning constant use of technology, lack of movement and eating processed and sugary foods – will wipe years off our children's lives.



# THROUGH THE DECADES

Let's have a look in more detail at how our bodies typically age over the decades following adolescence, and what that means for our general health and wellbeing.

# THE 20S: #WHATEVS

When 20 year olds hear me talk about how their bodies and brains will change as they age, I can almost hear them thinking, '#whatevs, this will never happen to me. I'm young and fit and healthy. Ageing only happens to other people – like, old people. You know.' Your body at age 20 is like a beautiful lab experiment where everything works well. You can go out all night and rock up to work the next day feeling fine – and the next night you're ready to go out and do it all again. And again.

#### THE 30S: MUFFIN TOPS

People in their 30s listen a lot more closely when I talk about ageing and the need to focus on managing energy. Most people now get tired more easily, aren't so inclined to bounce out of bed, and show increasing signs of stress and anxiety. Not only that, their bodies start to change – the technical term for this is the muffin top or love handles. In our 30s we have more responsibility at work and come under more pressure. Some of us settle down with a partner and start a family; some might have ageing parents to care for. And because we're so busy, this is the decade when most of us stop playing sport.

## LATE 30S - EARLY 40S: PERFECT STORM

What I call the Perfect Storm is a critical time for our mental and physical health and wellbeing. If you stay fit and healthy through this phase, you are more likely to sail through your 40s and 50s. <sup>17</sup> This is the time when our brains start creating wonderful stories about the reasons we can no longer exercise. These stories typically start with the word 'too'.

Over the years I've heard them all: 'I'm too old, too tired, too fatigued, too busy, too injured, too lazy, too bored . . .' And then

there are the elements: 'It's too hot, too cold, too hilly, too flat, too light, too dark, too humid, too wet...'

One participant at a banking and finance conference I was speaking at a few years ago told the room the reason he no longer exercised was that he was 'too important'. I laughed when he said this, but soon noticed that no one else in the room was laughing with me. At the morning tea break I found out that he was the actual boss, and when he said this, complete with 'power posture' of arms folded behind his head, the entire room thought of a word that rhymed with 'banker'.

It's when we're in the Perfect Storm that many of us face our perfect storm. As we've seen, when I ran into mine a few years back, I really struggled. Rather than pulling the levers I'd used for the first 39 years of my life to keep my body and brain flourishing, I spiralled out of control and turned to alcohol, fast food and short-term relationships to deal with my stress and unhappiness. Rather than turning to the MatchFit levers, I turned them off.

The Perfect Storm is a critical inflection point in our lives, where health, wellbeing and productivity start to decline because of five factors:

# 1. Added responsibility at work

The late 30s to early 40s is the typical age where employees are promoted into more senior roles. These roles often come with an expectation of longer hours and more travel. Managers/leaders take on additional responsibilities, which can be stressful and time-consuming. If you're a business owner or entrepreneur, this is the time you might be expanding your company and taking on significantly more risk or adding to your product offering/portfolio.

# 2. Lifestyle pressures

The Perfect Storm often brings a dramatic increase in pressure outside the workplace too, as many people settle into permanent relationships and have young families to care for. And there are also the financial pressures of mortgages, childcare costs and school fees. This can also be a time when people often separate

and begin new relationships, with all the social pressures, instability and juggling that a modern/blended family can bring.

# 3. Reduction in physical activity

All too often, people tell themselves that they are 'too busy' (the above-mentioned 'Tyranny of the Toos') to do regular workouts. Physical exercise is one of the first activities to be cut out when we're attempting to squeeze in other commitments, and this is the time of life when lots of people drop out of playing competitive sport (the Toos again).

# 4. Routines replace thinking

One of my favourite sayings (which I picked up from former KPMG Performance Clinic colleague Jason Murray) is 'What got you here won't get you where you need to go'. It's during this time of our lives that we need to consciously step back and assess our habits, rituals and routines. Relying on high performance habits and routines is a proven way to enhance performance, playing the 'Same Game' and doing the same thing in the same way every day can create monotony, boredom and a lack of spark. It's vital to fire the neurons in the brain to keep learning, stretching and growing.

# 5. Natural biological and cognitive changes

Just when we need our bodies and brains to be at their best, they inevitably start to decline. Not only do our creativity and memory recall start to decline, but many hormonal levels (including human growth hormone DHEA, testosterone and, for women, progesterone and estrogen) begin dropping, which decreases our muscle mass and changes the shape of our bodies. It's around the age of 40 that our risk of common health conditions increases.

The perfect storm makes you feel overloaded, tired and distracted. Rising stress levels, coupled with reduced physical activity and a lack of strategic recovery, result in the body and brain declining at a much faster pace than normal.

#### THE 40S: GETTING HIGH

People in their 40s really pay attention when I talk about rolling through the decades. If you stay out past midnight in your 40s you take a screenshot of your mobile and post it on Facebook, showing your friends how you're totally going off. And it's true that people in their 40s get high – high blood pressure, high blood glucose levels, high cholesterol, high insulin levels and high levels of visceral fat, all factors that predict future cardiovascular risk. <sup>21</sup> Combined with cognitive overload (which most people now suffer from), people in this age group start to experience losses in their memory and executive function. <sup>22</sup>

#### THE 50S: DISEASE EXPRESSION

If you don't look after yourself and you don't stay physically and psychologically fit throughout your 30s and 40s, in your 50s and 60s you are more likely to experience what's known as 'disease expression'. The major diseases we see in people in their 50s include diabetes, heart disease, cancer and stroke, as well as a range of mental health issues.<sup>23</sup>

# **REVERSING THE TIDE**

I'm sure you know people in their 50s, 60s, 70s and 80s who are physically and psychologically fit. I can promise you, when they were in their 40s they didn't look in the mirror and say, 'It's all downhill from here! I may as well not do anything to look after myself.' I bet they said the opposite. Throughout this book, I'm going to introduce you to people who are MatchFit and have inspired me to be the same. One of those people is Frank.



A few years ago, while I was weathering my own perfect storm, I travelled to Queenstown, in New Zealand, to present at a conference for high-school principals. I had a half-day to wait before flying back to Sydney, so I hired some ski gear and caught a taxi to Coronet Peak to hit the white stuff.

I'd only skied twice before in my life, but I charged in like the typical adult male. 'Gloves, boots, goggles, ski pants, ski top, beanie, skis and stocks – check. Okay, time to carve up the snow!'

After stumbling off the ski lift, I began a disastrous slide down to the bottom of the mountain. Dusting ice off and out of every part of my body, I made a pact to do it again. This time, I was going to nail it!

On the ski lift, I shared a ride with Frank. Frank was a vibrant looking older man who had an amazing energy.

'Have you been skiing for long?' I asked him.

'Oh yeah, I've been skiing for years now. How about you?'

'Only been a couple of times before,' I confessed. 'I'm feeling a bit rusty.'

'A couple of lessons and a few days on the snow and you'll be fine,' he told me.

'How old were you when you learnt to ski?' I asked inquisitively.

'Oh, let me think. I reckon I was 68 . . . no, 69, actually.'

'What? That's incredible,' I said. 'Do you mind if I ask how old you are now?'

'Seventy-eight. But to be honest, I feel like I'm in my 50s.'

Our ride up the mountain ended. Frank stopped calmly to adjust his equipment and take in the pristine alpine view, while I took off down the mountain like a giraffe on rollerskates. About a third of the way down, after I'd tumbled numerous times, Frank slid gracefully alongside me and politely asked, 'Would you like a few tips?'

'I'd love some, Frank. My backside is getting more action than my skis!'
I spent the next few minutes learning about turning, balance and weight distribution from my sprightly ski instructor. At the bottom of the mountain I thanked Frank and arranged to meet him in an hour so I could shout him a hot chocolate.

The conversation I later had with Frank was engaging and inspiring. Frank's wife had died when he was in his mid-60s, and he'd decided that even though she'd been the love of his life, he wasn't going to stop living and exploring the world. At 69, Frank had gone to live in the French Alps for six months, having skiing lessons nearly every day. He was sad that so many of his friends had worked so hard on their careers, only for poor health to let them down as they aged.

'If I can give you one piece of advice, young fella,' he told me, 'stay healthy in your body and stay active in your mind. If you do that, retirement will be the best time of your life.'

Frank's attitude encapsulates what MatchFit is all about. Your age really is just a number – what matters is how you live your life. And you can keep a buffer between capacity and the demands on your body through a structured fitness program, healthy eating, a flexible mindset, ensuring you have regular doses of fun and play and a positive outlook on life.

#### TAPPING THE FOUNTAIN OF YOUTH

You know that throwaway line about age: '60 is the new 50', '40 is the new 30', or whatever it is? Well, there's definitely something to it. Remember how old your grandparents looked when you were young – how frail they seemed? Often they were 'only' in their 50s. A 50 year old today might be starting a second career, entering a new relationship, finishing a PhD or running their first marathon. No reasonably healthy 50 year old should be slowing down.

In the 1960s, it was discovered that humans have a 'use-by date' because our cells can only divide a certain number of times before they die. The so-called Hayflick limit (named after the renowned gerontologist Leonard Hayflick) was explained by reference to the 'ticking clock' of the cell – the telomere – which is found at the end of a chromosome. As our cells divide, our telomeres become shorter and shorter, rather like the lit fuse on a bomb, or a frayed shoelace. There's a point at which they're so short that the chromosomes signal the cells to stop dividing, so the body stops regenerating and we grow old. The Hayflick limit for humans is thought to be about 120 years.

Researchers are actively seeking the scientific equivalent of the fountain of youth using stem cell therapy; targeted genome alteration; coenzyme molecules such as nicotinamide adenine dinucleotide (NAD+), Resveratrol (a natural phenol found in grapes, blueberries, raspberries, mulberries and peanuts); and human growth hormone to attempt to slow the shortening of the telomeres.

But there's a natural way to do this too: with good nutrition, regular exercise, quality sleep, and consistent recovery strategies and stress relief. $^{25}$ 

And if we can keep our telomeres from shortening – which to some extent we can – then the longer we'll remain healthy, active and disease-free. Oh, and looking like George Clooney and Elle Macpherson do in their 50s. MatchFit is here to help!

#### **BLUE ZONE LIVING**

Explorer and author Dan Buettner teamed up with *National Geographic* and the US National Institute on Aging to find the places around the world where people had the highest life expectancy, or where the highest proportions of people live until they are 100 (or more). These countries became known as Blue Zones, because of the blue circle researchers drew on a map to identify them.

That people in these places were living longer is intriguing by itself, but they were also living largely without the aid of medicines and technology, and free from chronic disease, heart disease, cancer and diabetes. Buettner met 'spritely 90 year olds who can stand on their heads' and '100 year olds who can waterski'.

The project discovered 'longevity hotspots' around the world: in Sicily (Italy), Okinawa (Japan), the Nicoya Peninsula (Costa Rica), Ikaria (Greece), and Loma Linda (California). What did these communities have in common? Here are the nine commonalities the team discovered:<sup>26</sup>

- Daily movement: The long-living grew and tended to their gardens, walked where they wanted to go, climbed hills and stairs, played with their friends, made their food with muscle, not machines, and did their house and garden work by hand. In short, these long-lived people were not doing planned exercise (as Westerners do), but moved throughout the day, which helped their metabolism stay high.
- A sense of purpose: In the Okinawan language there was not even a word for 'retirement'. They did, however, have a word for 'purpose': *ikigai*. For the Nicoyans it was *plan de vida*; both roughly translate as 'why I wake up in the morning'. Buettner argued that having a sense of purpose could add about seven years to your life expectancy.
- Regulating stress: No one is immune to stress, not even those living the simple life in Blue Zones. Chronic

- stress leads to inflammation and is implicated in age-related disease. What those in Blue Zones did differently was incorporate daily rituals that downgraded their stress and put it into perspective. Okinawans took a few moments each day to remember their ancestors; the Seventh-Day Adventists in Loma Linda prayed; the Ikarians took naps; the Sardinians had a happy hour. Woo hoo!
- The 80% rule: 'Hara hachi bu' is the 3000-year-old Confucian mantra which roughly means: 'Eat until you are eight parts (out of 10) full'. Okinawans would say it before meals as a reminder to not overeat. And the 20% gap between not being hungry and feeling full can make a big difference between losing weight or stacking it on.
- Eating a plant-based diet: People in Blue Zones had a mostly plant-based diet, and dinner was the smallest meal of the day. Beans including fava, black, soy and lentils were common ingredients, while meat was eaten only about five times a month. In Ikaria, olive oil, greens, goat's milk and whole-wheat unleavened breads were other staples. Okinawans rated bitter melons, tofu, garlic, brown rice, green tea and shitake mushrooms. Along with beans (and wine), Sardinians ate goat's and sheep's cheese, vegetables, sourdough breads and barley. The Californians favoured avocados, salmon, nuts, beans, oatmeal and whole-wheat bread, while the Nicoyans ate corn and squash with their beans, along with fresh, seasonal fruits.
- A shared tipple: People in all Blue Zones (except the Seventh-Day Adventists) drank alcohol moderately and regularly. Moderate drinkers outlived non-drinkers, but they stuck to one to two glasses per day, shared with friends and/or with food.
- Belonging: All but five of the 263 centenarians
   Buettner and his team interviewed belonged to a faith-based community. It didn't seem to matter what the

- denomination was, but it did matter that they felt a sense of belonging or connection within a group.
- Relationships matter: They tended to have their families close by, remained in committed relationships, spent time with those they loved and had active sex lives. 'It imparts about four to six years of extra life expectancy it's also good for the children of those families who have lower rates of mortality and lower rates of disease, called the grandmother effect,' Buettner said.
- *Find your tribe:* If you have a friend who becomes obese, there's a 57% chance that you will too.<sup>27</sup> Smoking, exercise, happiness and loneliness are also contagious: we are influenced by the people we spend the most time with. The world's longest-lived people had social circles that supported their healthy behaviours.

These nine Blue Zone commonalities are totally aligned with the philosophy and methods that underpin MatchFit. It's why this program doesn't focus only on food, or on exercise, or on any other single physical factor. Psychological and social factors are just as important, but most vital is linking them all together. Living a long, healthy and fulfilled life is within our reach, but we have to approach it as a true *lifestyle*.

# WHAT DOES HEALTHY AGEING LOOK LIKE?

The scientific literature increasingly highlights the interaction between physical functioning and psychosocial aspects in promoting healthy ageing. Researchers have identified over 100 definitions of successful and healthy ageing. More than 90% of them included physiological constructs (physical function), 50% related to engagement constructs (involvement in voluntary work and connection with community), 50% involved wellbeing constructs (life satisfaction) and 26% related to personal resources (for example, resilience and the ability to bounce back in life). Only 5.7% related to extrinsic factors (like finances or job title), suggesting that healthy ageing is modifiable, and is increasingly accepted as a critical factor. The researchers also identified having meaning and purpose in life as powerful predictors of being healthy as we get older.28

# LESSONS FROM SPORT

Elite athletes provide a great example of how, with training, you can maintain a buffer between the demand on your body and its capacity over time. Professional athletes train their bodies and brains and practise in a range of environments and simulated situations to get ready for game day. Although they spend hours, days and weeks training, they only compete for a fraction of that time. A 100-metre sprinter runs for 10 seconds; a 1500-metre swimmer swims for 15

minutes; a netballer plays for 60 minutes; and a soccer player runs around the pitch for 90 minutes. Yet they spend months and years preparing for those critical tests – what I like to call 'Performance Moments'.

For athletes, it's also perfectly clear how they should measure their progress in training and their success in competition: lower times, more goals, and of course wins and losses, tournament victories, improving times and breaking records.

MatchFit in sport means being able to play and compete at a consistently high level.

# **MATCHFIT AT WORK**

Employees in the corporate world, on the other hand, 'compete' for 50 or more hours each week, and 'play' for up to four or five decades. But they spend very little time training their bodies

or their brains to prepare for their Performance Moments – debating in the boardroom, drumming up more business in sales meetings, giving presentations, fronting the media and engaging in staff one-on-ones. On top of this, at work you need extra capacity to lead teams, navigate disruption and constant change, and drive the success of the organisation. In our occupations we have success criteria that are nowhere near as clear as those of athletes and sportspeople.

Many organisations still manage performance with an outdated annual review system. Once a year you sit down with your boss and talk about what's working well and what isn't. There are sales quotas and productivity levels and profitability and total shareholder returns to measure outcomes, but how does the average corporate worker *really* know how they're performing?

Many leaders find it hard to link stock prices and sales or financial results to their 'people strategy'. Human performance is dismissed as a 'touchy-feely subject', as 'soft skills' rather than hard data. Why do so many leaders still find it so difficult to nurture individual performance and focus on employee wellbeing?

One reason is that, until recently, a lot of the information on wellbeing has been seen as anecdotal 'pop psychology'. But just as industry has evolved from agriculture and farming to industrial processing to knowledge work, so too the world of human performance has transformed. In recent years it's changed from motivational hype to proven scientific methodologies built upon evidence-based research.

At StriveStronger we are now partnering with some of the world's most progressive organisations, running multiple research projects illustrating how to enhance wellbeing, productivity and leadership capacity.

The following table sets out the comparison between athletes and employees/entrepreneurs.

Athletes	Corporate workers/ entrepreneurs
Hours of training each week.	Little to no weekly training.
Absolute clarity on Performance Moments: what they are and how they are measured.	Ambiguous understanding of Performance Moments, and constant distractions.
Short burst of competition – from 10 seconds to a couple of hours.	Competition for 50 or more hours each and every week.
Strategic recovery is a priority.	Recovery time is a luxury.
Training is balanced between stress (training and competition) and recovery.	Diary is crammed with as many tasks as possible, meaning constant stress.
Quality sleep is a high priority, because of its value to performance.	Sleep is regularly sacrificed in order to fit more work in.
Off-season last between two and three months each year, with a focus on physical and mental recuperation.	Only four weeks' break across a year (although many people fail to take even those). Illness regularly appears during a holiday.
Dedicated support team: nutritionists, sport psychologists, masseurs, exercise physiologists, specialist coaches.	Little to no support team.
Peak career lasts for five to 10 years (15 if lucky).	Career lasts for 40 or more years.

When you think about it like this, it's blindingly obvious: wouldn't workers function at a much higher level if they could train and perform like high-performing athletes?

Obviously, that's just not practical for most lines of work – but couldn't we at least adopt some of the fundamental techniques and strategies of high-performing athletes?

We can – and that's what MatchFit is all about.

#### **CALCULATE - ENGAGE - TRACK**

The principle underlying MatchFit is that before you can make lasting change to an area of your life – be it your health, fitness, psychology, relationships or productivity – you must first understand where you are at right now. You need to know your own strengths and weaknesses, and you need a baseline against which you can measure improvement.

Part 2 of this book – CALCULATE – introduces the MatchFit Calculator and explores how to use it and what it measures. You'll learn about the science that informs and underpins the calculator, and how to use it to track your progress through the MatchFit program.

The next step is to ENGAGE. This is all about education and action. In Part 3 you'll learn about the six MatchFit levers that you will use to improve your physical, mental and social health and wellbeing. Crucially, you'll also learn how to prepare: how to make the space and capacity you need in your life to get the most out of the program.

Health, fitness and wellbeing is not something you can 'set and forget'. That's why Part 4 – TRACK – focuses on staying MatchFit in the real world. Here you'll learn about behaviour change and dealing with setbacks, and you'll design your own Ideal Day, Better Week and Annual Recovery Plan. You'll also discover strategies for integrating MatchFit into your life and work. There are some inspiring case studies form individuals and entire organisations that have put these philosophies into practice.

Are you ready? Let's go!

MatchFit in work and life means having enough capacity to be fully engaged and negating biological decline of the body and brain post 40 years of age.





Institute team of exercise physiologists, nutritionists, sport scientists, psychologists, neuroscientists and researchers – along with Dr Harry Wendt and his team of data analysts, computer scientists and behaviour-change experts – to create our very own evidence-based, online assessment tool: the MatchFit Calculator.

Having purchased this book, you are entitled to two complimentary assessments. Visit matchfitcalculator.com and enter the code on the inside cover of this book to set up your online profile. We recommend you undertake your first assessment right now, and then set clear goals for yourself for the next three months (see below). At that time you should complete your second complimentary assessment, both as a way of monitoring your progress and so you can further refine and update your MatchFit goals.

Your MatchFit score will inform the way you use this book, with specific recommendations based on your current health and your readiness to change your behaviour. The foundations of the MatchFit Calculator are associated with wellbeing and optimal human performance.

So don't procrastinate or make excuses – do it now.

# WHAT IS THE MATCHFIT CALCULATOR?

The Calculator assesses your physical and psychological wellbeing against the five MatchFit Metrics: Biological Age, Brain Fitness, Stress & Recovery Index, Nutrition Barometer and Physical Activity Index. It also incorporates data highlighting your Readiness to Change.

Broadly speaking, the MatchFit Calculator, like the MatchFit program as a whole, is based on an understanding that the body and brain best work together in 'harmony'. We are not a body with a brain on top, and we are not a brain on a stick. Your physical and psychological health are equally important.

Let's explore the MatchFit Calculator's five metrics to see why this is so important.

# 1. Biological Age

While your date of birth tells you how old you are chronologically, your Biological Age shows how well your body is functioning right now. It takes into consideration your physical fitness, nutrition, metabolic health and lifestyle factors. These have been identified as major contributors to morbidity (chronic disease) and longevity. The Biological Age assessment ranks you against expected values (adjusted for age and sex). If you rank well, your Biological Age will be *lower* than your chronological age, whereas it will be *higher* than your chronological age if you have known health and longevity risk factors.

Your MatchFit goal: Reduce your Biological Age to five years less than your chronological age.

# 2. Physical Activity Index

This metric assesses how much and how well you move. Physical activity can take many different forms and occur in many different places, and for that reason the MatchFit Calculator doesn't only monitor formal exercise. It takes into account your movement across the day and, importantly, also considers your posture, mobility, flexibility and strength. Regular exercise does not guarantee a high score in this category: even those who work out often may be surprised by how few steps they take across the working day, for instance.

Your MatchFit goal: 10,000 steps per day; 150 minutes of exercise per week including two resistance training sessions, two to three cardio sessions and one session of flexibility training.

# 3. Stress & Recovery Index

While it is accepted that the human body thrives in response to stressors (they can result in motivation and accomplishment) without adequate recovery, we won't flourish. Stress reactions accumulate, resulting in decreased cognitive ability and increased risk of burnout and physical and mental morbidity (disease). Finding the balance between stress and recovery can be a fine line for high performers, yet is the difference between great and suboptimal performance as well as optimal wellbeing. The Stress & Recovery Index assesses your perceived stress state, psychological detachment (i.e. how well you 'switch off' when you're away from work) and your parasympathetic modulation (relaxation), which are essential to sustaining energy and identifying the risk of burnout and fatigue.

Your MatchFit goal: Score above 75%.

#### 4. Nutrition Barometer

Your nutrition underpins your cellular function, metabolism, energy levels and brain function. Healthy eating is fundamental to brain and body wellbeing. The Nutrition Barometer assesses your knowledge and modifiable behaviours associated with high performance and wellbeing. These factors include hydration, alcohol and caffeine consumption, how many vegetables, protein, fats, carbohydrates, sugar and processed foods you eat, as well as your cooking habits. Even if you believe you have a varied and healthy diet, there's always room for improvement.



Your MatchFit goal: Score above 75%.

#### 5. Brain Fitness

'Brain Fitness' is not about your IQ or your ability to score well in memory games; it is rather the *psychological equivalent* of physical fitness and relates to your brain's ability to grow, learn, change and adapt. The science of brain fitness has evolved considerably in the past decade, and our appreciation of the role of psychological flexibility in higher executive functioning, problem-solving and relationship management has increased. The MatchFit Calculator assesses your Brain Fitness by measuring your psychological flexibility, (growth mindset, change adaptability and grit), mental health and wellbeing (life satisfaction, happiness, stress and distress and coping ability), performance psychology (flow, self-actualisation/mastery, purpose, focus and perceived control), and social connectedness.



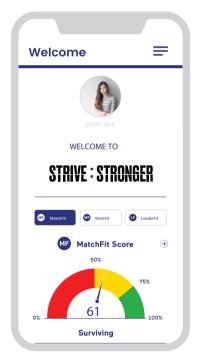
Your MatchFit goal: Score above 75%.

# YOUR MATCHFIT REPORT

Once you have completed the assessment, you will be shown your overall MatchFit Score. You will also be emailed a PDF of your MatchFit Report, which explains your score in detail. This includes an overall MatchFit Score, a separate score for both your body and your brain, and specific scores for your Biological Age, Brain Fitness, Stress & Recovery Index, Nutrition Barometer and Physical Activity Index. Let's take a look at each of these.

#### Level 1: Your MatchFit Score

The first level of reporting provides you with an overall score out of 100, which indicates whether you are MatchFit or not. You are considered MatchFit if you report in what we call the Striving category. In the mid-



range of scores, we classify you as Surviving, and the higher-risk group is referred to as Struggling.

MatchFit category	Score	Recommendations
STRUGGLING (GetHealthy)	0-49	Your priority is improving your wellbeing and eliminating your risk factors. You should focus on developing healthier habits: moving more, increasing your energy levels and enhancing your confidence.
SURVIVING (GetFit)	50-74	Your overall physical and psychological wellbeing is reasonable. Focus on increasing your intensity and modifying your behaviours so that you can shift up to the next category.
STRIVING (MatchFit)	75–100	Congratulations! Your body and brain are in great shape. Your goal is to stay MatchFit, add variety to your routine, and work towards fulfilling your potential.

# Level 2: Body and Brain

The second level of reporting breaks down your results into specific metrics that focus separately on your body and brain.

Your *Body* score is drawn from your Physical Recovery, Physical Functioning, Nutrition, Movement and Biological Age, Physical Activity Profile, Recovery Rating and Nutrition Barometer.

Your *Brain* score is drawn from your measures relating to Switching Off, Social Connectedness, Psychological Performance, Emotional Wellbeing and Cognitive Flexibility.

As you will see, however, these are intimately linked. In other words, developing your brain also improves Body Results

This is colculated from your Biological Age, Physical Activity Index, Stees & Recovery Index (Parasympothetic Activation) and Nutrition Barometer (specific to the body).

Knowing more about how your body is currently working is key to managing health, enhancing energy, topping into the fountain of youth and keeping Perfect Storms of boy.

your body, and training your body has multiple benefits for your brain.

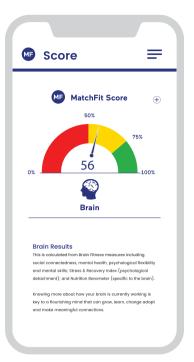
This level of reporting gives you a good indication of whether you should focus your efforts on your body, your brain, or both.

#### Level 3: MatchFit Metrics

The third level of reporting explores how you rated on each of the five MatchFit Metrics: Biological Age, Brain Fitness, Stress & Recovery Index, Nutrition Barometer and Physical Activity Index.

#### **AN IMPORTANT NOTE**

If your score on the Brain Fitness metric indicates that you're struggling mentally, please seek support from family, friends and/or trained medical professionals before beginning a program such as this.



## **HOW TO USE YOUR MATCHFIT SCORE**

Now that you have completed your assessment and received your MatchFit Score and Report, what next?

Chapter 4 ENGAGE introduces and explains the six MatchFit levers: MOVE, FUEL, RECHARGE, CONNECT, THINK and PLAY. These are key areas in which you will learn actions and behaviours that will improve your MatchFit Score.

From this point, the way you approach the program depends on your current MatchFit Score, and also where you are mentally right now. Consult the table on the following page for a summary of how to get the most bang for your buck and build momentum quickly.



Dr Tom and I have been asked many times about the principles behind the MatchFit Calculator. Without going into great detail, we built it with a team of experts after making a thorough review of the scientific literature around optimal health, wellbeing, longevity and performance. This analysis identified seven key areas:

- Physical activity
- Nutrition
- Recovery
- Psychological flexibility
- Mental wellbeing
- Performance psychology
- Social connectedness

While each of these areas makes a unique contribution to overall human health, wellbeing and performance, they do not function independently of one another. This realisation made us truly appreciate the complex interactions between body, brain and social connectedness, and led us to develop both the MatchFit Calculator and the underlying philosophy of this book.

#### MATCHFIT CALCULATOR

MatchFit score	Behaviour focus	Chapter order
STRUGGLING GetHealthy	Lock in healthy habits.  Take 7000 to 10,000 steps per day.  Eliminate sugar.  Reduce alcohol intake.  Realign Fitness Story and Nutrition Story.  Improve sleep and recovery.  Improve posture and mobility.  Think about an Ideal Day.	5 PLAN 6 MOVE 7 FUEL 10 THINK 8 RECHARGE 12 TRACK
SURVIVING GetFit	Manage time, energy and attention. Understand Performance Moments. Clarify Fitness Story and Purpose. Annual Recovery Planner. Eat based on the Performance Plate. Dial up intensity of physical activity. Self-talk and journalling. Start following the Better Week.	4 ENGAGE 8 RECHARGE 9 CONNECT 7 FUEL 6 MOVE 12 TRACK
STRIVING MatchFit	Optimise body, brain and PQ. Clearly articulate purpose. Performance psych and pre-performance routines. Add Seasonal Fitness and periodisation. Intermittent fasting and performance nutrition. Build in play, laughter and fun. Wearable tech and incorporate PQ. Better Week.	4 ENGAGE 9 CONNECT 5 THINK 11 PLAY 14 CASE STUDIES 12 TRACK

While I'm an eternal optimist, if you scored in the STRUGGLING zone then it's unlikely you'll be STRIVING in three months' time. It might take a year or more for some to get into the green zone. And that's okay – you just need to be realistic about your short-term goals. The most important thing is to begin.

#### **MATCHFIT ONLINE**

MatchFit in 8 Weeks (MF8) is a world-class digital program supporting you to achieve your personal best.

Designed by experts in learning and behavioural change, MF8 includes video tutorials, articles, podcasts, research papers, interactive displays, dashboards, accountability planners and nudges to help you stay on track.

The average MF8 participant:

- Reduces Biological Age by 3 years
- Increases MatchFit Calculator score by 10%
- Boosts energy levels by 25%

\*Requires at least 80% participation of all tasks. Meaning you do the work, you will achieve the results. (this sentence can be in smaller writing)

andrewmay.com/MF8



ou've read that MatchFit is a metric, a way of living, and an accountability process. You understand why it's essential to have a flourishing body and brain to survive in today's world. You've heard about my perfect storm and how I needed to dig deep and treat myself as a guinea pig, putting everything I'd learned over the years into practice, plus some new things too, to get my body and brain into peak condition.

If you haven't yet used the MatchFit Calculator to get a clear understanding of exactly where you are right now, put the book down and go to matchfitcalculator.com. Once you have your results, come back to this chapter to learn about the next steps in your MatchFit journey.

#### **FULL ENGAGEMENT AND POWER OF FLOW**

This program works. Period. But you need to commit. I don't want you to 'sort of' do it or just 'give it a crack'. I want you to be fully engaged. Full engagement is what psychologist Mihaly Csikszentmihalyi calls being completely immersed in what you are doing, or in a state of 'flow'. Csikszentmihalyi describes flow as 'the pleasure, delight, creativity and process when we are completely immersed in life'.<sup>1</sup>

In what I call the 'New World of Work' we've grown used to constant distractions, bouncing from one task to the next – toggling, tweeting, texting, Tindering – and never focusing on one thing at a time. This splinters our attention and as a result we rarely experience the power of flow.

In Part 3 of this book – ENGAGE – you'll learn about the primary levers that help you stay focused on what you are striving to achieve at work and in life. They keep you connected to what is important, and dramatically increase the number of flow moments you have each day. To support you as you do this, I want to introduce you to a concept called 'Performance Moments'.

#### PERFORMANCE MOMENTS

I came up with the term Performance Moments when moving from sport to the corporate world. I wanted to help my coaching clients understand what was important in their day and what was just noise. In sport it's easy to quantify this. You play the game for a set period of time, and the metrics are clear – go faster, kick more goals, jump higher, score more points, take more wickets or cover more distance than your opponent. Great athletes learn to cycle from one Performance Moment to the next throughout a game, match, competition or series.

When working with athletes and sporting teams, I am really clear about when they need to be in flow – which is to say, when they need to be fully engaged with a Performance Moment – and when they are in a transition period, conserving energy. This approach is one of the great lessons sport taught me that can be – in fact, *should* be – applied to the business world. For MatchFit I have adapted the Five Rs model used by sports psychologists, which illustrates how athletes transition between Performance Moments and conserve energy (Respond, Release, Replay, Recharge and Refocus).<sup>2</sup> Here's how it works in the MatchFit context:

# **ZONING IN AND OUT OF CRICKET**

Agame of Test cricket can last five days. That's right, international readers, we have a game played in primarily Commonwealth countries that goes for almost a week! Three sessions each day, which last for two hours each, for a total of a 30-hour game. It is impossible for a player to be in flow for that length of time. Great players have worked out a way to oscillate between Performance Moments, spending the rest of the game reflecting (only for a moment then moving on), relaxing (conserving energy) and refocusing.

Standing in the middle of the cricket ground, a batter prepares as a fast bowler sprints towards them, nostrils flaring, lungs billowing, preparing to launch a hard red-leather ball towards

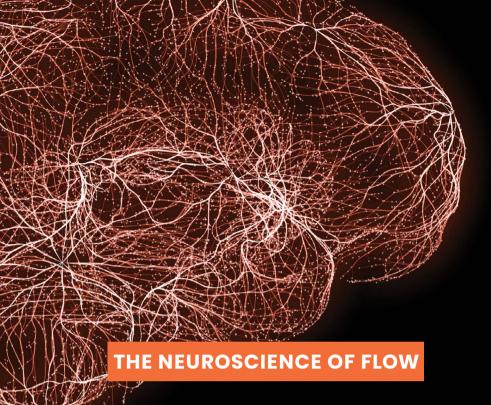
them at (in some cases) over 150 kilometres an hour. Yep, for a batter that definitely qualifies as a Performance Moment. And for the bowler, too. And the fielders. But after each delivery there's a break in play, as everyone gets ready for the next one. That's the time in which the really good players reflect on what worked well and what they can improve. They switch off and conserve their energy until the next Performance Moment.

I was taught early by some of the greats that the key is to switch on when you needed to, and equally important, switch off as well. Former Australian coach Bobby Simpson told me even if I batted for six hours in a day, I really only had to concentrate for five or six minutes. This is what Maysie calls Performance Moments. This concept intrigued me initially and then made great sense over time. By the end of my career I was much more interested in mastering the art of concentration than I was polishing up my cover drive or pull shot.

Justin Langer, former opening batter for
 Australian cricket team, current team coach

#### **MAKING WAVES IN TENNIS**

A five-set tennis match can last over five hours. Again, it's impossible to be fully engaged for the entire game. Thankfully, tennis gives the players 25 seconds of recovery between each point (or each Performance Moment), and further recovery time between each game and set. The best players are able to manage these phases, moving seamlessly from 'fighting' to 'relaxing' to 'planning' and 'visualising'. This wave of physical and emotional control has been examined by sports psychologist and author Dr Jim Loehr, who is convinced that it's what separates the good from the great.



There has been a lot of research into the magic formula for achieving flow in human performance. Flow requires clear goals, unambiguous feedback and assumes a perfect match between skills and challenge. Since flow requires a challenge, it is supported by a short-term stress state that assumes physiological protection (including enhancement of the immune system) to manage the challenge at hand. In recent years neuroscientists have discovered how our bodies change before and during flow state.

- Just before we achieve flow state, the decision-making part of our brains (the pre-frontal cortex) shuts down.
- During flow state, the dorsolateral prefrontal cortex, an area of the brain best known for self-monitoring, deactivates, thus blocking self-doubt and second-guessing while also liberating creativity.
- Brainwave function slows down from waking conscious beta waves to significantly slower brainwaves that are more akin to daydreaming mode, where we can move from idea to idea with little resistance.
- · The pleasure-inducing hormones kick in, including:
  - Noradrenaline, also known as norepinephrine, an important neurotransmitter and hormone that modulates the heart, blood vessels, liver and immune function.
  - Dopamine, a neurotransmitter involved with reward, motivation, memory, attention and regulation of body movements.
  - Anandamide, a mood regulator neurotransmitter associated with happiness.
  - Serotonin, an amino acid that stabilises mood and reduces anxiety.
- These performance-enhancing neurochemicals boost everything from muscle reaction time to attention, pattern recognition and lateral thinking.3

'Without stress you simply cannot achieve your goals as an athlete,' he says. 'Finding the balance between too much and not enough stress is a constant, must-win battle if you are to reach your full potential.'

Along my journey Maysie has reinforced the notion of slowing down to speed up – the power of channelling energy into the right pockets and not attacking everything at 100%. Starting cycling later than most and itching to fast-track my career, I was a bull at a gate. Mastering this is not easy for the fast-moving, high achieving, super-impatient athlete. Maysie's approach of finding a productive rhythm in the ebbs and flows of athletic life is the Holy Grail for optimal performance.

Rachel Neylan, Olympic cyclist, World
 Championships silver medallist

Lessons from sport are valuable, but sport and business are very different. When a former 'jock' stands up in front of a business audience and says, 'Now, the key to winning is to run faster, tackle harder and kick the ball between the posts,' it has little to do with business – it's mostly about talent and working hard. Yet there are a number of things businesspeople can learn from sportspeople. One key lesson is a different approach to looking after the body and brain for sustained performance (which is the primary focus of this book). Another is how to make use of performance rituals.

## **RITUALS TO REFOCUS**

Most athletes develop a series of rituals that help them transition throughout a game. These practices help them centre and stay calm under pressure, conserve energy, and get ready to perform when they need to. For example, many cricketers like to walk down the pitch between balls and do some 'gardening', patting the wicket down with their bat. They know, of course, that groundskeepers roll the wickets in between sessions of play with steamrollers that weigh over three tonnes, but the ritual helps them prepare for the challenge of the next ball.

Consider how the average office worker operates. In the morning they wake up and immediately grab their 'weapon of mass distraction' (ironically called a smartphone) and dive into Facebook, LinkedIn, Instagram, Twitter, Tinder, newsfeeds, WhatsApp and emails that arrived overnight. Then they race to the office and bounce from meeting to meeting, glued to their digital device. They have no clear transitions, and no delineation between Performance Moments.

Let's be clear: checking emails, surfing social media and texting people are *not* Performance Moments. At best, they are ways of communicating; at worst, they are pure distraction. It is estimated that, on average, we check our phones every 12 minutes. In a recent survey, one in 10 people reported checking their phone, on average, once every four minutes.<sup>5</sup> Research has shown that it takes, on average, 23 minutes and 15 seconds to return to the task following an interruption.<sup>6</sup>

Think specifically about your own job. Performance Moments in the corporate world are important meetings (not the incessant back-to-back meetings that make your diary 'look' busy), sales calls or appointments, one-on-one discussions with team members, presentations and market updates. Another way of identifying your Performance Moments is take a look at your job description and clarify what you are being paid to do. Everything else is noise. Take a moment to record them here.

My Performance Moments at work are:				

Now think about the Performance Moments in your personal life. What really matters?

When I ask a client what the most important thing in their life is, most mention their families and/or their significant other. I then ask them to check their diary for the previous two or three months and calculate how much time – quality time, not time spent with their devices in hand – they have invested in their loved ones. The answer can be confronting.

As any single parent will know, a relationship breakdown is brutal. When I started reassembling the pieces and getting back on my feet again after my divorce, my attention quickly shifted to how I was going to look after my kids. I make sure that when I have them, I am 'with' them. Performance Moments in my personal life include dropping my kids at school, picking them up after school or sport, talking and connecting each night when we sit down to have dinner; as well as being present in fitness sessions, having dinner and quality time with loved ones, and catching up with family and friends.

My Performance Moments in life are:

#### **USING THE THREE R'S**

Hopefully you now understand Performance Moments at work and at home. Ideally, from here on, you will bring more energy and focus to what really matters and learn how to transition between everything else.

To do that, let's focus on the Three R's. After each Performance Moment spend a small amount of time to Replay, Recharge, then Refocus.

#### Replay

Once a Performance Moment is over, replay what just happened.

- · What did I do that worked and why did it work?
- · What was I thinking and feeling?
- What didn't work and why?
- · What can I improve upon next time or what do I need to learn?

#### Recharge

Shifting state (physical and mental) to conserve energy.

- · What can I do right now to shift state and sustain energy?
- · Is my breathing calm, centred and controlled?
- Is my body feeling relaxed and calm? If not, what can I do to bring on a state of relaxation?
- Is my brain calm and controlled? If not, what can I do to switch off my mind?

#### Refocus

Preparing to move into your next Performance Moment.

- What do I need to bring to this Performance Moment?
- What role/relationship am I stepping into? What does success look like?
- Why is this important to me/others and how does it relate to my purpose/vision?
- What can I do right now to change state and be more focused?

When you first start this process, like any new skill, it will feel a little clumsy, apparent and perhaps even forced. After a while, transitioning between Performance Moments in this way will become habitual. Once you've followed this mental process for a month or two, I guarantee it will make a difference not only to the way you show up for what is important, but to also how you manage your energy, so you have plenty of petrol left in the tank for connecting with family and friends, and for your own passionate pursuits.

#### **HUMANS WORK IN WAVES**

When I was training as a 1500-metre runner, I was always in touch with my energy levels. As an athlete, it was my job to understand how my energy peaked and troughed throughout the day. And more importantly, before a competition I understood how to modulate my energy levels to ensure I was in the best possible performance state. When I finished competitive running and started working in elite sport as a physical performance manager, my job title should really have been 'energy sustainability manager', as it was my responsibility to ensure that the athletes got the most out of themselves during the season. When I moved from the playing field to the boardroom, I could never understand why so many people didn't know how to sustain energy levels; they just let 'energy' happen by default or accident.

What I knew intuitively as an athlete has now been explained by scientists as 'ultradian rhythms' – the science of how our bodies work in waves of energy throughout the day. Ultradian rhythms are natural body rhythms that occur in intervals of 90 to 120 minutes. This is followed by a 20- to 30-minute stretch of low energy levels, then the cycle starts over again. I call these 'performance rhythms'. Awareness of this concept becomes even more important during times of stress.<sup>7</sup>

Even if you haven't heard of ultradian rhythms before, you will have experienced them. Think back to when you've tried to work and concentrate for more than two hours. Beyond this time, your concentration patterns get fuzzier and fuzzier. It's why schools and education systems have blocks of work followed by little lunch, big lunch and afternoon milky – structured blocks of work interspersed with strategic breaks.

Performance Recovery Performance Recovery Moment Recovery

Performance Recovery Moment

Performance Recovery Moment

Performance Recovery Moment

Performance Recovery Moment

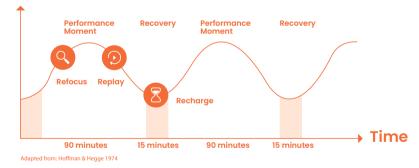
Time

A social networking company, The Draugiem Group, explored the habits of their most productive workers. The key was that for every 52 minutes of focused work, they took a 17-minute break. Many who did this didn't even need to work a full eight-hour day to be super productive.<sup>8</sup>

The majority of people work in a pattern of 'static linearity', trying to operate each and every day like a machine. Turning up to work, switching on and then working with minimal, if any, breaks, with no idea what constitutes a Performance Moment and what is just fill.

But not anymore. That's the old you. This book is going to transform your entire approach to work and life. And the MatchFit levers will help you prime yourself when you need to be present for a Performance Moment, and switch off when you need to relax, refocus and conserve energy. My aim is to get you proactively managing your energy levels. And my ultimate goal is to support you to develop PQ (Performance Intelligence).

#### Focus



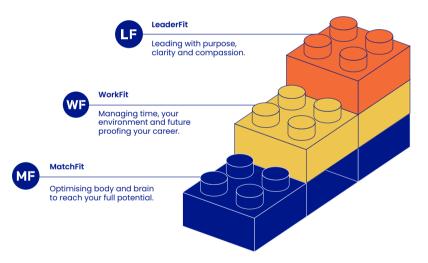
#### PERFORMANCE INTELLIGENCE

Performance Intelligence, or PQ, is a concept we developed at StriveStronger. We know that IQ or intelligence quotient is a measure of cognitive abilities. This was coined by psychologist William Stern in 1912, as a method for scoring intelligence tests. The term Emotional Intelligence (known as EQ) first appeared when Michael Beldoch wrote a paper in 1964; the term

gained popularity via a 1995 book written by author and science journalist Daniel Goleman.

EQ is the capability to recognise your own emotions and those of others, to discern between different feelings and label them appropriately, to use emotional information to guide your thinking and behaviour, and to manage and adjust emotions to adapt to environments or achieve your goals. Performance Intelligence (PQ) is more than IQ and EQ, although you need both as a foundation.

The concept of PQ emerged after working with a range of high performers in multiple domains (sport, entertainment and the performing arts, academia and the military). PQ is the capacity to recognise how physical, mental, emotional and environmental states affect your work and life. PQ incorporates the ability to manage your state and to use feedback to optimise performance.



Achieving high PQ is the culmination of being MatchFit, WorkFit and LeaderFit. MatchFit means getting your body and brain in shape for the challenges of working life. WorkFit means freeing up your diary to focus on the important things and managing your time and focus effectively. LeaderFit means personal mastery and what it takes to lead others in Performance Moments.

PQ applies to the way we turn up in relationships and the way we turn up at work, it applies to the way we perform in front of 10,000 people and the way we perform in front of one. PQ is more of a state; a state of action and application. PQ is a skill we can develop, with the right training and the right mindset. Our vision is to put you, and PQ, on the map.



# NEW APPROACH TO MANAGING PERFORMANCE

Physical activity, nutrition, mindset, connection, fun, laughter and wellbeing – all these factors are interrelated. When you pull on one lever, you activate the others. If you get smart and choose activities that pollinate each other, your behaviours become ingrained, you develop high-performance habits and your world changes.

Learning about and knowing how to engage the six MatchFit levers is essential to help you rise for your Performance Moments and conserve your energy in between. The levers are human factors (or behaviours) that are the foundation for optimal physical and psychological performance. Let's look at each one briefly now.

- MOVE: Physical activity is essential to overall wellbeing and influences how you feel, improves energy levels, reduces risk of disease, and improves brain function and mental health.
- FUEL: You are what you eat. Nutrition and hydration underpin cellular function, metabolism, energy levels and brain function.

#### **PRIMING**

Success leaves clues, and one of the clues I've seen from high performers in various fields is the notion of 'priming', by which high performers purposely create the physical and psychological state to ensure they are ready to compete and achieve. Scientists have shown they can cue people's unconscious minds to think and act in certain ways; they do this by training the brain to recognise certain cues that enhance our behaviour. If implemented correctly and used regularly, the MatchFit levers will become natural primers for Performance Moments.

- RECHARGE: Relaxation and switching off (physically and psychologically) are key to sustaining energy levels, reducing fatigue, nurturing creativity and enhancing emotional intelligence. Restorative sleep is vital for recovery, hormone balance and brain function.
- CONNECT: A clear purpose, flourishing relationships, sense of community and regular exposure to nature are fundamental to pleasure, meaning and fulfilment in life.
- THINK: The ability to learn, change and grow is essential to thrive in the modern world. A flexible and positive mindset is important for relationships, wellbeing and mental health.
- PLAY: Play and regular doses of fun keep us healthy and young at heart. Recreational play generates optimism, is the gateway to vitality, enhances relationships and boosts learning.

#### **CHOOSE YOUR OWN ADVENTURE**

The six MatchFit levers have been written so you can begin with any one of them. My suggestion, though, is to be guided by your MatchFit Calculator results, and start with the levers on which you scored lowest. If you're still not sure where to begin, lead with Chapter 6 MOVE, as once you wake up the cells in your body, your energy levels will increase and your brain will wake up. It's a great way to start getting MatchFit! But before we get started on the levers, I want to say a few words about the importance of planning.





et me give you an example. It's New Year's Eve and the fireworks crackle, hiss and pop. You grab a loved one (or maybe just someone standing nearby) and plant a big New Year's kiss on them and crack open another bottle of champagne. Then it happens: that little voice starts chirping in the back of your brain, and it doesn't stop for the remainder of the evening: 'This year I am going to get fit, lose weight, stop smoking, learn French and spend more time with the kids.'

You wake up the next morning, 1 January, long after the sun has come up. The evening's celebrations are already a distant memory. But that little voice with its New Year's resolutions is still bubbling away: 'This year I am going to get fit, lose weight, stop smoking, learn French and spend more time with the kids.'

You keep thinking about your goals, and you really do feel committed to achieving them. You even get started on some. For some reason, however, over the next few days you gradually let them slide, one by one, and in the back of your brain that little voice pops up again: 'It's okay; I'll just set them again next year. Next year I am going to get fit, lose weight, stop smoking, learn French and spend more time with the kids.'

Does this sound familiar? It's exactly what most of us do. Let's look at some facts about goal-setting:

- 25% of all New Year's goals are broken during the first two weeks of the year.
- 80% of all goals have been broken by the end of January.<sup>1</sup>
- We commonly have five or six unsuccessful attempts before we have success achieving goals.
- Less than 20% of people actually write their goals down.<sup>2</sup>
- Of those who do write down their goals, only 20% review them regularly.
- People who write down their goals earn on average nine times more than those who don't.3

Clearly the typical goal-setting process doesn't work. That's why I have a fundamentally different approach to behaviour change when it comes to getting people MatchFit, and it involves proper planning.

Before you start taking action in relation to the MatchFit levers – MOVE, FUEL, RECHARGE, CONNECT, THINK and PLAY – I *need* you to do some preparation. While this might seem counterintuitive, now is when I really need you to listen to me and follow my lead. Behaviour science shows us planning is essential and should precede initiation of any behaviour change.

Through planning we develop mental representations of future situations (the 'when' and 'where') as well as our behaviour actions ('how') in order to be effective in achieving our goals.<sup>4</sup> Getting this planning process right is one of the most important aspects of getting MatchFit, especially if you're starting from a low base.

#### **NEW YEAR'S GOALS RARELY WORK**

Psychologists have identified two main reasons why most New Year's resolutions don't work.

The first is known as 'false hope syndrome'. We set goals that are unrealistic and that do not align with our internal view. When you don't really believe the affirmations you are making about yourself, not only will you quickly forget them, it can further damage your sense of self-worth.<sup>5</sup>

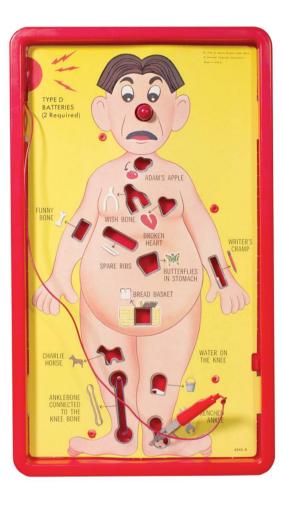
The second reason relates to our ideas about cause and effect. You may believe that if you lose weight or exercise more, you will automatically be happier or more successful at work. If this doesn't eventuate, you are discouraged and will likely revert to your former way of living.<sup>6</sup>

In order to succeed and make your goals stick, you need to change the way you think – about what you are trying to achieve, but equally importantly about yourself and your reasons for wanting change.

## **OPERATION YOU**

When I was a kid, one of my favourite board games was Operation (although as an exercise physiologist and with a master's in Coaching Psychology, I'm not quite sure about the anatomical accuracy). Anyway, the object of Operation to skilfully is the manoeuvre 'operating tweezers' to extract body parts like 'the bread basket', 'the Adam's apple' and 'water on the knee'. When you lose control of the tweezers, the light flashes and a buzzer goes off. Beep!

Let's play a little game of Operation YOU right now. What parts of your body have been setting off



your internal buzzer in recent times? Your physical red alerts might relate to sore ankles, painful knees, a tight lower back, an expanding waistline or chronic pain in your shoulder. And what about the flashing lights relating to your brain – flagging energy levels, reduced concentration, impaired memory, rising stress and anxiety, a lack of fun and laughter, and a feeling that life is all work, boring, stale?

I have lost count of how many times I've seen corporate workers commence a company-sponsored wellbeing initiative and jump straight into a fitness program, only to injure themselves or have pre-existing issues flare up. It's especially true of men aged over 40. It is vital to take stock of any issues before setting out to become MatchFit. Some of these 'buzzers' will improve as you progress through the program, but others may need medical attention before you begin.

Planning for the MatchFit program involves three key aspects:

- You need to prepare your body.
- You also need to prepare your mind, to ensure you have the right mindset before you start and the emotional conduit (the glue) to stick with the program.
- And finally, you need to organise your life so that you have the capacity in time, energy and attention to fully engage.

#### 1. PREPARING YOUR BODY

Think of your body as being like a car. We use cars every day to go the places we want to go and do the things we want to do. Some are old and some are young, some are fast and some are slow; but they can all be kept in great working order – if we choose to look after them.

You wouldn't pack your family or friends into the car and head off on a road trip without checking the tyres, oil, water, and ensuring the vehicle has had a recent service. So why do we treat our bodies differently?

*Disclaimer*: All information contained in this book is intended for general information purposes only. The information provided should not be relied upon as medical advice and does not supersede or replace a consultation with a suitably qualified healthcare professional.

## GP or healthcare professional check-up

If you've been inactive for the last six months or more, and/or if you're over 40, the first step in preparing for MatchFit is to make an appointment with your usual healthcare professional. In Australia, 90% of adults have at least one of the following red flags (modifiable chronic disease risk factors), and almost 50% have at least three:

- · Tobacco smoking.
- Physical inactivity.
- Low fruit or vegetable consumption.
- High or at-risk alcohol intake.
- · Hypertension.
- High blood cholesterol.
- Excess weight.<sup>7</sup>

Health checks in our 40s increase the detection of red flags and provide an opportunity for proactive health prevention.8

A health check generally involves documenting and/or updating your medical history and assessment for any health issues; performing tests if required and following up any problems; with additional advice and information on how to prevent potential future health problems, and on making positive changes.

The following table summarises the most frequent assessments performed during routine annual or biennial health checks:

Men	Women
Heart risk assessment (blood pressure and cholesterol)	Heart risk assessment (blood pressure and cholesterol)
Weight check	Weight check
Diabetes check (especially if >45 years of age and BMI >30)	Diabetes check (especially if >45 years of age and BMI >30)
Prostate check	Breast cancer check (mammogram especially if >50 years of age)
Eye check (especially if > 50 years of age)	Eye check (especially if >50 years of age)
Bowel cancer check (especially if > 50 years of age)	Bowel cancer (especially if >50 years of age)
Bone density check (especially if >60 years of age)	Bone density check (especially if >70 years of age)
Skin cancer check (especially if unusual moles or freckles)	Skin cancer check (especially if unusual moles or freckles)
Testicles check	Preconception and pregnancy check
Sexually transmitted infection or diseases screening	Sexually transmitted infection or diseases screening
Dental check	Dental check
Visual and hearing assessment (especially if >65 years of age)	Visual and hearing assessment (especially if >65 years of age)
	Pap smear (>18 years of age, or two years after first sexual intercourse)

At the very least, complete the MatchFit Calculator to establish a baseline for yourself. If you have any pain or stiffness – and if you score poorly on the Range of Motion assessment – I strongly recommend you see a physiotherapist or exercise physiologist to do a comprehensive posture profile and address any major muscle imbalances.

## **Executive Health Assessments (EHAs)**

EHAs are a comprehensive medical and physical health appraisal designed specifically for executives. The objective is to identify any potential health, lifestyle or medical issues, and to provide recommendations or referrals (if needed) to manage problems identified.

If my executive clients are over the age of 45, I don't give them an option: they book in for an EHA every 18 months to two years (if they are MatchFit), or every 12 months (if they are not). An EHA will include:

- Medical questionnaire and lifestyle history.
- Comprehensive physical examination, including musculoskeletal, neurological, cardiovascular, respiratory (spirometry/lung function) and audiometry (hearing) checks.
- VO2 max (fitness test).
- Urine analysis.
- Blood tests, including lipid profile, glucose, full blood count and biochemical markers including liver function.
- Body Mass Index (BMI) and/or height-to-weight ratio.
- Electrocardiography (ECG).
- *For men aged over 50:* Prostate-specific antigen (blood test screening for risk of prostate cancer).
- For men or women aged 50, or with immediate family history of bowel cancer: Faecal occult blood.

*Disclaimer*: I am the co-founder and part-owner of Australia's largest provider of EHAs, executivehealthsolutions.com.au, and am proactive in recommending EHAs to minimise health risk and pick up early onset of disease.

#### 2. PREPARING YOUR MIND

Now think about the flashing lights relating to your brain. If you're experiencing any symptoms relating to your mental health, it's important that you seek professional medical advice.

Let's look at the two main steps you need to take as you prepare your mind to engage with the MatchFit program.

### Step 1: Rewriting your Fitness Story

It's time to discover your Fitness Story. We all have one – a story in our heads about our relationship with fitness, a story that's normally defined at a young age. What's important to understand is that it's your Fitness Story that drives how you feel about

movement and physical activity and play.

Having been an athlete and physical trainer for most of my life, I'm one of those fortunate people who has a positive Fitness Story. After weathering my perfect storm, I was able to quickly get back into better habits regarding my training, nutrition, work life and recovery by reconnecting with this story.

#### SEEKING HELP FOR MENTAL HEALTH

If you've been feeling really sad, overwhelmed or depressed most of the time; and if you've had these feelings for more than two weeks, and it's affecting your ability to cope with life at home, work or school/college, you should seek help from your GP or usual healthcare professional. Your healthcare professional can assess whether other health issues may be contributing to your depression, and (if required) prepare a mental health treatment plan for you and refer you to specially trained mental health professionals.

It is okay to not always be okay. It can be hard to ask for help, but the sooner you do, the better it will be for you and your recovery.

I want you to think about your relationship with movement and exercise. Ask yourself the following:

- Do I enjoy exercising? If not, when did that start?
- Did I enjoy exercise/movement/physical play as a child?
- How do I feel when I exercise?
- What is it about exercise that I like/dislike?
- What physical activities do I most enjoy?

Then I want you to put sum up those thoughts in a paragraph or two, describing your relationship with physical activity. Here's mine:

#### **Andrew May's Fitness Story**

I have always enjoyed fitness, and loved achieving success in sport, especially athletics. I won my first state championships as a 12 year old. Through running and, later, sports conditioning, I have travelled the world, met amazing people, had incredible experiences and formed strong relationships. These have become the foundation on which I've built and sold a number of businesses.

Movement is a very important part of my life. I love engaging in a range of fitness activities, including cycling, swimming, weight training, yoga, team sports and kayaking/SUP. I form and nurture business relationships through fitness (especially cycling) and being fit and healthy is a large part of my identity. Every week I connect with my children through fitness activities. Fitness has been and always will be a significant part of my life.

Now it's time to write your Fitness Story.

## My (current) Fitness Story

Once you've engaged with the MatchFit program, you'll return to update and rewrite your Fitness Story. But I'm sure you can already see the benefit: creating an emotional link between what you want to be and what you need to do will help ensure you stick to the program and achieve your fitness goals.

## Step 2: Rewriting your Nutrition Story

Similar to your Fitness Story, this set of beliefs has a profound impact on your relationship and emotional connection with food. Ask yourself the following:

- What are my thoughts/beliefs in relation to food and nutrition?
- Do I have a healthy relationship with food?
- Is food enjoyment or an afterthought?

There are so many reasons why we choose the foods we eat including habit, health, comfort, boredom, taste, convenience and culture. The following are some of the main factors that influence our food choices:

- Visual appeal.
- Emotional pleasure through food.
- Choice of certain food items due to negative emotions.
- Need and hunger (physiological needs).
- Social context of eating (social norms and expectations, or cultural/social image to meet others' expectations).
- · Weight control.
- Health consciousness (choice of food items which are perceived as healthy).
- Price.
- Convenience.
- · Habits.
- Ethical aspects of food choice.
- Natural concerns (preference for natural foods from fair trade or organic farming.9

In addition, two big reasons why people choose unhealthy foods (especially alcohol and sugar) is addiction and self-medication. Sugar releases the feel-good hormone dopamine, making it an accessible go-to 'drug' during times of stress, and it can be very difficult to give up.<sup>10</sup>

Your environment has a massive impact on food choices. Spending considerable amounts of time with family, friends or colleagues who constantly eat crap makes it easy for you to justify why you too eat poorly. On the flipside, if you're around someone who cooks healthy meals, you're more likely to grow accustomed to eating well and to take time preparing healthy, nutritious meals. Travelling can also impact your routine and behaviours around food, which is why I've included a specific section in TRACK on Travel Health.

You may have a healthy relationship with food – your narrative might say: 'Healthy, home-cooked meals have always played a big part of family gatherings and enjoyment.' Or you might struggle, your internal dialogue saying: 'We were forced to eat overcooked veggies growing up, and I've always hated eating them.' Or perhaps: 'I've been counting calories for as long as I can remember and have been on every diet in the world – food is my nemesis.' It's important to be honest as you reflect on this.

## My (current) Nutrition Story

In order to make changes to the way you fuel your body, it is imperative to understand your Nutrition Story. Food is not the enemy; food is not just to keep hunger at bay; food is way more than just calories.

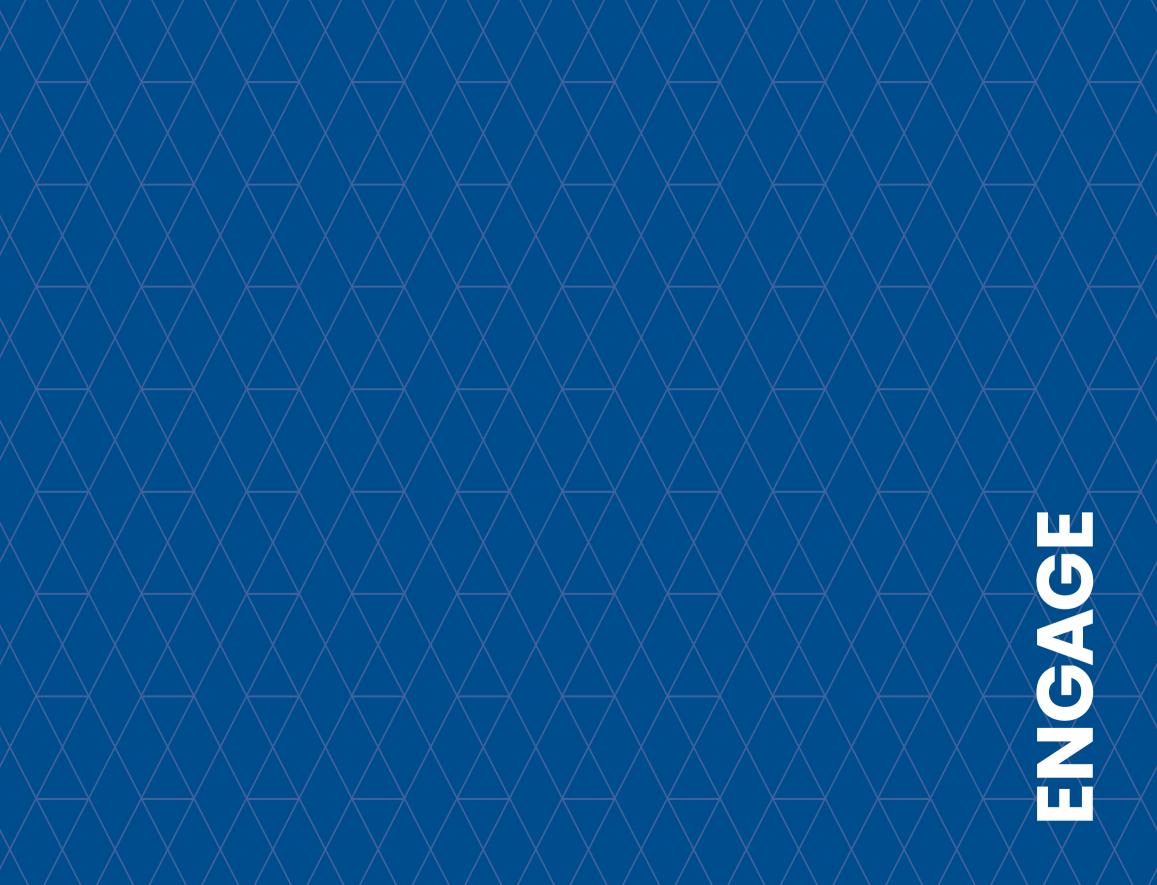
## **READY, STEADY...NOW GO!**

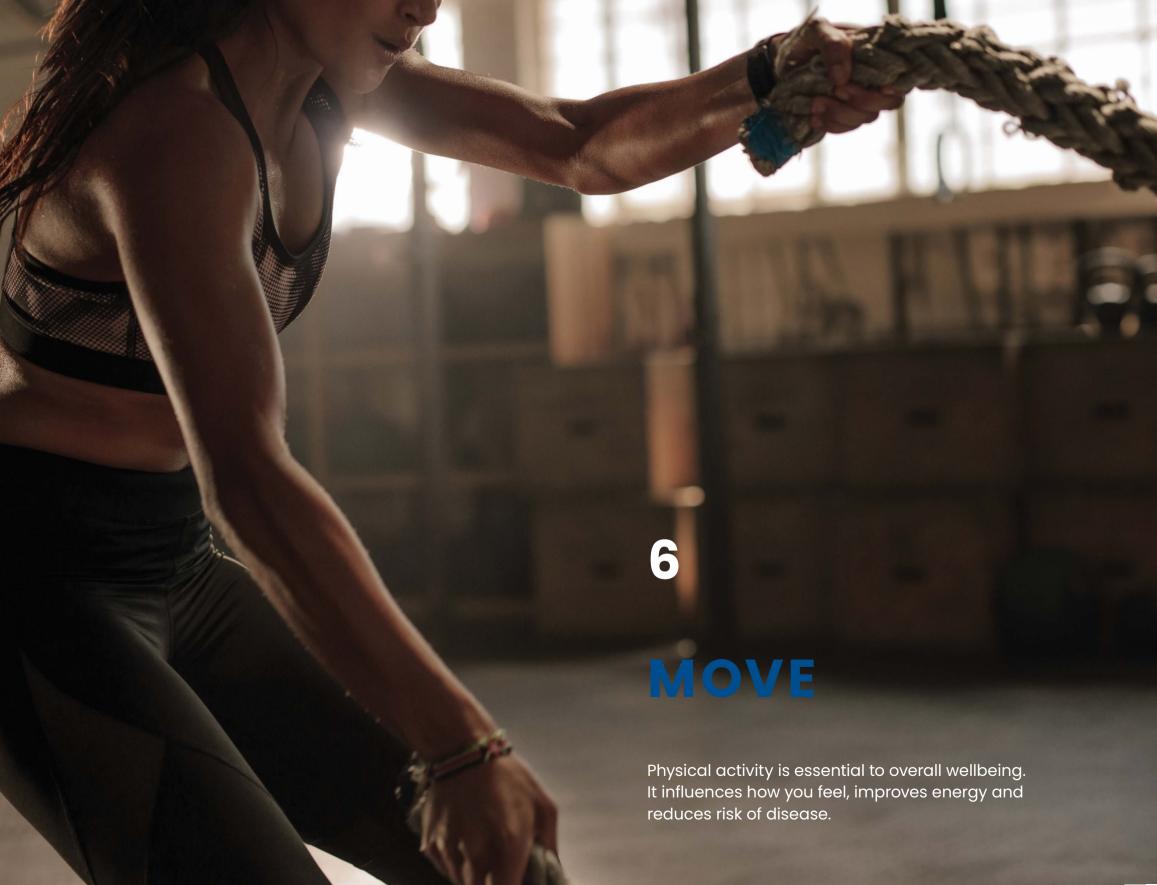
'Finally,' my coaching clients say after we have worked through these strategies to prepare their bodies, minds and lives for MatchFit. 'I am ready and motivated. Let's get into the program!'

Well, sort of. If you've been inactive for considerable time and your medical check-up reveals red flags like high blood pressure, high cholesterol, poor posture, poor flexibility and range of movement, low levels of cardiovascular fitness and poor strength levels, then for the next three to six months I want you to focus on getting ready to train. Really, this means focusing on getting healthy again (more on this in Chapter 6 MOVE).

I know this is a very different approach to what some so-called experts propose. However, I will put my credibility on the line and guarantee that you will dramatically increase your chances of success if you follow this strategy. And when you're healthy again, it's time to rev your engine and hit the accelerator.







I've been an athlete for most of my life and am one of the lucky few who has never found exercise to be too much of a chore. But what I've learned after running corporate fitness centres, working as a personal trainer for more than a decade, training some of the world's best athletes and working with thousands of corporate clients, is that many really smart people fail to make the connection between physical activity and improved performance in other areas of their life. My intention in this chapter is to show you that regular physical activity is *absolutely* essential if your goal is to reach your full potential. Let's start with the basics.

#### **ALIGNING YOUR FITNESS STORY**

In Chapter 5 PLAN we discussed the importance of getting ready and aligning your Fitness Story, which increases your chances of success. The first part of this chapter introduces you to what you need to know when it comes to movement and fitness training. Then we'll move on to specific strategies for improving your fitness *and* keeping your fitness training varied and fun – yes, it really can be a lot of fun.

Realising the myriad benefits physical activity has on your body, brain, relationships and overall wellbeing helps you rewrite your Fitness Story and will validate why fitness lights up so many other areas of your life. There are three basic types of activity that sit under MOVE, but before we explore those I need to set one of the biggest fitness myths straight.

# PHYSICAL ACTIVITY IS NOT ABOUT THE WAY YOU LOOK!

A lot of people in the fitness industry are wrong when they peddle the notion that the main reason to exercise is to lose weight and look better. I'm happy to stick my hand up and admit I was guilty of pushing this outdated ideal too, back when I had a PT business in my 20s and ran fitness centres in my 30s. The point is that we've missed a major opportunity to 'sell' exercise.

Physical fitness has nothing to do with the way you look. Instead of thinking about having chiselled pecs or long, slender legs, why don't we advertise how fitness makes you smarter, improves memory, helps increase energy levels and reduces the risk of brain deterioration and dementia?

We all know that regular fitness training improves your body shape and helps you get into the skinny black dress or those budgie smugglers you bought before life 'caught up' with you. However, we need to see exercise as the magic elixir it is, capable of transforming the way our brain functions, and of keeping us healthier and happier throughout our (longer) lives. Let's look at seven key benefits.

## 1. Physical activity makes you smarter

Fact: regular exercise helps you grow more brain cells. Recent research shows exercise helps prevent age-related decrease in brain matter, enhances cognitive flexibility and reduces the risk of developing dementia. But simply having more brain cells isn't enough. They need to be connected and in communication with other parts of the brain in order to be useful. A good way to pull these new neurons into the brain's superhighway is to learn something new – maybe a language, or a musical instrument.

Once you have those extra neurons firing, you need to make them nimble. This is where exercise helps again, improving the connection of the neurons by increasing levels of brain-derived neurotropic factor (BDNF). Most brain changes have occurred from cardiovascular exercise, like walking or running, but all forms of physical activity provide benefits. So whether you're training for a marathon or walking to the shops, the message is clear: getting moving will improve your brainpower.

## 2. Physical activity boosts your energy levels

Fact: exercise builds more mitochondria, which are responsible for producing energy in the body. When you feel foggy and fatigued at work, the last thing you feel like doing is exercise. However, even a small burst of activity, as little as 20 minutes, will dramatically boost your energy levels. A University of

Georgia study reported that sedentary people who normally complained of chronic lethargy increased their energy by 20% and decreased fatigue by as much as 65% by participating in regular, low-intensity exercise.<sup>2</sup>

### 3. Physical activity helps you retire

Fact: exercise improves the quality of your life post-retirement. Way too many people neglect their health for years and then retire and are unable to do simple things like play golf, pick up their grandkids or go on a cruise. Sedentary living speeds up age-related declines in muscle mass, lung function, strength and aerobic endurance. Exercise can attenuate this decline, resulting in reduced risk of cardiovascular and other diseases. Keeping yourself fit as you age also helps you complete the activities of daily life with ease, keeping you truly independent for longer.

## 4. Physical activity inspires your children

Fact: overweight parents have a much higher likelihood of having overweight children. I received a fair bit of blowback on social media for having the audacity to talk about this on *ABC News Breakfast*. Although there are many causes of obesity, parental weight and lifestyle habits influence the weight of their children. Obesity in fathers is associated with up to a fourfold increase in risk of obesity at the age of 18 years in both sons and daughters. With mothers up to an eight-fold increase risk of obesity has been observed in daughters. So getting active is good for you – obviously – but it's also an investment in the future of your children. In fact, evidence suggests that changing parents' behaviours is more effective than solely trying to change children's behaviour.

## 5. Physical activity improves your mood

Fact: physical activity has been proven to be as successful as some antidepressants in treating mild forms of depression.<sup>4</sup> According to Beyond Blue, in any one year around a million Australian adults have depression, and over 2 million have anxiety.<sup>5</sup> The good news is that depression can be treated many ways, including by psychological counselling, medication and exercise. One study

tested exercise against Zoloft in treating depression, and found that either, or a combination of both, were equally effective in reducing symptoms. And the benefits continued for those who kept up their physical activity after the study finished.<sup>6</sup> The major advantage of exercise over medication is that there are no nasty side effects. Being physically active also helps regulate the systems affected by depression, improving sleep, boosting your mood and increasing your energy levels. (As with all mental health issues, though, please consult a medical professional before changing your treatment.)

## 6. Physical activity improves relationships

Fact: research has demonstrated a relationship between exercise and social cohesion. Over the years I've developed friendships through my fitness activities. I have an eclectic mix of 'fitness mates' with whom I do weights and swim; yoga; run and play tennis; paddle; kick the footy; cycle; go dragon-boat racing; and snow-skiing. Through all these fitness activities I have sustained old friendships and grown new bonds.

## 7. Physical activity improves your sex life

Fact: pumping in the gym improves the quality of 'pumping in the bedroom'. Come on. If the first six reasons haven't fired you up, surely this will! Staying in shape improves circulation and boosts testosterone. Exercise also improves your self-esteem.

There are seven compelling reasons why physical activity has nothing to do with the way you look. If I could sell you a potion with all of these benefits, you'd pay me thousands of dollars. But there is no potion – just put one foot in front of the other and move whenever you can. And the bonus? Regular fitness training *will* change your body shape and make you look better. But consider that an added benefit, not the main reason why you should train regularly.

Now let's explore the three key types of physical activity: incidental movement, planned fitness and disguised fitness.

#### INCIDENTAL MOVEMENT

Incidental movement includes any activity built up in small amounts throughout the day. For example, walking to and from your car or the bus stop, playing with your kids in the local park, and doing household chores like taking out the rubbish, washing up and mowing the lawn.

Human beings are designed to move. In the most basic sense, we exist to burn up and then replenish our energy stores. When you get this balance right, your body is fit, vital and healthy. When you mess around with it, you get fatigue, inflammation and the onset of disease.

When did we stop seeing movement as an opportunity, or as fun play, like children do, and instead as a major inconvenience? The average adult now moves 7 to 10 kilometres less per day compared to 1970. And we're paying the price for it with our declining physical and mental health.

We need to get out of our bubble-wrapped, technology-driven, movement-restricting modern lives and return to the way we were made to be – that is socially-connected, physically active, playful, adventure-seeking animals. Even if it's only for a few hours each day.

## Sitting is killing you

It's official: sitting on our ever-expanding backsides is killing us. Think about everything you do in a day and then tally up how much of that requires sitting: working at your desk, driving, commuting, eating, surfing the internet, watching TV. It's clear most of our waking time is spent on our backsides. That flatlining of muscle activity has knock-on effects for our hormone levels too. After just one day of sitting, insulin response decreases and your risk of developing diabetes increases. Your body stops producing lipoprotein lipase, which essentially means you stop burning fat.

Stand up and look at the following facts:

 An Australian study showed that the longer you sit, the greater your risk of dying early. Adults who sat for more than 11 hours a day had a 40% increased risk of dying

- within three years, compared to people who sat for less than four hours a day.<sup>9</sup>
- A quarter of young adults aged between 18 and 24 only walk an average of five minutes a day. The average British woman was found to walk 12 minutes a day, while men walked an average of only eight minutes.<sup>10</sup>
- Researchers from the University of Queensland found that every hour we sit down watching TV cuts 21.8 minutes from our lifespan, which is double what another study estimated smokers shorten their lives by with every cigarette.<sup>11</sup>

But we don't need research to tell us the average adult is moving way too little. Take a look at the people sitting next to you in the office, on the bus, in the airport, on the train. Lack of movement is weighing us down.

#### A DAY IN THE LIFE OF DAY SPA DAVE

A coaching client of mine tracked how many steps he was taking in an average day. The results highlight why his friends had given him the nickname 'Day Spa Dave'.

- Alarm clock bellows and Dave falls out of bed and walks to the toilet (10 steps).
- After showering, he dresses and walks to the kitchen to make a cup of coffee and throw down some cereal (25 steps).
- He walks out the door, presses the button on the lift and arrives at the car park, walks to his car and presses a button to open the front door (45 steps).
- He sits in his car for 30 minutes while driving to a car park in the city;
   he circles a few levels to find a spot close to the lift (zero steps).
- Walks to the lift, presses another button, leaves lift and walks to his office (220 steps).
- Sits in his comfortable chair (with wheels), a colleague brings him a coffee and places it on his desk, and Dave doesn't stand up until 11 am (zero steps).
- Walks to the toilet at morning tea time, then catches a taxi to client meeting and then taxi back to his office (430 steps).
- Walks to coffee shop below office for lunch (80 steps).
- Back in the office for back-to-back meetings all afternoon, sitting down the majority of time (90 steps).
- Walks to the lift, presses a button, gets out of lift then walks back to his car (220 steps).
- After driving home, Dave has a cup of tea with his wife and talks about his hectic day; he then takes a quick shower and ducks out to get takeaway for dinner (320 steps).
- The dishes are stacked in the dishwasher, and it's time to hit the couch to watch TV for a few hours before bed (30 steps).
- Dave switches off the TV, brushes his teeth and calls it a night (30 steps).

Total steps taken: 1500. That compares to a daily goal of 8000 to 10,000 steps. This explained why Day Spa Dave's weight had gradually crept up over the past few years. It was the perfect evidence that he needed to get moving.

#### Fire up your metabolism

The biggest challenge Day Spa Dave has is getting his metabolism burning. Just like nutrition, exercise can be a tricky equation, with *how* we accumulate activity being just as important as the total amount. Your metabolism, or the amount of energy you burn each day, is made up of three main components:

- The amount you burn at rest (50-75%)
- The amount you burn from digesting food (5–10%)
- The amount you burn from physical activity (20%)

Obesity expert Dr James Levine has identified two types of physical activity and argues that it's useful to consider them separately. First there is active exercise – like a personal training session or playing sport. Then there's 'non-exercise activity thermogenesis', or NEAT, which Dr Levine and co-author Lorraine Foster define as 'the energy expenditure of all physical activities other than volitional sporting-like exercise'. NEAT includes 'all those activities that render us vibrant, unique and independent beings such as dancing, going to work or school, shovelling snow, playing the guitar, swimming, or walking in the modern mall'. 12

Increasing the amount of exercise you do is the key to cutting health risks, boosting your energy and keeping your body fit. But are you better off going for a run or just clocking up extra steps?

The answer is both. Even if you meet the recommended guidelines of 30 minutes of moderate-intensity activity per day, there are still 16 waking hours of time where you could be doing NEAT activities instead of sitting.

This is mainly due to the influx of technology and laboursaving devices, which is causing us to sit for longer than ever before. So the message is clear: incidental exercise every day is just as valuable as going for a run or hitting the gym – and the more of it we do, the better.

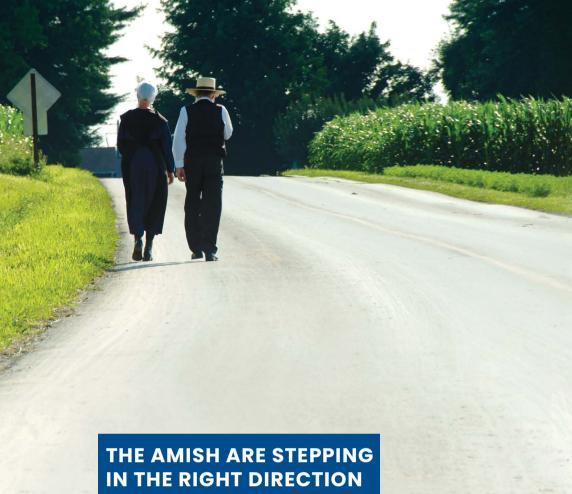
#### Movement, mitochondria and 10,000 steps

Healthy circulation is the key to supplying the body with energy, and the key to improving circulation is movement. To ensure energy is readily available throughout the day, you need the right fuel and regular movement. How much movement exactly? 10,000 steps will get you in the game.

The 10,000 steps concept was initially formulated in Japan in the lead-up to the 1964 Tokyo Olympics. Rather than being based on science, it was a marketing strategy to sell step counters. The concept was revisited by Australian health promotion researchers<sup>13</sup> – recommending a *minimum* of 150 minutes of moderate intensity physical activity a week. This equates to 30 minutes on most days. Most people walk between 4000 to 6000 steps per day yet the minimum number of steps for positive wellbeing or physiological change to occur is 7500 steps. Setting a daily target of 10,000 steps is generally between 60–100 minutes of walking depending on the speed of the steps, or a total distance of 8 kilometres.

#### 10 WAYS TO FIRE UP YOUR METABOLISM

- 1. Practise fasting. Intermittent fasting helps reduce inflammation<sup>16</sup> and limit energy intake, both keep our mitochondria healthy.<sup>17</sup>
- 2. Restorative sleep. Sleep deprivation causes mitochondrial stress.<sup>18</sup>
- 3. Eat less sugar. Sugar puts stress on the beta-islet cells of the pancreas and the mitochondria in these cells begin to burn out and even die.<sup>19</sup>
- 4. Eat more veggies (and fat). Mitochondria love vegetables and good fats.
- Regularly check with your GP about removing medications you don't need. Some medications are associated with mitochondrial damage.
- Take a cold shower. Short bursts of cold water have been found to stimulate mitochondria biogenesis.<sup>20</sup>
- Get some sunshine. Vitamin D is necessary for mitochondrial function and cell health, so get outdoors more often (just make sure you don't get burned).<sup>21</sup>
- 8. Go organic or pesticide free. Studies have found that pesticides can cause mitochondrial dysfunction so, as much as you can choose organic, fresh foods.<sup>22</sup>
- 9. Add resistance. Lift weights, both high and low-load resistance training stimulates mitochondria production and function.<sup>23</sup>
- See red. Resveratrol, a plant compound found in relative abundance in red wine and blueberries, has a protective effect on mitochondria, so raise a glass to good health and incorporate berries into your diet.<sup>24</sup>



The majority of Amish people of North America are farmers. Their simple non-technology, non-automated lifestyle equates to each

Obesity is rare in this population and so too are many of the 'Western lifestyle diseases'.

Taking 10,000 steps per day will not dramatically increase your VO2 max, but it is important for blood flow and circulation – and for healthy mitochondria.<sup>14</sup>

day walking some 18,000 steps for men and 14,000 for women.

Mitochondria are the tiny rod-shaped energy providers for the cells in our brains, muscles and hearts, which turn oxygen into the molecules that fuel muscles. As we age, mitochondria become damaged and are less efficient at powering our cells. But – and this is an exciting 'but' – we can reverse the damage.

Research shows mitochondria regenerate in response to even a few days of exercise and regular movement. Short bursts of high-intensity interval training have been found to increase mitochondrial function,<sup>15</sup> along with resistance training and steady-state cardio. While short, sharp bursts of exercise are the most efficient way of producing more mitochondria, it doesn't have to be intense – we just have to get moving consistently. If you fire up your mitochondria, you fire up your energy levels.

#### **20-SECOND FITNESS SNACKS**

Canadian researchers, the same ones who introduced us to the six-minute workout then the one-minute workout, have discovered a 20-second exercise 'snack' several times throughout the day leads to health and fitness benefits.

Research participants were asked to sprint stairs for 20 seconds three times a day. Before each set they performed a dynamic warm-up including 10 jumping-jacks, 10 air squats and 10 lunges, with a one-minute walking cooldown after.

After six weeks, participants showed a 5% increase in aerobic fitness, compared to the sedentary control group. A previous study found exercise snacking equated to a 13% lower mortality risk and 15% lower risk of cardiovascular disease.

Emmanuel Stamatakis, professor of physical activity, lifestyle and population health at the University of Sydney says, 'There are countless ways to fit physical activity into our lives in practical ways that do not demand much time. Walking up a few flights of stairs daily, adding "walking sprints" or parking the car a bit further away and carrying groceries for 50 to 100 metres makes a cumulative difference.'

Considering Australian adults spend on average 13 hours each week watching television and over seven hours a day on electronic devices, 'snacking' could be a very important part of future health programs.<sup>25</sup>

#### **PLANNED FITNESS**

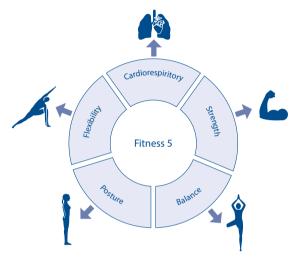
After you've increased daily movement and stimulated your marvellous mitochondria, it's time for some 'planned fitness'. This is what we typically think of as exercise. Running, swimming, riding, lifting, bending, playing sports.

Planned physical activity incorporates five types of training that I call the Fitness 5:

- Cardiovascular: Heart-lung endurance.
- · Strength: Developing lean muscle mass and delaying ageing.
- Flexibility: Joint and mobility exercises to reduce injury risk and improve movement efficiency.
- Balance: Proprioception and ability for your body to recognise where it is in space.
- Posture: The framework that holds your body and limbs when standing, sitting or lying down.

#### FITNESS 5

Traditional fitness programs focus on the 'Training Triangle' – cardio, strength and flexibility. Over the years I've discovered the need to add posture and balance to the mix to ensure a more rounded approach. Each Fitness 5 activity brings different health and fitness benefits, so it's important to include them all as part of a balanced program.



#### 1. CARDIOVASCULAR FITNESS

Cardiovascular fitness refers to the ability of the circulatory and respiratory systems to supply oxygen to muscles during physical activity. These systems become more efficient by enlarging the heart muscle, increasing stroke volume (pumping more

## BENEFITS OF IMPROVING CARDIOVASCULAR FITNESS<sup>26</sup>

- Decreased risk of premature death from cardiovascular disease.
- Improved longevity: generally speaking, the fitter you are, the longer you live.
- Higher energy levels and better ability to cope with stress.
- Enhanced physical and psychological wellbeing.
- · Better health outcomes and quality of life.
- Reduced excess weight, lower blood pressure, and lipid profile.

blood each heartbeat) and increasing the number of small arteries. In other words, exercise improves the respiratory system by increasing the amount of oxygen that is inhaled and distributed to body tissues. It makes our engine more efficient at using and sustaining energy.

Cardiovascular activities	Cardio play	Social/team sports
Running	Surfing	Tennis
Swimming	Snow skiing	Football/soccer
Cycling	Kicking a ball	Netball
Rowing	Playing at park with kids	Basketball
Kayaking	Aerobics	
Stand up paddle board	Dancing	
Cross country skiing		

#### VO<sub>2</sub> Max

VO2 Max is considered the golden method of assessing cardiovascular fitness and is the maximum amount of oxygen your body is capable of utilising in one minute. The point at which oxygen consumption plateaus defines VO2 max and is measured in millilitres per kilogram of body weight per minute (ml/kg/min). VO2 is considered the best indicator of cardio respiratory endurance and aerobic fitness. The higher your VO2 Max score, the more cardiovascular strength you have. The highest score recorded was 97.5 by Oskar Svensden (former cyclist, aged 18) followed by Norwegian cross-country skier Bjorn Daehlie at 96. Cadel Evans scored 87, Lance Armstrong 85 and David Beckham 67. The highest female score is 78.6 ml/kg/min by Joan Benoit (1984 Olympic marathon champion). VO2 Max is measured in a physiology lab.

#### Measuring heart rate

VO2 Max testing is not accessible for many people, so I recommend heart rate as one of the easiest and most accurate ways of measuring exercise intensity. Maximum heart rate (MHR) is the highest heart rate you can achieve and the most popular method to calculate MHR is:

MHR = 220 - (your age)

## Calculating resting heart rate (RHR)

Your resting heart rate (RHR) is measured first thing in the morning, just after you have woken. Count your pulse for 15 seconds and multiply by four. Average this reading over a week to find your RHR. If you have a wearable with built-in heart rate monitor take an average over the past two to three weeks.

## **Heart Rate Training Zones**

Within each training zone different physiological effects take place.

Zone	Intensity	Description
The Energy Efficient or Recovery Zone	60% to 70%	Fat is an abundant source of energy for the endurance athlete and training within this heart rate develops the body's ability to feed working muscles more efficiently. The other advantage of training in this zone is allowing muscles to re-energise with glycogen.
The Aerobic Zone	70% to 80%	Trains the cardiovascular system by improving ability to transport oxygen to and carbon dioxide away from working muscles. This zone is also ideal for developing local muscle strength.
The Anaerobic Zone	80% to 90%	Enormous benefits can be gained. Glycogen stored in the muscle is a predominant fuel source. Lactic acid occurs when the body can no longer remove the lactic acid from the working muscles quickly enough.
The Red Line Zone	90% to 100%	Trains fast twitch muscle fibres and helps develop speed. This zone is reserved for interval training and only very fit people are able to train effectively within this zone.

#### 2. STRENGTH TRAINING

Strength training is any exercise that causes our muscles to contract against an external resistance. Resistance training works by causing microscopic damage or tears to the muscle cells, which are quickly repaired by the body; the process helping muscles grow stronger. Importantly, muscles heal and grow when you aren't working out, which is why it's necessary to leave time between workouts for adequate recovery and growth.

Gym	Group classes	Outdoors	Other
Olympic lifting	Cross Fit	Flintstone Fitness	TRX
Bar bells	Group PT	Outdoor gyms	Kettle bells
Dumb bells	F45	Body weight	Aqua Fitness
Medicine ball	Pump	Calisthenics	
Cables	Circuits		



#### BENEFITS OF RESISTANCE TRAINING

- Improves muscle strength and protects joints from injury.
- Can help slow and even reverse the ageing process.
- Increases energy consumption at rest, helping reduce body fat.
- Improves posture and minimises risk of osteoporosis by improving bone density.
- Can reduce symptoms of chronic conditions including arthritis, back pain, depression and diabetes.
- Improves mood, self-esteem and confidence.
- Aids hypertension control by helping to lower moderate to high blood pressure.

#### Return to primal

There is wisdom in returning to our most basic way of being. If you were walking around 5000 years ago you would be fit, strong and lean, with a well-proportioned body that never required you to have an expensive gym membership gym or personal trainer. A primal existence required you to walk 8 to 10 kilometres each day (well over 10,000 steps), run long distances and sprint to chase animals, and use your body to lift, carry, chop and pull.

The simplest approach is to go back and repeat those primal movements our ancestors did – the core activities our bodies were designed to perform – this includes twist, pull, bend, push, lunge, squat and gait (crawl, walk and run). They incorporate compound exercises (working more than two muscle groups at once) and are time efficient, burn more calories and can be performed with weights in the gym, using your body weight or in your backyard with home-made equipment like PK showed on a recent segment we did on *ABC News Breakfast*.

## Lifting makes you lean

Weight training was once seen as the domain of footballers and Olympic athletes. But I want to let you in on a secret: one of the fastest ways to strip fat and build lean build muscle is with resistance training.

The approach to losing fat has shifted from purely cardio to a combination of resistance training and cardio<sup>27</sup>. A recent study put two groups on energy-restricted diets and instructed one group to walk regularly and the second group to lift weights. Eighteen months later the weight-lifting group had lost more fat while retaining lean muscle.<sup>28</sup>

Resistance training is a more efficient way to get fit. As your body adjusts to training load you have to increase intensity. With aerobic exercise, this typically means exercising for longer, but with strength training you can add more weight or move through the repetitions slower. The more muscle you are building the more energy you are expending. This drives up basal metabolic rate meaning you are burning fuel just by sitting there<sup>29</sup>.

When my publisher suggested I get into 'super shape' for a

photo shoot for this book, I rallied a world-class team including Teresa Boyce, strength trainer Dan Bradley and former Australasian and two-time Mr World body building champion Nick Jones to design a 6 Week Shred. To discover how I stripped over 3 kilograms of fat and added 1 kilogram of muscle in a short time-frame go to andrewmay.com/holygrail.

#### **WASTING AWAY WITH SARCOPENIA**

Sarcopenia comes from the Greek term 'poverty of flesh' and describes the loss of muscle mass and strength as we age. I believe sarcopenia is as much, if not more of a problem than osteoporosis – but we hear very little about it.

Being 'sarcopenic' means losing power, strength and functional decline – important predictors of balance, the occurrence of falls and admission to nursing homes<sup>30</sup>. Sarcopenia increases the risk of Type 2 diabetes 'as skeletal muscle is the largest insulin-sensitive tissue in the body. Low muscle mass results in reduced capacity for glucose disposal and mitochondrial dysfunction,' explains the *Medical Journal of Australia*. The average adult loses 3–8% of their muscle mass each decade after age 30. When we're young, muscle mass contributes up to 50% of total body weight, but by the time we're 80 it's 25%.<sup>31</sup> What we lose in muscle, we make up for with fat with the average adult gaining approximately 1 pound of fat every year between ages 30 to 60 and losing half a pound of muscle over that same time span.<sup>32</sup>

#### Sarcopenia is preventable.

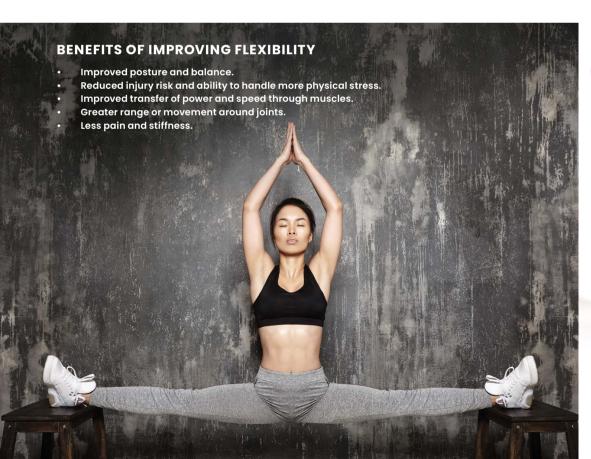
Optimising our diet and regular strength training are the most important strategies for preventing sarcopenia and enhancing physical ability.<sup>33</sup> The nutrients that have been most consistently linked to the reduction in risk of sarcopenia include protein, vitamin D (sunlight, oily fish, eggs and cheese), antioxidant nutrients (brightly coloured fruits and vegetables) and long-chain polyunsaturated fatty acids (oily fish, flaxseeds and walnuts).<sup>34</sup> The second and most important piece of the sarcopenia puzzle is regular resistance training.

#### 3. FLEXIBILITY

Being flexible means having the ability to move a joint through its full range of motion. Flexibility is a much-neglected aspect of physical fitness and sports training but it's a crucial component. Tight muscles can also lead to musculoskeletal imbalances that may cause injury and pain. People who run, cycle, or just sit at a desk all day are especially likely to have tight hamstrings and hip flexors, which can result in lower back pain.

Classes	Flexibility play	Other
Yoga	Ballet	Massage
Pilates	Dancing class	Facilitated stretching
Tai Chi	Barre	PNF stretching
Feldenkrais	Acroyoga	Swimming
Barre		Foam Rollers
Range of Movement		Stretching with bands
		Assisted stretching

Stretching is not my preferred mode of exercise and I've never said to my friends 'come over on Saturday afternoon to watch the footy, enjoy a few beers then we'll have a good stretch'. However, every Tuesday night I have a 'yoga date' at Power Living and I now implore all of my clients to include yoga, pilates or stretching/mobility in their weekly routine.



# WHY REAL MEN (AND WOMEN) NEED TO DO YOGA

I've had an on again, off again relationship with yoga. I was first introduced to the stretchy stuff in my early 20s in Hobart, when our running coach thought it'd be a good idea to try. After a few months it did feel good, but I was too young to appreciate the benefits and after Bushy and Shagger had a farting competition in the middle of Shavasna, our instructor barked at us to 'stop giggling like teenage boys' and to not bother coming back. Ever.

Take two: working with NSW Cricket a decade later, I introduced yoga to the playing squad and was surprised at how well it was received. Even Mark Waugh, who initially told me cricketers doing yoga was ... let's just say Junior didn't think it would work.

Take three: after weathering my perfect storm I realised I needed to make yoga a regular part of my weekly fitness routine. My body (and brain) feel as good as they have for a long time. My injuries have evaporated, my range of movement has improved dramatically, and my mind is much calmer and more creative. Here are seven reasons to include regular yoga classes:

- Improves range of movement and mobility. As we age, our muscles and connective tissue become tight and restrictive. Hatha yoga improves flexibility, muscular strength, endurance and balance.<sup>35</sup>
- Calms the mind and improves mood. Yoga forces you to slow down, to be still, to breathe. It's an effective treatment for mood disorders like depression, as it boosts serotonin, and reduces stress and anxiety.<sup>36</sup> Power Living co-founder and former paratrooper Keenan Crisp says 'if it all gets a bit too heavy just calm the mind, breathe and focus on the pose'.
- 3. Boosts concentration levels and creativity. Yoga has unexpected benefits for workplace performance and productivity with studies showing improvements in memory and concentration.<sup>37</sup> Yoga teaches us to breathe deeply and be in the moment, getting more oxygen to your brain.
- 4. Improves breathing patterns. People have lost the ability to perform slow, deep, relaxed breathing. Controlled breathing improves the oxidation of the blood, and the meditative effect of yoga has been shown to induce parasympathetic activation.<sup>38</sup>
- Sculpts and strengthens your body. While traditional resistance training focuses on shortening a muscle through lots of repetitions for strength, yoga concentrates on isometric and eccentric strength. Yoga poses strengthen and lengthen the entire body.
- 6. Forges new social connections. While yoga once had a reputation for attracting spiritual hippies and broken birds, modern yoga classes attract a diverse range of people. Ben Lucas, former professional rugby league player and owner of Flow Athletic says, 'when you are around like-minded people it is only natural to form connections with them. Going through change draws us together'.
- 7. Improves your sexual function. It's thought the improved tone of pelvic floor muscles, endocrine function (sex hormones), reduced anxiety and better mood are responsible. I'm sure the improved flexibility doesn't hurt either!

#### 4. POSTURE

Good posture is a state of musculoskeletal balance protecting the support structures of the body against injury and progressive deformity. Simply put, this means being able to hold your body straight, without pain, with your hips, torso and head in alignment. We have a sitting posture, a standing posture and walking posture.

## Posture and performance

Many people just don't think of the ramifications of not looking after their posture. Poor posture and progressive deformity creates musculoskeletal problems that can result in a decline in

#### **POSTURE IS IMPORTANT FOR:**

- Minimising stress and strain on joints and connective tissue.
- Encouraging optimal breathing patterns.
- Enhancing confidence and self-esteem.
- Shock absorption and transfer of loads during movement.
- Enhancing wellbeing (supporting mental clarity and easing anxiety by encouraging you to remain in the present moment).

productivity, impeded blood circulation, shallow breathing due to a constricted diaphragm and chronic muscle tension.

Posture is a reflection of our current state and is linked to more efficient movement. Mer-

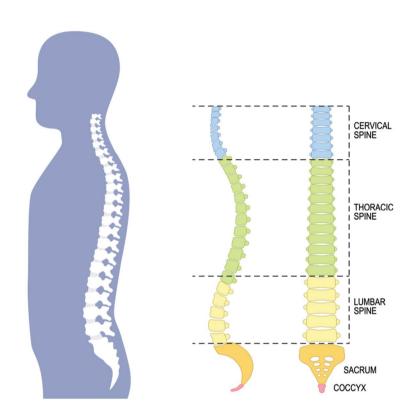
ryn Aldridge, former physiotherapist for the Australian athletics team, and Olympic gold medallist Sally Pearson explain, 'Posture changes not only lead to better breathing patterns, less stress and improved mental health, they can dramatically improve performance. Posture is for everyone to improve, not just elite athletes.'

## Posture and your brain

Posture is more than just how you hold your body. Poor posture leads to a range of psychosocial problems including emotional strain and low comfort perception. Spending a few minutes each day focused on postural cues combined with breathing exercises before an interview has been shown to increase interview success. This has come to be known as the 'power pose'. Good posture can even alter body chemistry and elevate testosterone levels.

#### Assessing your posture

It is something of a myth that people possess 'normal or perfect posture'. Posture is influenced by gravity, centre of mass, base of support, internal and external forces, fatigue and mood.



Combining the right strength and stretching exercises can have a dramatic impact on posture and energy levels.

#### 5. BALANCE

Balance is the ability to remain steady, stable, and upright when standing or moving. It involves complex coordination between multiple sensory inputs (visual, vestibular and somatosensory) and generating precise, accurate responses to these stimuli. This creates a 'sixth sense', known as kinaesthesia, or proprioception.

Good balance is imperative for people of all ages, as poor balance is a major indicator of injuries and falls. Incorporating balance exercises like standing on one leg while throwing and catching a ball assists prevention of ACL or ankle ligament tears in soccer, netball and volleyball. Everyone who participates in local sporting comps (touch, netball, soccer, etc) or activities like snow skiing and water

#### **BALANCE IS IMPORTANT FOR:**

- Preventing falls as we age.
- Improving athletic performance enhancing running efficiency, increased power with kicking sports.
- Reducing risk of costly injuries like anterior cruciate ligament ruptures that occur in ball and court sports, or when people go water or snow skiing.
- Enhancing wellbeing (supporting mental clarity and easing anxiety by encouraging the individual to remain in the present moment).

skiing should incorporate balance training. An ACL injury costs time and money with a 12-month rehab program, time off work, out-of-pocket treatment expenses, and impact on mental health and confidence. An injury like this can cascade a se-

ries of events that lead to poor fitness habits, weight gain and sedentary lifestyles. Including a few minutes of balance training each week reduces risk of injury and improves coordination and special perception so you can enjoy the really fun stuff – fitness play.



#### **FITNESS PLAY**

Outdoor environments beg to be discovered. If you hate going to the gym, explore a valley, bush track or a mountain range. Grab a surfboard or kayak and hit the wet stuff. Nature has a great way of 'disguising' fitness and making physical activity fun.

Before writing this chapter, I was out on the ocean catching waves on my surf ski. Whenever I do this, I have to put an alarm on my watch as I've been known to disappear for hours. Slicing

through the blue water, feeling the adrenaline kick in as I pick up the stroke rate and launch myself onto a wave, and the exhilaration when I get everything right and catch the perfect wave in the perfect spot. Bliss. Flow. Full engagement.

The most important thing is to do what you enjoy. If you don't like gyms – don't go to one! Ride a bike, kick a footy, play golf, swim, play social netball, dance, chase the bouncing ball, walk in the local park. There are going to be days when you don't

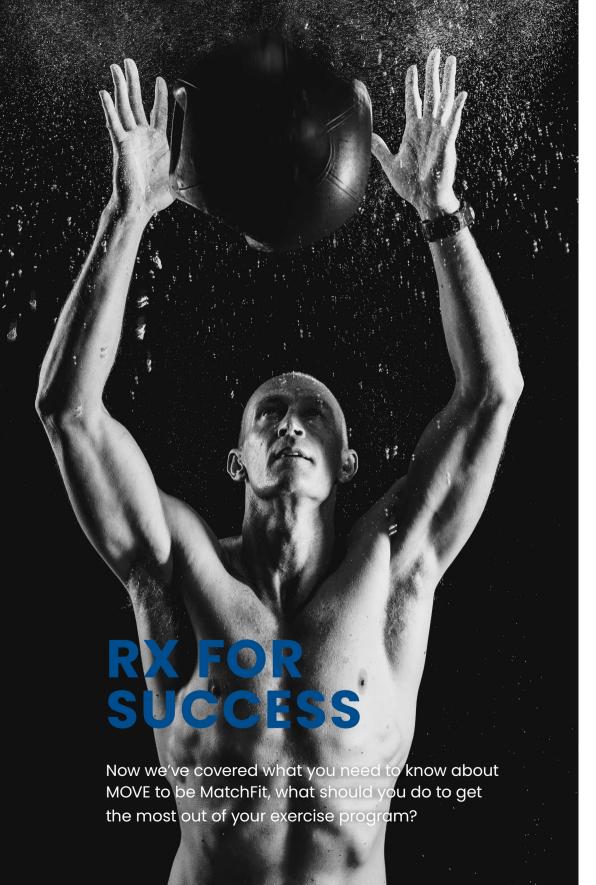
#### **FITNESS FLOW**

Not thinking about fitness is the best way to do it. It's called 'flow state' and refers to the feeling of complete immersion in an activity.

Two factors that define a flow state are engagement and enjoyment. Even for elite athletes, having fun is important for performance and achieving their physical peak.<sup>39</sup>

Researchers have proved that when we're having fun and enjoying ourselves it's unlikely we're even thinking about what we're doing as being exercise, and we're much more likely to stick with it long-term. That's a fast track to staying MatchFit throughout our lives, so forget about the treadmill (unless you really enjoy it) and get involved in fun, playful fitness activities that bring you bliss.<sup>40</sup>

feel like getting out of bed and strapping on the shoes. However, applying a bit of 'mind over mattress' and having the discipline to make a start will get you headed towards increased vitality and performance.



#### 1. FITNESS STORY

Spend time crafting your new Fitness Story aligned to all of the improvements engaging in an active, healthy lifestyle are going to bring to your life. After reading MOVE, hopefully this has already started to transform.

## 2. MOVE, MOVE, MOVE

If you don't do much exercise, it's not a good idea to dive straight into a rigorous routine – you're likely to blow yourself up and sustain an injury. Aim to get up and move for five to 10 minutes every 1.5 to 2 hours to keep your body pulsing and create a cascade of chemical and physiological reactions.

The goal is to build up to 10,000 steps every day. If you are currently a long way from that, aim first for 5000 steps, then build to 8000 and then 10,000.

#### 3. FITNESS PLAY

Play is so important to our physical and psychological wellbeing it's a MatchFit lever in its own right. Take time every week to go to the park, the beach, the pool, dance, chase and play with your children. Think of a sport you enjoy watching – perhaps tennis, golf or swimming – and find a local club you can join so you can do it with others who are passionate about it. The most important thing is to explore and find an activity you find fun and keeps you coming back for more.

#### 4. POSTURE AND MOBILITY EXERCISES

Body awareness is key to creating long-lasting changes in your posture. <sup>41</sup> Try these five simple cues regularly to reset to a more optimal posture. To make permanent changes, you might need to reset your posture 10 to 15 times per day.

### Part 1: Daily Reset

- 1. Lengthen the back of the neck/lift the base of the skull towards the ceiling
- 2. Broaden and lengthen the collar bones
- 3. Slightly tuck the pelvis to bring the hips on top of the ankles
- 4. Evenly distribute the weight in both feet with 50% in each leg
- 5. Keep relaxed and tall

## Part 2: Posture and Mobility Exercises

#### HAMSTRING BAND STRETCH



Use resistance band to pull up the leg, keeping knee straight. Raise until you feel a stretch in your hamstrings. Hold 15 seconds.



Keep breathing and releasing into the stretch, lower leg back down to the ground. Repeat x3 times both sides.

#### HIP FLEXOR STRETCH



Kneel down on a rolled towel and place one foot in front of you with bent knee.



Press hip forward and push pelvis down to the floor while pushing shoulders back in the other direction. Hold 30 secs. Repeat x3 times.

#### **STRETCHING TIPS**

- Focus on deep, relaxed breathing, in and out
- Square your alignment
- Fix position by tightening your core muscles
- Relax into your stretch and don't push too hard
- · Learn to enjoy regular stretching

#### A range of strength training videos are available on: andrewmay.com/ matchfitlibrary

#### **CHEST STRETCH**



Stand near a wall or doorway.
Place the palm of the hand flat against the wall and rotate your hips away from the wall, opening out your chest/pectoral muscle.

Hold 30 secs. Repeat x3 times.

#### SPINAL ROLL



Lie on your back and place a foam roller or rolled-up towel. horizontally across the shoulder blades. Lift hips from the



Cross arms across your chest and roll up and down to massage the spinal muscles. Hold for 15 to 30 seconds, repeat x 3 times.

#### **DOWNWARD DOG**



Start in child's pose.



Inhale and move onto hands and knees.



Exhale then straighten knees and lift your backside towards the sky. Press palms and fingers into the floor. Relax the spine and let your head feel heavy.



Hold for a two to three breaths. Repeat x 3 to 5 times.

#### FOOL YOUR BRAIN WITH MULTI-TASKING FITNESS

I like tricking my brain – and the brains of many clients – into 'multi-tasking fitness' combining a mindful activity (like learning or listening to a podcast) with a mindless, repetitive activity (like exercise). From a productivity perspective, multi-tasking is one of the worst things you can do, as it fragments attention and decreases decision-making capacity. But using multi-tasking to help switch off thoughts like 'I'm too busy/tired/injured/old' or 'it's too hot/cold/hilly/late/dark' while you get fit is a masterstroke.

1. Learn and burn: Choose a podcast that suits the length of time you are aiming to exercise, so you are inspired to listen and keep going to the end. A recent study highlighted performing a simple cognitive task while on a stationary bike resulted in faster cycling speed.

- 2. Walk 'n' talk: Rather than sitting all day in meetings, aim for three walk 'n' talk meetings each week.
- 3. Use your daily commute: Swap sitting in traffic for a commute that involves moving like walking to work or jumping on your bike. I know people in Sydney who paddle a surf ski on the harbour to work. What a great way to start the day.
- 4. Play with your kids: One of the best things you can do for your children is to help them have a positive relationship with physical activity, so devote time every week to spend quality, active time with them.

#### **5. GET BALANCED**

Incorporate balance training in your yoga/stretching practice or at the end of resistance training sessions, for example:

- Walk in a variety of ways: Forwards, backwards, throwing a ball, with high knees, getting as low as you can, slowly, and with the feet touching. Regularly walk with bare feet on grass or on sand.
- Single leg squats (without weight as this makes it easier to balance): Spend time on a variety of unweighted single leg squat drills to improve balance and make your ankles more responsive.
- Single leg mobility drills: The ability to stay perfectly still
  on one leg is admirable, but it doesn't translate into being
  responsive. Responsiveness is what allows you to recover
  from falls, not rigidity.
- Practise falling. Falling becomes much less scary when you
  have strategies for dealing with the floor. Start with basic
  rolling moves like squat get-ups. Once you get comfortable
  and gain the mobility needed to roll forward and backward

softly, progress to backward rolls and forward rolls.

• Go to andrewmay.com/balance for more details.

#### 6. ADD RESISTANCE

Aim for at least two strength-based sessions each week and as a guide, incorporate the seven primal movements in most sessions.

- *Twist*: This is your ability to twist in your core, from your pelvis to your ribcage. Every step you take has rotation in the thoracic spine and twisting exercises keeps your core strong and mobile and helps tone up the abdominals.
- *Pull*: This is your upper body muscles pulling weight toward you. Pulling trains your upper back, biceps, and grip and helps correct forward shoulders from spending too much time slumped in front of computers and smart phones.
- Push: This is your upper body muscles pushing things in various directions and trains your chest, shoulders, and triceps.
- Bend: Bending from the hips with back straight, feet flat and forward including body weight exercises and the deadlift. Bending strengthens glutes, hamstrings and lower back.
- *Lunge*: This is a long, linear stride, lowering your back knee to just above the ground, with an upright torso. Lunges train quads and hip flexors.
- *Squat*: Works every muscle in your legs and core and develops strength and mobility. Keep your back flat, abdominals tight and weight on your heels.
- *Gait* (walking, jogging, running): Walk, jog, run or sprint. Training the first six primal movements allows you to enjoy activities like running, team sports and fitness play exercises with less risk of injury. Research shows shorter interval runs and HIIT is more in sync with human biology and creates better results than running long distances.

## Kenyan circuit

When I was a middle-distance runner based in Hobart, every summer Kenyan runners travelled to Australia to train with us. One day we asked them about their strength training secrets. They did bodyweight squats (with another runner of similar weight hanging on their shoulders), chin-ups, push-ups, sit-ups and dips. That was it. Simple and effective. No equipment needed (apart from an outside bar, swing or tree branch for the chin-ups).

### Burpees (instead of squats)



In a crouched position, put body weight onto palms and push legs behind you into a push up position.



Put body weight onto palms and push legs behind you into a push up position. Brace abdominals and retract shoulder blades.



Push feet into the ground and power though legs so you jump up off the ground. Repeat.

## Wide Grip Chin Up



Start with arms extended and knees bent.

Pull up until your chin is level with the bar. Lower down and repeat. Keep your shoulder blades retracted.

#### **Push Ups**



Starting with arms extended, body weight distributed on palms of hands and toes, abdominals braced and head in a relaxed forward position.



Bend elbows and lower the body until your chest touches the ground. Keep tension in the arms and push up to starting position. Repeat.

#### Zombie Sit Ups



Start in a sit up position with knees at 90 degrees, head in a relaxed position and palms on your thighs.



Contract abdominals and lift until palms slide past the knee joint. Hold two seconds and slide back down.

#### **Tricep Dips**



Start with legs extended, body weight distributed between heels and arms placed on a bench (a park seat works fine).



Bend elbows and lower body until your backside touches, or is hovering just above, the ground. Repeat.



andrewmay.com/matchfitlibrary

#### 7. ADD SEASONING

Athletes and sporting teams follow a scientific process called 'periodisation' to ensure they peak at optimal times throughout the year. Periodising simply means dividing the year into segments, like the seasons, where your training load varies between light and heavy. Here's how I stay engaged with my training throughout the year.

- Autumn: Hot yoga and running. As the days of summer dwindle, it's nice to give my body a break from all the high-intensity summer training. Autumn provides an opportunity to evaluate what I've done and set or reconfirm some goals for the winter months. I do more hot yoga classes and enjoy some 'easy' cycles, swims and runs (where it's not all about smashing yourself). Hot yoga is great for improving flexibility and adding core strength, essential for good posture and biomechanics for all forms of cardio, especially running.
- Winter: Snow sports and strength training. Each year I take my children on a skiing trip. They love it, and we all look forward to our time away together. While kids have youth on their side, 'big kids' need to prepare our bodies by upping the balance and mobility training. I spend four to six weeks increasing lower-body strength, power and agility, including lateral lunges, single leg squats and box jumps. If snow is not your thing, winter can be a great time to make strength gains in the gym to boost metabolism and prevent excess winter kilos.
- Spring: Cycling or sport. My cycling intensity and focus picks up each spring as I start preparing for the CAN4Cancer ride. Spring is a great time for outdoor activities like Cross Fit or sport. Exercising with others boosts motivation and accountability. Grab a friend and get training.
- Summer: Swim, surf ski, surf. Summer is all about water sports. In recent years I've added swimming and surfing. In summer I jump on my surf ski more, and when holidaying at Mum and Dad's on the Gold Coast every Christmas I do

Stand Up Paddling a few times a week with the kids. And in early December we have the StriveStronger 5LTTWC, the highlight of our cycling year.

There are some activities that are essential for building a fitness base so you should keep working at them all year – for me that is cycling for cardiovascular fitness, weight training for strength and yoga for flexibility. I then have a solid fitness base which minimises risk of injury when I mix things up with fitness play/ new activities.

#### 8. LOCK IN A FITNESS CHALLENGE

Everybody – even elite athletes and highly disciplined people – struggle at times to stay motivated. Locking in a Fitness Activity Goal adds variety and purpose to your training program. You'll be more disciplined and focused when you have a goal to train towards and the exhilaration and achievement you'll feel by accomplishing a fitness goal is rewarding. Try the following to invigorate your fitness plan:

- Enter a fun run or a half-marathon.
- Train for a cycle race or an ocean swim.
- Book a trip to walk an iconic trail like Milford Sound, Cradle Mountain or the Kokoda Trail.
- Get some friends together for a charity walk or fundraising event.

## 9. MAKE YOURSELF ACCOUNTABLE

While this is point 9, after Fitness Story this is probably the most important step to keep you on track.

## Step 1: Lock fitness sessions in your diary

If planned sessions aren't in your diary your brain will find some amazing reasons to not train. We come back to this step in Chapter 14 Better Week.

## Step 2: Train with friends, a group or book a PT

There is nothing that keeps you motivated like a colleague or friend knocking on your door first thing in the morning. Organise regular fitness sessions with others to keep yourself on track.

## Step 3: Add an exercise physiologist or a PT

If you are really serious, add a qualified fitness professional to your personal board and every year undertake a health and fitness assessment (including blood pathology). I studied exercise physiology, I teach and write about exercise, and every Monday morning I meet Dan at Fitness First at 5.30 am and he punishes me for 45 minutes.

#### **10. PUTTING IT ALL TOGETHER**

Now you understand the three types of movement – incidental, planned and fitness play and have learned about the exercises and mental tricks to sustain fitness throughout the year – let's look at structuring a well-balanced fitness regime following the 3+2+1+ formula:

Fitness 5 Component	Sessions per week	Time per session	Total time per week
Cardiovascular	3	30 to 45 mins	90 mins
Balance	3	3 mins	9 mins
Resistance	2 to 3	20 to 40 mins	40 to 90 mins
Flexibility	1 big hit, or5 little hits	45 to 60 mins 5 to 10 mins	60 mins
Posture	Daily Awareness Cues	2 mins per day	10 mins
		= 3 to 4 hours per week	

You can combine Fitness 5 components, for example, 30 minutes of cardio mixed with resistance training and a stretch to finish. Depending on your specific goals and body type, I recommend you meet with an exercise physiologist or a qualified PT to tailor the

Fitness 5 model to your needs. Someone wanting to lose weight will spend more time on resistance training and high-intensity cardiovascular activity, while someone recovering from a back injury will focus on strength and flexibility.

#### **MATCHFIT MOVE**

To finish I want to provide you with a succinct and sticky summary of what an ideal exercise week looks like. I really like Mark Sisson's Primal Blueprint approach, which gets people moving like we use to *and* how we need to. I have built upon this and incorporated incidental movement and Fitness 5 to come up with my own approach, mapping out a weekly plan for movement and physical activity.

- 1. **Move lots.** Walk at least 10,000 steps every day and include relaxed cycling, swimming and other steady-state cardio activities. Once a week walk barefoot on grass or sand.
- 2. **Bend your bits.** Incorporate five to 10 minutes of stretching most days. Or substitute one yoga or pilates class each week. Every day reset your postural cues.
- 3. **Lift heavy stuff.** Two to three times a week do resistance training and add key primal movements like dead lifts, squats, bench press, chin-ups, lunges and twists. Add balance exercises too.
- 4. **High-intensity bursts**. Two to three times a week include HIIT. Ideally do this mixed into a cardio or resistance training session including short, sharp sprints.
- 5. **Add variety and play.** Engage in regular fitness play and have fun. Add 'seasonal fitness' adapting activities throughout the year. Make fitness social and fun.

#### Just 2% for results!

There are 168 hours in a week. Investing three to four hours towards your fitness represents only 2%. What are you waiting for? The results you get from investing that 2% far outweigh the time and effort you put in.



A lot of the content in this chapter I've learned from nutrition ist Teresa Boyce (you read about her in Chapter 1). It's based on the latest nutrition science *and* on what I've seen work with clients. Some recommendations are controversial – but let's face it, many current dietary guidelines just aren't working, as the global obesity epidemic shows. What was okay decades ago, when most nutrition guidelines were developed, does not work in our more sedentary, junked-up, stressed-out society.

## THE CHALLENGE OF INTERPRETING NUTRITIONAL RESEARCH

So often today we hear about new discoveries in medicine and nutrition. We're especially fascinated by nutritional products that appear to confirm our personal beliefs - what scientists call conformation bias. If a headline shouts 'Four cups of coffee a day prevents Alzheimer's disease', our response is: 'Great! I'll have eight then.' If only it were this simple. A recent editorial in the Stanford Prevention Research Center noted a 2017 meta-analysis which reported almost all foods revealed statistically significant associations with mortality risk.1 The problem is that non-expert media sources often present associations as causal: such as eating two slices of bacon daily will shorten your life by 10 years. But is this really plausible?

First off: believe me when I tell you that much of what you have been taught about nutrition is probably incorrect. You need to unlearn the 'food pyramid' and wipe what you've been taught about macronutrients, sugar, fat, carbs, supplements and a whole bunch of other stuff.

This chapter has two parts. The first explains what you need to know about nutrition.

#### **DIETS SUCK**

Whenever I make a presentation on FUEL, I ask the participants what diets they have been on. Over the years I've heard them all, including:

- The Purple Diet (eating only purple fruit)
- The Grapefruit Diet
- The Cabbage Soup Diet
- The Lemon Detox Diet
- The Drinking Man's Diet (bacon and eggs for breakfast, dry wine at lunch)
- The Israeli Army Eight-day Diet (apples and coffee on days one and two, cheese and coffee on days three and four, and so on)

- The South Beach Diet (low-carb derived, three-step program)
- The Last Chance Diet (very low-calorie protein drinks only)
- The Egg and Wine Diet (you got it eggs and wine)

We live in an age where everything we want is at our fingertips, and we expect instant gratification. When it comes to weight loss, though, the plain fact is there are no quick fixes, no magic pills and no magic diets. Getting rid of your excess weight takes consistency, perseverance and some old-fashioned hard work.

Gimmick diets promise the world, and while you might drop a fewkilosinitially-mostlyglycogen and water-you will eventually regain that weight, and possibly more as you overcompensate for the poor nutrition of whatever it is you're eating.

Perhaps you're now thinking, 'What about paleo? Or vegetarian?' All I can say is that there's a big difference between a nutrition-based approach to eating, like either of those, and a gimmick diet such as only eating cabbage soup or lemons. And we need to bear in mind that there is no 'one size fits all' approach to nutrition, just like there is 'no one size fits all' ideal exercise regime. With nutrition, you need to get the basics right – and that means cutting back on sugar, alcohol and processed foods, and sticking to the 'Performance Plate' (more about this later in the chapter) – and then choosing an approach that suits your values, beliefs, body shape, specific training goals, corporate travel and personal taste.

# If you want your body to be good to you, you need to be good to your body.

-Teresa Boyce, nutritionist

The first thing you need to understand about the food you put into your body is you shouldn't be focusing on calorie restriction. Rather, you need to provide your body with the nourishment it needs to function optimally.

If your goal is weight loss, you must remember these seven golden rules:

- 1. Portion control is key.
- 2. Consume a balance of plants, protein and good fats.
- 3. Cut out sugar for insulin control.
- 4. Minimise unnecessary snacking and grazing.
- 5. Plan, prep and pack as many meals as you can.
- 6. Move, move, move.
- 7. Get adequate quality sleep this is where the magic happens.

With those in mind, let's look at what you need to know about nutrition and peak performance.

#### **FAT IS BACK!**

For years we were told that dietary fat was bad, and consuming saturated fats found in foods such as milk, cheese, lard and meat caused heart disease. This idea originated in the 1950s, when the American Heart Association recommended that people adopt a low-fat diet, but it was in the 1970s that the low-fat era boomed. Not only was a low-fat diet recommended as protective against heart disease, it was promoted as the most healthy and effective way to lose weight. Eating fat makes you fat – made sense, right?

Food companies took the saturated fats out of foods and replaced them with sugar and poor-quality refined vegetable oils – and that's where the real problems started. Marketing departments came up with a whole bunch of new products that were '99% fat free' – breakfast cereals, biscuits, flavoured yoghurt, snack bars, sauces – and presented them as 'healthy options'.

And what happened? The low-fat era did nothing to reduce rates of heart disease and obesity. In fact, we got sicker and fatter as a result of these misguided recommendations.

Fast-forward to today. We now know that fat *does not* make you fat – and we also know that sugar, refined white carbs (white bread, biscuits, muffins) and poor-quality vegetable oils are way more detrimental to your waistline and heart health. Sugar produces insulin (a fat-storage hormone), increases triglycerides (blood

fats) and stuffs up our hunger regulation. Poor-quality vegetable oils promote inflammation within the body (inflammation is the root of chronic disease). The time has come to clear your kitchen of low-fat rubbish and put fat back into your life. As Teresa Boyce says, 'Fat is back, baby!'

## Why we need fat

Dietary fat tastes delicious, but it's also vital for good health. Every day we need to eat good-quality fats because:

- Fat provides a source of energy.
- All cell membranes within our body are made from fats
- Dietary fats are required to absorb certain vitamins, such as vitamins A, D, E and K.
- Fats stabilise blood sugar levels to help keep you feeling full.
- Our hormones are made from fats.
- Our nervous system and brain need fats to function.
- · Fats are required for healthy skin.

Like all foods, dietary fats should be consumed in moderation. They should also come from unrefined natural sources. Sorry – eating a stick of butter and a freshly baked croissant every morning is still a no-go. The types of fats we recommend include:

Omega 3 essential fatty acids	<ul><li>Oily fish (salmon, trout, tuna and mackerel, etc)</li><li>Flaxseeds, walnuts and chia seeds</li><li>Soybeans</li></ul>
Omega 6 essential fatty acids	<ul> <li>Avocado</li> <li>Olives and cold-pressed olive oil</li> <li>Almonds, cashew nuts, Brazil nuts</li> <li>Pumpkin seeds, sesame seeds</li> <li>Poultry</li> <li>Eggs</li> </ul>
Saturated fats	<ul> <li>Organic full-fat dairy (milk, butter, cheese)</li> <li>Organic meat</li> <li>Coconut oil</li> <li>Ghee</li> </ul>

#### How much fat do we need?

The goal is to consume a small serve of healthy fats as part of every meal, ensuring that you consume a variety of omega 3, omega 6 and unrefined saturated fats. Remember, moderation, portion control and balance are vital. Here are a few meal examples of balanced fat intake:

#### Breakfast

- Fresh fruit salad with natural full-fat yoghurt, topped with chia and pumpkin seeds.
- Dark rye toast with avocado, poached eggs, spinach and tomatoes.
- Breakfast smoothie with full-fat yoghurt, full-fat milk (or almond milk), protein powder and frozen banana.

#### Morning Tea

- Fresh berries with a handful of walnuts.
- Cherry tomatoes, feta cheese and olives.
- Apple slices and a heaped tablespoon of peanut butter.

#### Lunch

- Quinoa and grilled chicken salad with cold pressed olive oil dressing.
- Turkey breast and mixed salad wholemeal wrap with avocado.
- Sashimi with seaweed, shredded cabbage and avocado salad.

#### **DIETARY FAT AND CARDIOVASCULAR DISEASE**

A 2015 meta-analysis evaluated observational studies related to the intake of saturated and trans unsaturated fatty acids and the risk of all-cause mortality, cardiovascular disease and Type 2 diabetes.<sup>2</sup> Overall, saturated fat intake was not significantly associated with all-cause mortality, heart disease, ischemic stroke or Type 2 diabetes. However, industrial, trans fats were associated with increased coronary heart disease mortality, although trans fats from ruminant (i.e. plant-eating mammal sources) were not. These findings were consistent with a 2010 review that also concluded there is no significant evidence that dietary saturated fat is associated with an increased risk of heart disease.<sup>3</sup>

#### Dinner

- Pan-fried salmon with steamed broccoli, asparagus and green beans topped with pine nuts.
- Beef and vegetable stirfry cooked with olive oil.
- Chicken and pumpkin coconut milk curry, served on cauliflower or brown rice.

# SUGAR IS MAKING YOU FAT, TIRED, OLD AND DUMB

If that heading didn't grab your attention, not much will. It's scary but it's true. Excessive sugar does make people overweight. It also makes us prone to fatigue. It prematurely ages us. And it affects our ability to concentrate and focus.

We know that added sugar is everywhere. Hundreds of books and movies have been released focusing on sugar's negative effects on our waistlines and our general health. And even fitness and health professionals like me aren't immune – I told you back in Chapter 1 how I needed to break up with the white powdery stuff.

Let's look at how this all came about.

## The history of low-fat, high-sugar eating

Ancel Keys was an American physiologist who became convinced that high LDL cholesterol levels, due to consumption of the saturated fats found in animal foods, were the root cause of heart disease.<sup>4</sup> Back in the 1950s he produced a famous study linking saturated fat intake with heart disease; we now know that study was fundamentally flawed. From there, however, the low-fat, high-sugar era took off.

The World Health Organization (WHO) and American Heart Association now recommend we consume no more than six teaspoons of added sugar a day.<sup>5</sup> The latest statistics show that some Australians, especially teenagers, consume up to 38 teaspoons of sugar a day.<sup>6</sup> Think of grabbing a large bowl and tipping 38 teaspoons of sugar into it, adding some water and

giving it a stir, then consuming it throughout the day. And doing that every day. Not a very nice image, huh?

Most of the sugar we consume comes from soft drinks and other nutrient-poor discretionary foods and beverages. Back in the 1700s, people consumed very little sugar – approximately one teaspoon a day – and it came from natural sources like fruit and honey. This is how we should be consuming sugar: in small amounts and as nature intended.

# Sugar makes you fat

All calories are not created equal. The issue with sugar is not just the extra calories it brings, it's the impact it has on our weightgain hormones. Sugar drives up insulin, which is the hormone that makes both our muscles and our fat cells grow. So every time you bite into that cake or chocolate bar, don't count the calories – instead, imagine you are injecting yourself with a fat-storage hormone. If you want your body to burn fat, you need to avoid all refined sugars and white carbs. That will keep your insulin levels low, enabling your body to use fats for energy rather than carbs.

# Sugar makes you tired

While sugary foods give you an instant energy hit, what comes up must come down! After we consume sugar, our brain registers high blood glucose and instructs the hormone insulin to pull sugar quickly from our bloodstream, resulting in a blood sugar crash. This rollercoaster of blood sugar highs and lows does not lead to stable energy and concentration throughout the day. If you want sustained energy, you need to eat foods that stabilise your blood glucose levels. These include:

- Fruit with a handful of raw nuts.
- · Cheese and seed-based crackers.
- Raw vegetables and hummus dip.
- · Natural yoghurt with berries.
- · Boiled eggs.

## Sugar makes you age

Ageing is defined as 'the progressive accumulation of damage over time, leading to disturbed function on the cellular, tissue and organ level and eventually to disease and death'. If you're worried about premature ageing, forget about the fancy innovations like stem cell therapy. The first step towards tapping the fountain of youth is cutting back on sugar.

Once consumed, sugar molecules bind to proteins or fats within the body, creating what we call Advanced Glycation End products – or AGEs. Ironic, right? These Advanced Glycation End products accelerate oxidative damage and cell ageing, and factor in the development or worsening of many degenerative diseases like diabetes, atherosclerosis, chronic kidney disease and Alzheimer's disease. It's interesting to note that people living in the Blue Zones around the world don't go to their local supermarket to buy kilogram bags of sugar...

# Sugar makes you dumb

Not only will a high-sugar diet negatively impact your physical energy, it impacts your cognitive processing capacity – your brain. A blood sugar crash can result in symptoms including irritability, mood swings, depression, mental fatigue and brain fog. Low blood glucose can also exacerbate anxiety-like symptoms, making it difficult to concentrate.

Sugar is addictive and, once consumed, lights up the reward centre in the brain, releasing dopamine, the 'feel-good hormone'. While the occasional treat of chocolate is relatively harmless, chronic exposure to high-sugar foods causes major issues. A high sugar intake of 10 teaspoons or more – which is above the WHO's limit of six teaspoons of added sugar per day – hijacks the brain's reward pathway, resulting in intense sugar cravings and loss of control. Constantly thinking about your next hit of sugar impacts your concentration and mood.

What does all this add up to? It's pretty simple. Cut out sugar to improve your weight, energy levels, bioage and concentration. Cutting out sugar is essential to be MatchFit.

#### **NOT ALL CARBS ARE EVIL**

If you get caught up in some fad diets, you could be persuaded that carbs will be the end of you. But I'm here to set the story straight. Not all carbs are bad. In their natural form, fruits and vegetables are carbohydrates. Let's understand the difference between good carbs (Teresa and I call them 'performance carbs') and the bad carbs (also known as 'white death').

# What are carbohydrates?

The foods we eat fall under three main groups: carbohydrates, proteins and fats. Once consumed, carbohydrates are broken down into glucose, which fuels our body, brain and nervous system.

Carbohydrates are classified as:

- Simple carbohydrates (sugars)
- Complex carbohydrates (starches)
- Fibre (non-absorbable carbohydrate)

The body breaks down simple carbohydrates quickly, and these can be found naturally in foods like fruits, milk and milk products. The nasty simple carbohydrates you want to avoid are the refined carbs found in table sugar, soft drinks and lollies.

Complex carbohydrates are often referred to as starchy carbs. Their structure is more complex than that of simple carbohydrates; imagine a long coil or chain of carbohydrate molecules linked together. Unrefined complex carbohydrates are rich in fibre, vitamins and minerals. Examples of complex carbs are wholegrain oats, brown rice, legumes, sweet potato, peas and corn.

Fibre is the structural part of plants found in vegetables, fruit, legumes, nuts, seeds and grains. Fibre cannot be broken down to obtain energy; instead, it passes through our gastrointestinal system undigested. The Heart Foundation recommends that adults should aim to consume approximately 25–30 grams of fibre each day. Dietary fibres are either soluble or insoluble – both types are important for digestive function, stabilising blood glucose and cholesterol levels, and improving bowel health.

## Avoid 'white death' products

Over the years, white sugar and refined white-flour food products – such as white bread, muffins, cakes and biscuits – have flooded our supermarket shelves and become staples in household pantries. These processed foods are detrimental to our health; refined carbohydrates and sugar play havoc with your energy levels, cholesterol levels, blood glucose and insulin levels, mood and concentration. White death carbohydrates are associated with the production AGEs. AGEs are proteins or fats that become glycated after exposure to sugars. As we saw in the last section, AGEs negatively impact our cells, tissues and organs, and accelerate the ageing process. Recent epidemiological studies showed that elevated circulating AGEs are associated with an increased risk of developing many chronic diseases, including atherosclerosis.

#### Performance carbs

Carbohydrates are not the enemy—it's the type, timing and amount consumed that is the issue. Highly processed carbohydrates wreak havoc on blood glucose and insulin levels, resulting in the 'rollercoaster effect' of energy peaks and troughs throughout the day, which can negatively impact mood and concentration. High blood glucose and insulin levels can also lead to an expanding waistline, insulin resistance and metabolic syndrome.

Remember, insulin is a growth hormone: it facilitates muscle cell growth and helps restock glycogen cells, but it also promotes our fat cells to grow. So if you're trying to decrease your body fat or stay lean, you should aim to control your insulin levels.

Performance carbs are quality carbohydrates that provide the body with a steady stream of glucose for stable energy. They also contain fibre for gut health, plus B vitamins and magnesium, which are vital for energy production.

So what should you eat? Think foods in their most natural state and you can't go too wrong. I was recently telling my children that we should eat as many tasty foods as possible that are close to their natural state – from the ocean, the sky, the ground or from a farm. My son Archie looked at me inquisitively and asked,

'Dad, what does a Cheezel tree look like?' Anyway, here are some top-rating performance carbs:

- Starchy vegetables, including sweet potato, parsnips, pumpkin and beetroot.
- Wild or brown rice.
- Quinoa.
- Heavy-seeded sprouted dark rye bread.
- Steel-cut or rolled oats.
- Legumes.
- No Cheezel trees!

## Earn your carbs

Rather than focusing on a 'no-carb diet', think about the concept of earning your carbs. The first step is to clean up your pantry and replace the crappy carbs with performance carbs. Now it's time to learn how to earn them.

The basic idea is that it's good to consume performance carbs after exercise. During exercise, your glycogen (carbohydrate) stores are depleted, and your body becomes primed to utilise carbs after training. Studies show glucose uptake within our cells is elevated for up to two hours after exercise; a single bout of exercise can increase insulin sensitivity for 16 hours post-training. What does this mean? Exercise helps the body to use carbohydrates and insulin more efficiently. Post-training carbohydrates are used to refuel muscle and liver glycogen stores rather than fat stores. Post-training carbs also help repair muscles, because our muscle tissue is most sensitive to carbs after exercise.

# What does a post-training meal look like?

For athletes, the Australian Institute of Sport recommends consuming 1 to 1.2 grams of carbohydrates (CHO) per kilogram of bodyweight post-training, and a total carb intake of 3 to 7 grams per kilogram of bodyweight each day. But this is way too much for the average person, especially if you're carrying excess weight.

As a basic guide, you should look at consuming carbs and protein at a ratio of around 3:1 after cardio-based training. Again,

this will vary depending on your fitness goals, gender and type of exercise. A 70-kilogram person, following a 45- to 60-minute cardio training session, should aim to consume around 60 grams of carbs and a minimum of 20 grams of protein. Plan to have your post-training meal within 45 minutes of finishing, as this is when your body is primed and ready to use the carbs and protein for repair and recovery.

#### Post-training meal examples

200 grams natural yoghurt + ½ cup rolled/steel-cut oats + 1 grated apple + ½ cup almond milk + 1 tablespoon of mixed seeds.

Smoothie: 30 grams quality protein powder + 200 ml milk of your choice + 1 banana + ½ cup berries + 1 tablespoon LSA (a ground mix of linseed, sunflower seeds and almonds).

Scrambled eggs + 2 slices dark sprouted rye toast + ¼ avocado + sautéed spinach + small celery, cucumber, carrot, beetroot and ginger juice.

#### Your stomach has a brain

What the . . .? The area of gut health is currently one of the hottest topics in the world of health and nutrition. The 'gut microbiome' refers to the trillions of microbes that reside in our gut. Natural heathcare practitioners (like Teresa) have been banging on about the importance of gut health for years, with the belief that 'all disease starts in the gut'. It is only recently that science has caught up, finally recognising a connection between chronic disease and 'dysbiosis' – in other words, a microbe imbalance within the gut.

# What makes a healthy microbiome?

Microbiome science is still in its infancy: considering the thousands of microbial species in the gut, working out an ideal microbiome composition is extremely difficult. Yet there are some key factors to consider when thinking about gut health.

Even with advancing technology and testing, we still don't know what the perfect microbiome profile looks like. There is

no 'one size fits all' healthy microbiome profile. It is known that healthy individuals typically exhibit substantial levels of certain 'core' bacteria strains belonging to six genera:<sup>8</sup>

- Faecalibacterium
- Eubacterium
- Clostridum
- Blautia
- Ruminoccus
- Roseburia

Another key finding is that diversity is king within our microbiome. Imagine your gut microbiome is like a garden: you want to have a variety of shrubs, flowers, grasses, bushes and trees. A sparse garden that exhibits only a limited number of trees would be considered out of balance, or unhealthy.

## Nutrition and lifestyle improve microbiome

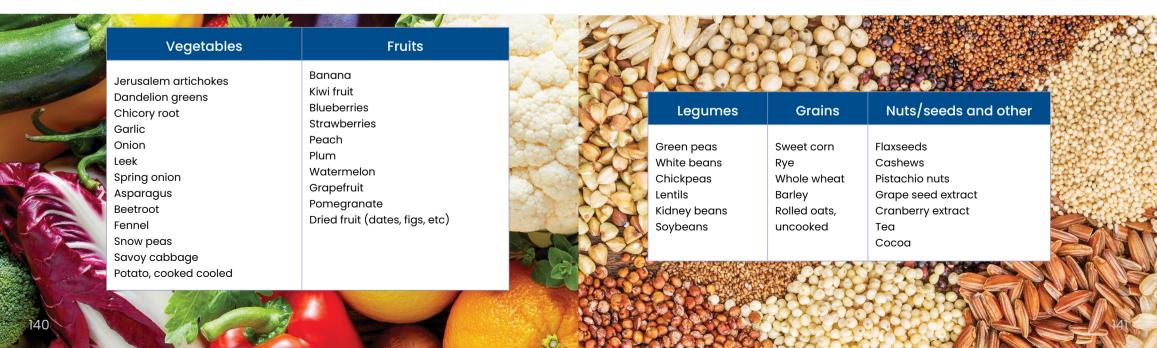
Within 24 hours of eating, the food or drink you consumed is impacting your gut microbiome. If you are looking to improve and enhance diversity within your microbiome, start by focusing on the following:

- · Regular exercise.
- · Good-quality sleep.
- · Stress management.
- Probiotic supplementation (probiotics act like fertiliser, allowing a variety of bacteria to flourish within the gut).
- · Prebiotic-rich foods.
- Mediterranean type diet rich in primal plant foods.

# Microbiome-boosting foods

*Probiotics* are live bacteria found in foods like sauerkraut, yoghurt, miso soup and kimchi. Probiotics can also come in supplement form, which has become a popular way of boosting probiotic intake.

*Prebiotics* are specific types of fibre that pass undigested through the gastrointestinal tract, and then stimulate the growth of 'good' bacteria within the large intestine. Here are some prebiotic, microbiome-enhancing foods:



# Microbiome for physical and mental health

The metabolism of microbiome-enhancing foods produces short chain fatty acids (SCFAs) within the gut. The SCFAs of most importance include butyrate, acetate and propionate, which play vital roles within the gut and overall health. Some important functions of SCFAs include:

- Providing a source of energy for the host tissue.
- Exerting anti-inflammatory effects.
- Influencing satiety.
- Improving gut transit time.
- Maintaining colonic pH and microbial balance.

*Dysbiosis* is a term for a microbial imbalance or impaired microbiome. There is increasing evidence linking dysbiosis to poor health and conditions such as:

- Obesity.
- Metabolic syndrome.
- · Type 2 diabetes.
- Atherosclerosis.
- · Colorectal cancer.
- Allergy and neurological disease.9

Emerging microbiome research is discovering the bidirectional communication between the gut and the brain, also known as the gut–brain axis. Even though the research is in its infancy, human clinical trials have shown promising use of probiotics to support mental health, enhanced stress resilience and cognition, as well as relieving anxiety and depression symptoms.<sup>11</sup>

#### **FUN GUT FACTS!**

- The human adult gastrointestinal tract (GIT) contains more than a kilogram of bacteria – making it essentially the same weight as the human brain.
- It is estimated that the gut is inhabited by 10 trillion microorganisms, which is significantly more than the number of human cells in the body.
- Studies have linked a reduction in bacterial diversity to chronic diseases such as obesity, IR, inflammation and bowel disease.

#### **RETURN TO PRIMAL**

Before we got all trendy with our nutrition choices, dinner used to be meat and three veg, with some mash on the side – so a mix of protein, plants and carbohydrates. It's funny how we've come back to that approach. In fact, with the primal way of eating, we've pretty much returned to where we were thousands of years ago.

Processed foods do not serve us well. They're addictive, unhealthy and nutritionally empty. Most foods in the supermarket aisles are really just products designed to please your tastebuds so that you'll come back for more. If your mission is to be lean, healthy and MatchFit, the first thing you need to do is get back to basic nutrition – in other words, return to primal.

# What are primal foods?

Put simply, primal foods are foods in their most natural state, foods that are as close to nature as possible. These types of foods include:

- Fresh seasonal fruit and vegetables.
- Fresh herbs and spices.
- Organic or grass-fed meats.
- Organic or free-range poultry and dairy.
- Fresh fish.
- · Nuts and seeds.
- · Cold-pressed, minimally refined oils.

These types of foods offer superior nutritional value, providing an array of protective phytonutrients, vitamins, minerals and fibre, plus the essential fatty acids and amino acids we need to function at our best. Vitamins and minerals are substances that are essential for normal metabolic function. Vitamins and minerals cannot usually be synthesised in the body, which is why we need to obtain them through the food we eat. Inadequate vitamin and mineral intake results in deficiency and disease. Basing your meals around primal foods will ensure that you're obtaining all the vitamins and minerals you need for optimal health and wellbeing.



# **KETOGENIC AND PRIMAL EATING**

**Ketogenic** diets have traditionally been used to enhance fat loss in overweight individuals, and they've become increasingly popular in recent years. *Ketosis* is defined as a metabolic state characterised by raised levels of ketone bodies (chemicals made in your liver) in the body tissues, which may be the consequence of a diet that is very low in carbohydrates.

Our body prefers to use glucose as a fuel source, however when dietary carbohydrates are restricted, the body will convert fats into ketones to fuel the brain and body. So ketosis is a normal metabolic process, something your body does when it doesn't have enough carbohydrates from food to fuel our cells – and assuming you are not overeating, your body will tap into your stores of body fat. Ketogenic eating has other benefits too:

- Appetite control.
- · Reduced insulin levels.
- Stable blood glucose.
- Mental clarity and stable mood.
- · Balanced energy.
- Positive impact on metabolic syndrome and Type 2 diabetes.

**Primal eating** (or paleo eating) is more of a wholefoods approach, in which you eliminate all processed foods and sugar. It's not necessarily low in carbohydrates – for example, you can eat sweet potato, starchy vegetables, whole grains, fruits and honey, whereas these foods are not ketogenic-friendly due to their carbohydrate content.

With a ketogenic diet, you aim to eat a ratio of 70% fat, 20% protein and 10% carbohydrates. Primal or paleo eating doesn't have any strict guidelines around ratios. Both approaches, however, can be beneficial for fat loss as they cut out all refined grains and processed sugar, focusing on whole foods.

The truth is you do not need to be crazy-restrictive to be in a state of ketosis. Simply eating low-starch vegetables, moderate protein and healthy fats and avoiding starchy carbohydrates will allow your body to shut down carb-burning and start burning fats efficiently for fuel.

An issue I often see with individuals who switch to full keto is that they think they can eat as much fat as they want. In fact, it's very easy to overeat fat, as it's such a rich source of calories and fuel. The best fat-loss results are seen with a primal, plant-rich version of ketosis.

# Moving from processed to primal foods

This isn't difficult. Once you start implementing these changes, you'll wonder why you didn't do it years ago.

Processed	Primal
White bread	Sprouted seeded bread
Salted crisps or savory biscuits	Baked sweet potato slices with sea salt
Flavoured yoghurt	Natural full-fat yoghurt
Dairy milk chocolate	90% cacao chocolate
Margarine	Grass-fed butter
Breakfast cereal	Vegetable omelet
Snack bar	Fresh fruit and raw nuts
White flour	Almond meal
Frozen pizza	Homemade pizza on cauliflower base
Meat pie	Mince and vegetables

There are many benefits for choosing primal foods over processed foods. It's logical that natural foods are going to be better for us, but here are the top reasons why you should go back to basics.

#### More fibre

Fruits, vegetables, nuts and seeds contain insoluble and soluble fibre, both of which are vital for digestive function and gut health. To ensure your gut has more good than bad bacteria, you need to feed the good bacteria with dietary fibre. Good health starts with an optimally functioning gut, with a diversity of good bacteria in the digestive system. Processed foods tend to be void of fibre, in an effort to extend shelf life.

#### Keep you full

Real foods are nutrient-dense, and packed with fibre and water, all of which keep you feeling satisfied between meals. Satiety helps with self-regulation around food intake, which is a must if you are trying to lose weight. A plate full of vegetables is nutrient-rich and calorie-poor, yet a handful of biscuits is calorie-dense and nutrient-poor – and designed to keep you coming back to the biscuit tin.

#### Nourishment and protection

With an array of vitamins, minerals and phytochemicals, a diet packed with seasonal plant foods will not only keep you functioning at your best daily, but can help protect you against heart disease, cancer, Alzheimer's disease, Type 2 diabetes, stroke, high blood pressure and high cholesterol.

#### Blood sugar regulation and balanced energy

Primal foods have a stabilising effect on blood glucose, vital for sustained energy throughout the day, focused concentration and mental clarity. Stable blood glucose also promotes a feeling of calmness and control – in other words, you don't get 'hangry' between meals.

# **Rewrite your Nutrition Story**

If you haven't already thought about and written down your Nutrition Story, do it now. Go back to Chapter 5 PLAN and read that section carefully. No matter what your Nutrition Story is right now (and if it's not good, that's totally okay – the first step in making lasting change is to acknowledge where you are), it is time to make friends with food.



#### 1: Cut back on sugar

There is nothing wrong with enjoying the occasional chocolate, glass of wine or coffee – the problem arises when you start to depend on these foods on a daily basis. First on the hit list is sugar.

We know the negative impact sugar has on our waistline and our general health. Sugar is addictive, throws blood sugar and energy levels all over the place, and can negatively affect concentration and mood. The World Health Organization (WHO) recommends we consume no more than six teaspoons of added sugar a day. If you have a sweet tooth (or what my son Archie calls 'sweet teeth') and struggle with sugar cravings, your first challenge is to reduce your sugar intake to less than 10 teaspoons of sugar a day.

Hint: If you are reading package food labels, six teaspoons is equivalent to 24 grams of sugar. Divide the total grams of sugar per serving by four and that will give you the amount in teaspoons.

#### 2: Cut back on alcohol

Making a few simple changes or swaps in the drinks you order can make a big difference to your overall sugar and alcohol intake.

- The 'beer wedge': A lot of men (myself included) get a bloated stomach when they drink too much beer. I love nothing more than an icy-cold, crisp beer on a hot summer day. But too much of the amber fluid definitely creates bloating and inflammation. Have a glass of water or sparkling water before your first beer and in between every other beer to increase your hydration levels and decrease the total amount of beers you drink.
- Choose red wine: It has nothing to do with the alcohol or sugar content, as red and white are much for much in this department, but red wine is healthier for you due to the pigment in the grapes. Red and black grapes both contain high levels of the cell protective antioxidant

- resveratrol. It's the resveratrol in red wine that gives it the tick of approval. Also, look for dry over sweet wine, as dry wine (red or white) is much lower in sugar.<sup>12</sup>
- Kombucha before dinner: A little trick I've discovered recently is having a cold Kombucha before dinner, as a substitute for the first beer. (Look, I know it's not a beer, but this is a good way to decrease the amount of alcohol you consume and still feel like you are drinking something cold with a taste...)
- No added sugar to cocktails: For your next espresso martini, ask the waiter (lean forward and whisper like I do, if you want no one else to hear) for no added sugar.
- Keep it clean: Cocktails can be killers for the waistline, so read the cocktail ingredients and opt for syrup-free, sugar-free, non-cream-based, low-fruit-juice options.
   Don't be afraid to tweak the ingredients to design a cleaner version; using soda water as a base and white spirits is a good start.
- Know what you're consuming: Look at how many shots are in the beverage. A Long Island Iced Tea, for example, contains five different spirits, topped with a splash of cola. White spirits may be low in calories but are still unhealthy when consumed in such volume.
- Alcohol-free days: Aim for at least two alcohol-free days each week to allow your body to recover and reset.

At times of high stress, alcohol can seem to make you feel relaxed, but regular drinking will do you harm. The Australian Government's Department of Health recommends the following:

- For healthy men and women, drinking fewer than two standard drinks on any day reduces your risk of harm from alcohol-related disease or injury over a lifetime.
- Aim for two or more alcohol-free days each week.

Here's what a standard drink looks like:

These are all equal to approximately		
Low-alcohol beer (3.5%)	1.6 middies, total volume 375 ml	
Regular beer (4.9%)	1 middy, 285 ml	
Table wine (12%)	1 small glass, 100 ml	
Alcoholic soda (5.5%)	3/4 of a 330 ml bottle	
Mixed drinks	1 glass, 30 ml of spirits (40%) plus mixer	
Spirits or liqueurs (40%)	1 nip, 30 ml	
Low-alcohol beer (3.5%)	1 can, 375 ml	
Note: two full strength middies of beer + one small glass of wine + one rum and coke = four standard drinks		

Excessive alcohol consumption over the longer term can contribute to anxiety and depression. Heavy drinking interferes with your brain's levels of serotonin, the feel-good neurotransmitter that helps regulate your mood.<sup>13</sup>

## 3: Cut back on caffeine

Caffeine is one of the world's most widely used substances, and is found in coffee, tea, cacao/chocolate and energy drinks. Caffeine is another dopamine-enhancing substance that promotes a feeling of alertness. Coffee contains cell-protective antioxidants, and some studies have linked moderate coffee consumption with positive effects on cognitive functioning. But like all things in life, moderation is important. When you ingest more than 300 milligrams a day (or around four cups of coffee), caffeine can cause anxiety, tension and disrupted sleep. Here's a guide to the amount of caffeine in typical products:

Source	How much caffeine	Comments
Instant coffee	60–100 mg per cup	The amount of caffeine depends on how much you put in the cup
Fresh coffee	80–350 mg per cup	The amount of caffeine depends on the type of beans (Robusta beans contain more caffeine than Arabica), the way the coffee is made and how strong the brew is
Decaffeinated coffee	2–4 mg per cup	The amount of caffeine is usually marked on the packet
Tea	8–9 mg per cup	Caffeine content depends on how strong the brew is and what type of tea. Green tea contains around 8 mg of caffeine, while black tea is more likely to hit the 40+ mg mark
Cola drinks	35 mg per 250 ml serve	Cola drinks often contain a lot of sugar too
Cocoa and hot chocolate	10-70 mg per cup	The amount of caffeine depends on strength of the brew
Chocolate bars	20–60 mg per 200 g bar	Chocolate also contains a lot of sugar
Some prescription and over- the-counter medications	20–100 mg per dose	Some medications (cough, headache and slimming products) may contain caffeine

## 4: Cut back on processed foods

As a general rule, eat more foods that come from the ground, the sea, the sky or the land, and a lot less of any food that comes in a box or a plastic wrapper, or in a refined form.

Sometimes it's not easy to work out what's in a product. You need to become what I call a 'food detective' by reading the nutrition information. Keep in mind that you should look at the amounts of protein, carbs, sugars and fats, but also at the ingredients list. Look for low sugar (less than 6 grams per 100 grams) and unprocessed ingredients. If you don't understand the ingredient list, if the list of ingredients is long and full of numbers, don't eat it.

Be mindful of marketing ploys that aim to make you believe that what you're holding is a healthy food – things like 'made

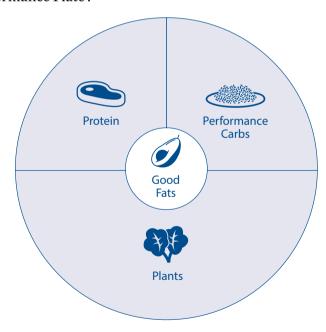
with whole grains', 'high in protein', 'packed with vitamins and minerals'. Read the list of ingredients and then decide if it's what you're looking for.

#### 5: Stick to the Performance Plate

Counting calories is an outdated concept – leave it behind. From now on when looking at your plate, ask yourself the following questions:

- Are there enough plants on this plate?
- What is my protein source?
- What are my healthy fats?
- Are my carbs the right carbs (primal guidelines)?

If you can check off all these points, you're looking at what I call a 'Performance Plate'.



The most important aspect of good nutrition is plant foods, especially vegetables, salads and fresh herbs. Make it a daily goal to consume three to five cups of mixed seasonal vegetables and fresh salads. Vegetables and salads are packed with fibre and protective antioxidants that cannot be found in other foods.

Fresh fruit also provides fibre and antioxidants, however you

should limit your fruit intake to two serves a day. Fruit contains more fructose than vegetables, and should not replace vegetables as a plant source. Think of fruit as one of nature's sweet little gifts – to be enjoyed, but in moderation.

Here are 10 simple combos that tick the Performance Plate guidelines:

- 1. Grated apple with cinnamon + 100–200 g natural Greek yoghurt + 10–20 natural almonds.
- 2. Sautéed spinach, blistered tomatoes, pan-fried mushrooms + two eggs + one slice of sprouted rye bread.
- 3. Smoothie with one banana + baby spinach + 30 g organic vanilla protein powder + a quarter to half an avocado + coconut water.
- 4. Buckwheat pancakes with fresh strawberries, raspberries and blueberries + whipped ricotta.
- 5. Mixed green salad leaves, tomatoes, red onion, green beans + tuna + boiled egg + olives + olive oil and lemon juice dressing.
- 6. Broccoli, green beans and asparagus + pan-fried salmon + sweet potato mash.
- 7. Shredded red and white cabbage, grated carrot, spring onion and fresh herbs + shredded barbecue chicken + olive oil and lime juice.
- 8. Stir-fried capsicum, snow peas, carrot and onion + tamari soy sauce + tofu + cashews + brown rice.
- 9. Butter lettuce leaves + cucumber + coriander + chilli + mango + cooked tiger prawns + avocado + lime juice and olive oil.
- 10. Roasted zucchini, onion, capsicum, eggplant, pumpkin and sweet potato + roast seasoned lamb.

#### 1 to 5 Reduces Inflammation

If you stick with this eating plan for four weeks, I guarantee not only that you'll have a lot more energy and improved mental clarity, and that you'll sleep better and feel a stack healthier in general, but also that you'll also have reduced inflammation.



#### THAI

Vegetable rice-paper rolls, satay chicken skewers, Thai beef salad, steamed fish with lemongrass, chilli, ginger and vegetables, protein and vegetable stirfry (no rice).



Grilled chicken or beef skewers, fattoush salad, tabouli, falafel, hummus, garlic sauce, labne, olives, pita bread.



#### **ITALIAN**

Grilled fish with lemon or marinated steak/ chicken breast and vegetables, any salad with balsamic and olive oil dressing, lamb shoulder with vegetables, bruschetta.

#### **JAPANESE**

Teriyaki fish, chicken or beef with shredded cabbage salad, miso soup, steamed gyoza, sashimi, edamame beans, cabbage and seaweed salad.



#### CHINESE

Clear soup with prawns and Chinese vegetables, won ton soup (no noodles but extra vegetables), steamed fish or chicken with shallots and soy sauce, san choy bow. Systemic inflammation is triggered as part of our immune response to foreign invaders such as bacteria or viruses; the immune response and inflammation help to protect you in these circumstances. Inflammation can also be beneficial when you injure yourself. If you twist an ankle, inflammation protects the injured site while it heals. Chronic inflammation, however, is a different kettle of fish and is linked to diseases including cancer, heart disease, diabetes, arthritis, depression and Alzheimer's.

The foods we eat can be either pro-inflammatory or antiinflammatory. Processed foods such as white bread, fried foods, soft drinks, sugary foods and refined oils are pro-inflammatory, whereas primal foods – especially oily fish, leafy green vegetables and berries – are anti-inflammatory.

After you've followed your new eating regime for four weeks, reconsider your Nutrition Story, paying particular attention to what has changed.

#### **HOW TO 'EAT THE RAINBOW'**

Once you've got the Performance Plate sorted, it's time to add a splash of colour. You have probably heard it a thousand times – 'Eat the rainbow!' – but do you actually know why it's so important to fill your plate with colourful fruit and vegetables? It's the health-enhancing, disease-fighting phytochemicals that make colourful plants so good for us.

Phytochemicals are compounds that are produced by plants (phyto means plant), generally to help them thrive or protect them from predators or pathogens. When we consume them, phytochemicals protect us, too, from disease and ill health. More than 5000 different phytochemicals have been identified, yet only a small amount have been studied closely. Here are just a few examples of different phytochemicals, their food source and health benefits.

# 6: Clean up your takeaway choices

For many people, due to time pressure, travel and a busy life in general, takeaway food is a regular meal option. While there are more healthy cafés popping up, you can't rely on takeaway outlets to provide you with healthy options. The following tips will keep you on track.

- Always look to make vegetables/salad the bulk of the meal. Try replacing white refined carbs with vegetables; for example, order a 'shredded chicken wonton noodle soup' with no noodles but extra vegetables.
- Order the entrée serving instead of the large. Takeaway outlets will never serve you a portion appropriate for weight management.
- If available, grilled fish or roast meat with vegetables is always a good option.
- A wholemeal wrap with chicken salad and avocado is often readily available, and a good 'grab and go' option.
- Avoid all deep-fried foods: these are full of unhealthy fats and provide no nutritional value.

Here are some guidelines for specific takeaway food options:

#### 7: Fall in love with the kitchen

If you're serious about taking control of what you put inside your body, you need to up your game in the kitchen. Your knowledge of and ability to prepare food is all-important.

Like a lot of men, when I separated from my wife I fell into the trap of eating out or ordering takeaway food on a regular basis. After my wake-up call, I realised I needed to get organised in the kitchen – without spending a fortune – and to educate myself on preparing healthier food, in a short amount of time.

The first step is getting the right equipment. My brother's a bricklayer and a fireman (my kids think Uncle Marky is so much cooler than Dad!) and I've never met anyone with a greater work ethic. One of the lessons Mark has taught me is that if you want to be successful, you have to invest in the right tools. The same applies to success in the kitchen. Get the following equipment:

Bowls	A range of five or six bowls that stack inside each other is ideal for preparing loads of recipes.	
Knives	Two or three sharp chef's knives are vital for quick and easy prepping of vegetables and meats; a bread knife for cutting freshly baked sourdough.	
Chopping boards	Use a differently coloured board for cheese, vegetables and meat.	
Slow cooker	Perfect to prepare a meal in the morning, so you can come home to a soup, stew, broth, silverside, curry, lamb shank or pork ribs. Plus there's nothing better than walking in and smelling a beautiful meal ready to be eaten.	
Steamer	I use a saucepan steamer, which is great for steaming vegetables such as snow peas, squash, carrots, broccolini, brussels sprouts and any other seasonal vegetable you like!	
Stainless-steel pans	ldeal for sautéing vegetables, cooking omelets, frying meat or making tasty sauces.	
Blender or Nutribullet	A basic blender with sharp blades to make high- protein smoothies, soups and omelets.	
Other	Good-quality containers to store prepped ingredients like chopped vegetables, pre-cooked meats or leftovers for lunch.	

Now grab your diary and allocate half a day (yes, you are going to need that long if you are serious about getting MatchFit) to sorting out what to chuck and what to keep. Put your primal goggles on and take a good, hard look at what you find. You're going to get rid of anything processed (such as premade pasta sauces, potato chips, biscuits and other sweet snacks) as well as things like refined sugar and white flour.

The next step is a trip to the supermarket, where you'll stock up on all the good stuff. Having 'the basics' in your fridge and

A range of recipes are available on: andrewmay.com/matchfitlibrary



pantry ensures that you can go into the kitchen and in just 10 to 15 minutes prepare a range of quick, healthy and tasty meals for you and your family. Here's what I recommend:

Tins	Tuna, sardines, coconut milk, diced tomatoes
Condiments	Good-quality olive oil (lots of it), salt (unrefined sea salt), pepper, balsamic vinegar, red wine vinaigrette, garlic, ginger, turmeric, curry powders, black olives, fresh chilli, nutmeg, cinnamon, mustard, mayonnaise, sauces (tamari soy, low-sugar teriyaki, fish), honey
Grains	Brown rice, buckwheat pasta, quinoa, rolled oats, natural muesli
Nuts	Cashews, walnuts, pecans, slivered almonds
Meat	Free-range organic chicken, fish, lamb or duck
Vegetables	Fresh lettuce, tomatoes, carrots, sweet potato, capsicum, brussels sprouts, squash, snow peas anything seasonal is ideal
Fruit	Apples, bananas (always have some in the freezer for smoothies), strawberries, blueberries, lemons again, think seasonal and fresh!
Dairy	Butter (ideally grass-fed), cheese (fetta, ricotta, parmesan), Greek yoghurt (full-fat), free-range or organic eggs
Bread	Sourdough seeded bread, sprouted bread
Herbs	Parsley, rosemary, mint, basil, shallots, coriander (cilantro)

Now, what are you going to cook? Well, you don't have to go crazy as you plan your week – just start with three or four different meals for each of breakfast, lunch and dinner. My quick, easy and tasty go-to meals include a serving of protein, fresh vegetables, a small serve of performance carbs (especially if I've been exercising) and good fats.

Breakfast	Omelet with smoked salmon, spinach, asparagus, fetta, chili and black olives.
	Porridge with freshly sliced banana, strawberries, blueberries. Add a big dollop of Greek yoghurt and dress with walnuts, pecans and sesame seeds.
	Poached eggs with free-range bacon, fresh tomatoes, basil and freshly toasted sourdough bread with avocado.
<b>Lunch</b> The best lunch is	Grilled chicken salad with avocado.
healthy leftovers, however this can't always happen. When it comes to lunch, think primal: plants, protein, good fats and quality carbs.	Restaurant steak with a side of green vegetables (hold the chips).
	Salmon and mixed salad wholemeal wrap (a good 'grab and go' option).
Dinner For inspiration check out Jamie Oliver's 10 Minute Meals, or Google easy paleo- friendly recipes for healthy meals that take little time to prepare.	Eye fillet steak or chops served with steamed veggies (broccolini, squash, brussels sprouts, snow peas). Drizzle vegetables with a mix of % lemon juice and % olive oil.
	Grilled seasoned chicken breast with asparagus, broccoli and sweet potato mash, with a dollop of grass-fed butter.
	Silverside cooked in the slow cooker with carrots, sweet potato, onions and potatoes.
	Salmon cooked on the barbecue, with sweet potato fries (baked in the oven) and a fresh salad of lettuce, basil and tomatoes. Salad covered in French dressing (olive oil, mustard, ¼ Spanish onion).

# 8: The three Ps – Plan, Prep and Pack

When I first started working with Teresa, it became obvious that while I had always prepared in advance for my fitness training sessions – including locking them in the diary, having the right equipment, focusing on a goal and working backwards – when it came to nutrition I was just letting it happen. Invariably, this

meant I wasn't prepared: I didn't have the right equipment or ingredients, and I ate too many unhealthy meals.

We all know that in order to become fit, we need to put effort into physical activity – and the same applies to weight management. If you want to be lean, you need to put effort into your nutrition. You cannot simply rely on takeaway outlets or 'grab and go' options to provide you with your nutritional requirements, especially when you are trying to drop body fat. There are weeks, of course, when you can't prep your meals – when you are travelling or on holiday, for example – but this only makes it even more important to take control of your meals when you can. These three Ps will help you stay motivated and on track for hitting your weight-loss and health goals.

#### Plan

Think about the upcoming week and plan your meals and snacks (including meals out). Sit down on a Sunday and think about what you would like to eat, how many nights you can cook at home and what snacks you will have handy. Planning your meals and snacks enables you to write a shopping list specific to your tastes and goals.

## Prep

Do a big shop at the start of the week based on what you plan to eat, and prep as much as you can so that you have meals and snacks ready to go through the coming seven days. Chop vegetables and have them in containers ready to go for salads or stirfries; pre-cook protein sources portion-controlled lunch for additions; bag smoothie ingredients and throw them in the freezer for a quick breakfast option. Not only will this prepping save you time, it will visually encourage you to stick to your goals and eat healthy food.



#### Pack

You can either prep your lunches at the start of the week or cook extra the night before and simply pack balanced leftovers. The truth is that takeaway outlets will never serve you a weight-management meal. Home-cooked, portion-controlled meals are by far the best option for managing your weight and achieving your health goals. Always carry a healthy snack with you, such as a portion of nuts, fruit or a low-sugar protein bar.

# 9: Choose full-fat dairy and butter

Like all foods, you should be consuming dairy in its most natural state. Milk naturally provides the perfect balance of protein, carbs and fats – why would you want to mess with that? Remember, fat promotes a feeling of satiety between meals. If you're trying to lose weight, choose full fat and simply eat a bit less of it.

Let's back up a second, though. Do we actually *need* to eat dairy? Well, no, the main reason we eat and drink it is because it tastes good. Many people consume dairy to boost their calcium intake, however there are many other food sources that provide calcium, including leafy green vegetables, sesame seeds, tinned sardines or salmon with soft bones. You should definitely not consume dairy if you experience pain, discomfort, bloating or a change in your bowel habits after eating dairy foods. These symptoms may indicate a dairy intolerance or even allergy; if you experience any of these symptoms, please see your GP or health professional for further testing.

Once upon a time you would need to visit a health food shop to find dairy milk alternatives, but not anymore! There are fantastic alternatives now in supermarkets, restaurants and cafés. Almond, coconut, macadamia and hazelnut milks are recommended alternatives; if you're feeling brave, you could even try making them yourself. Rice milk is another dairy-free alternative, but this option is often high in sugar so read the label before you try it.

#### **SUPPLEMENTS**

Magnesium is known as the wonder mineral, as it's required for over 300 biochemical reactions within the body, including energy production, muscle function, blood sugar regulation, stress management and optimising blood pressure. Magnesium can be found in wheatgerm, bran, nuts, cacao and green leafy vegetables such as broccoli and spinach. If you're feeling mentally or physically fatigued, suffering from stress, or regularly participating in moderate to strenuous physical activity, a magnesium supplement providing 200–300 mg of magnesium may be beneficial.<sup>16</sup>

B vitamins are a group of water-soluble vitamins required for numerous functions, including red blood cell formation, carbohydrate, protein and fat metabolism, and energy production. They include thiamin (B1), riboflavin (B2), niacin (B3), pantothenic acid (B5), biotin (B7), pyridoxine (B6), folic acid (B9) and cyanocobalamin (B12). Foods high in B vitamins include brewer's yeast, wheatgerm, whole grains, bran, green leafy vegetables, nuts and legumes. If you're feeling fatigued and live a busy lifestyle, a supplement containing a blend of B group vitamins can help to boost your energy and get you through a busy day.<sup>77</sup>

Antioxidants are powerful molecules that help protect our cells from oxidation and free radical damage; the latter is associated with stress, cigarettes, alcohol, excessive sunlight, pollution and a poor diet. The human body can cope with a certain level of exposure to free radicals, however an overload has been linked to premature ageing, heart disease, liver disease and some cancers. Top antioxidants include vitamins A, C and E, copper, zinc and selenium, plus the phytonutrients curcumin, resveratrol and bioflavonoids. Foods that provide the highest levels of antioxidants include turmeric, blueberries, red grapes, pomegranate, cacao and green tea. Including a daily antioxidant supplement will help your body to scavenge free radicals and prevent or reduce cell damage caused by oxidation.<sup>18</sup>

Fish oil contains omega 3, an essential fatty acid that cannot be synthesised by the body, and therefore must be consumed through the diet. Omega 3 can help reduce joint pain and inflammation, and also helps prevent blood clotting, lowers LDL cholesterol and triglycerides, and is vital for brain function, memory and concentration. Foods that provide omega 3 include oily fish (salmon, mackerel, tuna), walnuts, flaxseeds, chia seeds, grass-fed animal products and soybeans. Omega 3 supplementation may vary from 1000 mg to 6000 mg per day, depending on the individual.

**Probiotics** are the beneficial 'good' bacteria that live in our digestive system. Probiotics help to reduce the growth of harmful bacteria within our gastrointestinal tract, promoting a healthy digestive system. Probiotics are vitally important as optimal gut function is the basis of a strong immune system and good health. Foods containing probiotics include live cultured natural yoghurt, and fermented foods such as miso soup, sauerkraut, kefir and tempeh. Probiotic supplementation is especially important if you have recently taken a round of antibiotics, however everybody can benefit from a daily dose of immune protective probiotics.

**Glucosamine** is an amino sugar naturally produced within our body, and is a vital building block for healthy joint cartilage.

Chondroitin is another naturally occurring substance, which draws hydration and nutrients into the cartilage, helping to keep it supple and healthy. A glucosamine and chondroitin supplement (1500 milligrams per day) may protect joint cartilage in those suffering mild osteoarthritis, such as former athletes with squeaky knees. Glucosamine and chondroitin supplementation may also support knee joint mobility and range of movement in athletes and active individuals.

#### **SUPERFOODS**

Now let's turn to superfoods. A superfood, according to the Oxford English Dictionary, is a 'nutrient-rich food considered to be especially beneficial for health and wellbeing'. Packed with nourishing properties including antioxidants and phytochemicals, superfoods can give you an added performance boost and do wonders for your health. Just be aware, however, that 'superfood' is not an official scientific term acknowledged by regulatory authorities; it's more about marketing. That said, follow these examples to boost energy, build muscle, burn fat and/or ramp up your antioxidant intake.

# 10: Intermittent Fasting (IF)

Intermittent fasting should only be incorporated into your eating regime once you have a strong nutrition base. You need to understand and have practised nourishment in order to reap the benefits from IF.

Intermittent fasting simply means going for periods of time without food. Now, before you freak out about the thought of starving yourself, consider the fact that you actually already fast each day – overnight while you are sleeping. Intermittent fasting is just expanding on your current fasting time and implementing structure around the timing of your meals.

Your body is designed to go without food for longish periods, even if it has lost the skill through years of grazing, picking and snacking. Research has found that modern humans tend to mistake a whole range of emotions for hunger.

#### -Dr Michael Mosely

There are several types of intermittent fasting, however all have one common theme: consume your calories within a certain timeframe during the day (a 'feeding window'), and do not eat anything outside of those hours. This gives your body a break from digestion, and time to use its stored body fat as energy.

You may wish to start by giving your body a 10-hour feeding window between breakfast and dinner. This may be completely different to your current feeding routine, especially if you eat breakfast as soon as you wake up and dinner late at night. A 10-hour feeding window isn't that difficult, though:

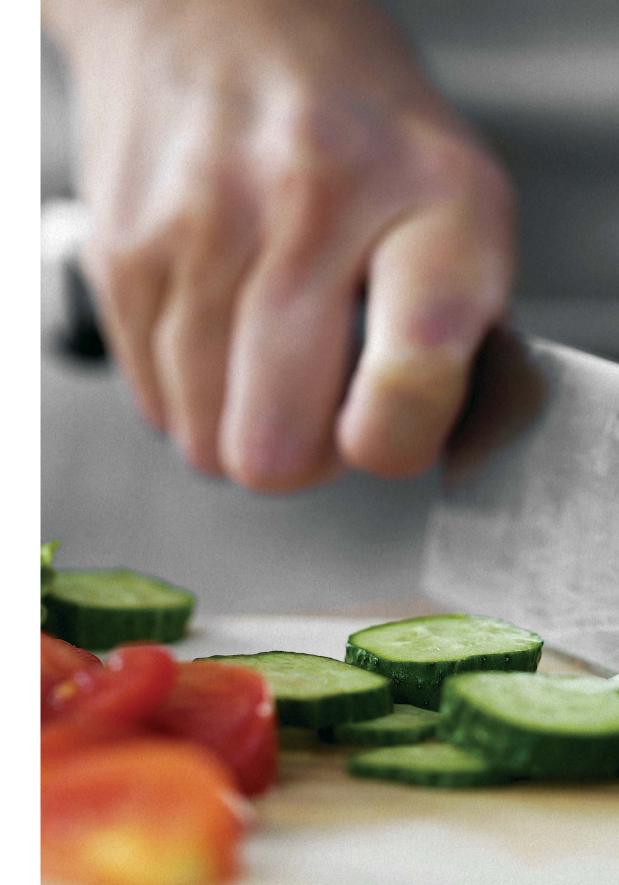
This creates a 10-hour feeding window and a 14-hour fast each day. While you adapt to this way of eating, you may find yourself hungry between meals. Hunger is a normal physiological symptom and will pass, but if you are struggling you can try a cup of green tea to tide you over. Once you acclimatise your body you may wish to extend the fast to 16 hours a day.

#### INTERMITTENT FASTING

A 2015 systematic review published in *The American Journal of Clinical Nutrition* reviewed published studies of fasting. At that time, the three randomised controlled clinical trials that existed (the gold standard study design for determining cause and effect) suggested there were potential health benefits of intermittent fasting, including weight loss and improvements to blood pressure, cholesterol levels and lower inflammatory markers.<sup>19</sup> Additionally, in one study, tension and anger were improved in the intermittent fasting group, and in another study lower prevalence of heart disease and diabetes diagnosis was reported in those who intermittently fasted compared to non-fasting participants.

Research from the Intermountain Medical Center Heart Institute found that fasting was associated with reduced cardiac risk factors, such as triglyceride levels, weight and blood sugar levels. Other research also shows it increases circulating human growth hormone (HGH) in both men and women. Why is this important? HGH has beneficial effects on metabolism and anti-ageing, it promotes fat burning, works to protect lean muscle, improves skin appearance, reduces wrinkles and enables the body to heal at a faster rate.

Importantly, you don't need to eat as often as you currently do – you were often overeating. Listening to your body and understanding its needs is the first step to long-term weight loss and optimal health.





So many of us get stuck on Pierre de Coubertin's Olympic motto – 'citius, altius, fortius', or 'faster, higher, stronger'. At some stage, though, the law of diminishing returns kicks in: the system slows, shuts down, doesn't bounce back. People are working longer hours and pushing themselves further than ever before. But without adequate recovery, exhaustion, overload, chronic fatigue, burnout and stress are inevitable.¹

This chapter examines the benefits of quality recuperation. We'll consider lessons from elite sport, learn about the science underlying recovery and high performance and take a spin around the globe to learn what different cultures do to recharge.

The message is simple: optimising recovery delivers longlasting benefits. Recovery is not a luxury, it is a necessity and an essential component of MatchFit.

# FOUNDATIONS OF MY APPROACH TO RECOVERY

For more than two decades, my approach to recovery has been shaped by three parts of my life:

# Lessons from sport

The sporting world understands the relationship between recovery and performance. Sporting teams and world-class athletes invest as much money in recovery as they do in training and competition. I worked with David Misson when I first started at NSW Cricket. Misso and the medical team at the Sydney Swans (Matty Cameron and Dr Nathan Gibbs) lead the way in recovery in Australian sports conditioning. While travelling the world with the Australian cricket team, I was immersed in the way other successful teams approached training and recovery. I call this my 'practical PhD' working in elite sport.

# Recovery science

Dr Tom and I have assessed thousands of people to see what is going on inside their bodies and brains. Our Human Performance

Lab has taught us that recharging is about building in regular periods of strategic recovery:

- Parasympathetic activation (the relaxation response)
- Psychological detachment
- Restorative sleep is crucial and this chapter includes information on the science of sleep and tips to help you improve sleep habits.

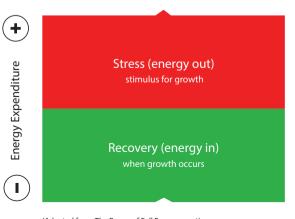
# Travelling and learning from other cultures

The third cornerstone comes from travelling the world – adventuring, searching, learning as I go. I love exploring what different cultures do to balance the ON and the OFF, the yin and the yang.

Let's look at each of these in more detail.

#### 1. LESSONS FROM SPORT

Top-level teams and athletes invest as much (sometimes more) time and money on rest, recovery and quality sleep as they do on training and competition. As this chart shows, my job is to get the balance right between the red zone and the green zone: stressing athletes through training and competition, and then building strategies to fast-track their recovery.<sup>2</sup>



(Adapted from: The Power of Full Engagement)

Apart from pushing myself to exhaustion a few times each week, I miss the life I lived as an athlete. Every spare minute isn't filled with email, meetings, compliance or meaningless distractions. Sportsmen and women enjoy a lot of down time as they balance periods of high and low intensity – stress and recovery. Sports coaches know that if athletes push themselves too hard for too long, the only outcome will be deterioration and collapse. Let's compare a typical sportsperson's day with that of a typical corporate worker.



#### Day in the life of an Athlete

- · Wake up at 7am
- · Relaxed (and healthy) breakfast
- · Read the paper or check internet after breakfast
- Drive to track/pool/oval
- Share laugh with team mates and talk about session
- Train (high intensity) for 90 mins to 2 hours max
- Warm down and active recovery (stretch, easy swim)
- Lunch break
- · Afternoon relaxation time/nap, or study
- Training session #2 (some days) at medium intensity
- · Evening meal with family or friends
- · Wind down before bed
- Sleep by 10pm

Balanced day: intermittent periods of ON and OFF



#### Day in the life of a Corporate

- · Get up at 6am and check emails first thing
- · Skip breakfast or eat on the run
- Drop kids at daycare, get to work and grab a coffee
- · Start official work day more email!
- Back to back meetings all morning, snack on muffin at 11am
- · More back to back meetings and emails
- Race around paying bills and inhales a sandwich at lunch
- Finally get some chance to do 'real' work
- Energy levels dip so grab a coffee at 3pm
- More email and leave office feeling overwhelmed
- Home for dinner and express catch-up with family

  Take in add as a second and as a few and as a few and a few an
- Take iPad to bed, more emails and prep for tomorrow
- · Feel exhausted and fall asleep before midnight

ON the entire day. No downtime. No recovery. No balance. No thinking time.

Too much high-intensity stress means too little low-intensity recovery. The only possible result is that performance wilts – perhaps even to the point of physical or mental collapse.

#### ATHLETES' PERCEPTIONS OF THE IMPORTANCE OF RECOVERY

Athletes must address the imbalance between stress and recovery, where greater training load and stress necessitate increasing recovery. The importance of recovery was highlighted in a study of 890 elite athletes which rated sleep, fluid replacement and socialising with friends as the most important forms of recovery. Men rated an ice bath and supplements as more important, whereas women rated discussions with their teammates and coaches after training and matches.<sup>3</sup>

# Hapa hapa

As mentioned in the previous chapter, when I was a middle-distance runner, a group of Kenyan athletes would come and train with us every year. After our sessions on the track, we would hear the Kenyans sing the Swahili words 'hapa, hapa' which means both 'slowly, slowly' and 'now, now'. Their training patterns were based on listening to their bodies' needs. Kenyans don't need fancy terms like 'Performance Intelligence' – they simply train when they feel good and take time off when they need to. It's not unusual for a Kenyan world record holder to take two or three months off every 12 to 18 months.<sup>5</sup>

#### 2. RECOVERY SCIENCE

This is an important section so bear with us. There are two aspects to recovery science: physical and psychological. We know this intuitively – everyone has experienced times when they feel exhausted even though they've hardly moved from their desk all day. Psychological stress can be just as tiring.

Our biological responses to external and internal environmental cues are controlled by the body's autonomic (or self-

# HOW TINDER CHANGED NBA RECOVERY STRATEGIES

Back in the 1980s, home teams in the NBA won more than two-thirds of games. But recently it's dropped dramatically – by 2017 home teams were winning just 57.4% of games, an all-time low. A recent ESPN report concluded, 'NBA players are sleeping more and drinking less.' Part of that is due to Tinder – seriously! Players on an away game, who once might have spent half the night at a club drinking, are now planning their trysts in advance and getting more sleep as a result. They're also paying more attention to their physical recovery. It all adds up to better performance.<sup>4</sup>

regulating) nervous system. This is like a balancing act between the *sympathetic* and *parasympathetic* nervous systems.

• The sympathetic nervous system (SNS) is responsible for alertness and wakefulness, as well as our ability to respond to stress. It's often termed the 'fight or flight' response.

1/0

• The main role of the parasympathetic nervous system (PNS) is to conserve energy. One way it does this is by slowing the heart rate, particularly when we are resting or sleeping. The PNS is referred to as the 'rest and digest' system.

# THE IMPORTANCE OF REST AND RECOVERY IN THE MILITARY

Brain Corrigan served as a corporal in the 3rd Battalion, Royal Australian Regiment, and in the School of Military Engineers as Corporal PTI. 'Underpinning operational requirements is R&R (rest & recovery). After a patrol we would remove the uniform and adopt a shorts, T-shirt and thongs mindset, contact family and switch off. Slowing down is paramount to performing in high-stress, high-risk environments, even in the jungle where the pace is "slowly, slowly, catchy monkey". The nervous system is firing on all cylinders. Soldiers who have the ability to prioritise recovery are better operators. This is obvious when firing sniper rifles - the ability to reduce the heart rate through slow diaphragmatic breathing allows for greater accuracy and clearer decision making.

'We are normally given a week off during a six-month deployment to completely detach. Interestingly, deployments over six months, particularly those lasting between nine and 12 months, are more highly correlated with increased PTSD symptoms than those deployments lasting five months or less. Andrew's recharge philosophy is imperative for high pressure domains like the military.'

# Heart rate variability (HRV)

HRV tracks physiological stress by measuring the variation in the time between each heartbeat. High levels of HRV are associated with better resilience. Low HRV is associated with stress, disease and decreased resilience. 6

We need to stimulate parasympathetic activation, which is dominant when we are truly resting or sleeping. And that requires us to overturn many elements of our sedentary, caffeinated, 'always on' lifestyle.

#### The balance between ON and OFF

Think of your body as a switch, with stress being ON and recovery being OFF. In an ideal world, you want to spend less than 20% of your time under sympathetic (stress) dominance. However, it is rare that we see that in the real world, especially in middle-aged full-time workers. On an average weekday, we'd like to see a person spend 50% or less of their time under sympathetic dominance, and at least 35% under parasympathetic dominant control.

Sympathetic 50%

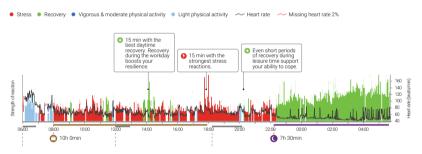


Parasympathetic 35%

If you're good at maths, you'll be wondering where the other 15% went. That comprises movement (both light movement and more intense exercise) and what we call 'white noise' time, where neither the parasympathetic nor the sympathetic system is detected as being most dominant.

## **Measuring HRV**

The following diagram shows how we translate our findings into a simple-to-use stress/recovery profile.



HRV never lies. By measuring HRV over 24 hours, we can accurately detect periods of stress and recovery across the day. We observed the following:

- *Poor sleep:* The average person is still in sympathetic nervous system 90 minutes to two hours after going to bed (meaning they are asleep but their body is still in a physiological stressed state).
- The effect of stimulants: HRV rises acutely within the first 60–90 minutes of sleep, but this expected rise (which indicates biological recovery) is greatly delayed

/2

after alcohol, caffeine and screen use in bed – and after special cuddles – which we've seen mostly in women, not so much men.

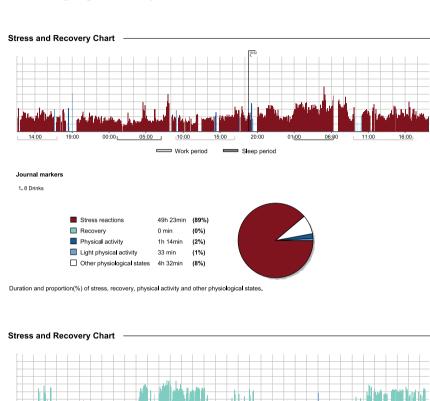
- Difficulty waking: Parasympathetic activity, with high HRV, is most dominant around 4 am, when the body temperature, heart rate and blood pressure are at their lowest, and sleep is deepest. This maximal physiological recovery point can be delayed after drinking or emotional stress the previous night, which is why many struggle to wake out of deep sleep between 6 am and 7 am.
- The benefit of exercise: Habitual exercisers tend to have higher HRV than non-exercisers. One of the greatest benefits of exercise, especially high-intensity exercise, is in how it trains the parasympathetic system to recover and adapt.
- *Toxic stress:* Raised heart rate from exercise is not the same as raised heart rate from emotional stress; the latter is associated with withdrawal of the parasympathetic levels, a type of stress we call 'toxic stress'.

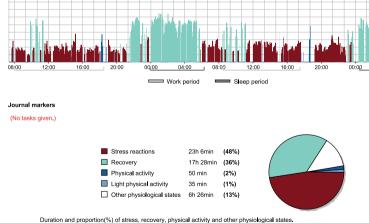
This last point is important, as emotional stress is essentially proinflammatory. Scientists now believe this to be a contributing factor to the increase in chronic disease in Western societies.

# Improving HRV

The three best ways to enhance HRV are by 1) improving your  $\mathrm{VO}_2$  max (see Chapter 6 MOVE), 2) reducing exposure to toxic stress (sugar foods and emotional stress) and 3) increasing parasympathetic activation using a range of methodologies such as breathing and biofeedback (in other words, learning to control what were once thought to be involuntary body processes). The most common way to get biofeedback is to use a smartwatch or phone app to monitor variables like heart rate, respiration rate, skin surface temperature or HRV. Also adopt a low-inflammatory, alkaline-based diet (see Chapter 7 FUEL).

The following table shows the difference between our client Gary's first and second assessments. The interval was six weeks, and in that period Gary was an active participant in our PQ Leader program. Gary is what I refer to as a 'renovator's dream'!





Assessment 1 (Stress 89%, Recovery 0%)	Assessment 2 (Stress 48%, Recovery 36%)
On all day, emails and technology from early morning to just before bed. Checked mobile in bed before sleep.	Working in waves and sustained blocks of focused work. Turned mobile off 30 minutes before going to bed.
No planned exercise and only 3700 steps average each day.	Planned exercise (balance of cardio, weights and some mobility) and walking >10,000 steps each day.
Diet high in foods with added sugar.	Low-sugar diet.
3–5 alcoholic drinks before bed.	Only one alcoholic drink before bed and introduced two AFDs each week.
Jumping from one task to the next, day filled with constant distractions.	Daily warm-up (planning) to start the day and working a minimum of one hour each day technology-free.
Onset of parasympathetic activity delayed during sleep time, very poor recovery.	Onset of parasympathetic activity from midnight, very good recovery.
Difficulty transitioning from work to family life.	Reported much better psychological detachment from work and more present at home.

#### HRV and alcohol

I can't tell you how many times clients have said, 'But alcohol doesn't affect my performance.' My standard response is, 'Cool. Let's get you wired up on a heart rate variability monitor and see what science says.'.

Two standard drinks (the equivalent of 1.25 glasses of wine) have minimal impact on recovery when measured by HRV, but if you double the alcohol intake, HRV reduces by approximately 10%. Doubling it again reduces HRV by at least 25%. The greatest impact of alcohol on recovery is during sleep. The effects are similar in both men and women, and for physically active and sedentary people, but they are stronger among younger people and for people with lower baseline sleep HR.

# Psychological detachment

Psychological detachment means not constantly working or thinking about job-related issues after work. It means leaving the workplace behind – mentally as well as physically. This has become harder as technology has taken over.

Professor Sabine Sonnentag from the University of Mannheim, Germany, investigates how employees can achieve sustainable high performance at work and maintain health and wellbeing at the same time. She highlights the importance of psychological detachment.<sup>9</sup>

In one of her studies, participants who demonstrated a lack of psychological detachment from work in their off time were more prone to exhaustion. We need rituals to detach from work in our down time, especially when demands are high. Proper recovery means better work engagement.<sup>10</sup>

In another study, Sonnentag showed just how critical prioritising recovery is. The subjects' morning recovery level predicted better work engagement that day – and their work engagement itself was predictive of their recovery levels the next day. This shows a reciprocal relationship between recovery and work engagement – or, in MatchFit language, the link between CONNECT and RECHARGE.

# Tips for switching off mentally after work

- Exercise or play sport (moving meditation).
- Listen to or play music.
- Do some gardening or cooking.
- Switch off your phone (hide it in a drawer when you get

home if you have to).

- Try a guided meditation/mindfulness exercise.
- Practise diaphragmatic breathing.
- Play, laugh, giggle, have fun.

#### **TRANSITION TIME**

Transition Time is the space between shifting from one Performance Moment to the next. This is important at the end of the working day. My children don't really care who I worked with. While they might ask 'how was your day?' what they really should ask is 'did you transition properly from work so you can now be present with me?'

Mobile phones are the biggest killers of this transition. How often do you get home with your mind still at work? I advise clients to relax and hide their mobile phone in a cupboard so they disconnect from work and connect with their tribe.

# Physical fatigue

Physical fatigue means muscular fatigue or failure, caused by the type, intensity and volume of exercise (or physical labour/activity). It is determined by mitochondrial density, capillarisation, muscle fibre composition, proton accumulation, depletion of glycogen stores in muscle and neuromuscular characteristics. In other words, physical fatigue is a physiological limitation process of energy generation to meet needs.

# Mental fatigue

Mental fatigue is defined as 'a psychobiological state caused by prolonged periods of demanding cognitive activity and characterised by subjective feelings of tiredness and lack of energy'. Mental fatigue results in reduced alertness, reaction time and effectiveness – all of which mean poor performance. Mental fatigue can be caused by inadequate sleep, inconsistencies in circadian rhythm (body clock), poor motivation or a number of psycho-social factors.

While physical and mental fatigue are governed by different biological processes, they are interconnected. Mentally fatigued athletes report their perception of effort during exercise to be much higher compared to during their non-mentally-fatigued state.<sup>12</sup>



As we saw in Chapter 4, we need to relax after Performance Moments and conserve energy. Three activities that help in this process are diaphragmatic breathing, mindfulness and changing your brainwave state.

# Diaphragmatic breathing

For thousands of years humans have understood breathing has a powerful influence over wellbeing. When prehistoric humans were in danger, their muscles tensed and their breathing became rapid and shallow as they prepared to run or fight. Today, the causes of our stress are different, but our stress response is exactly the same.

When we feel stressed, we activate the sympathetic nervous system. This is a normal and healthy response in the short-term. If we are constantly triggering the SNS throughout the day however, we begin to habitually take shorter, shallower breaths with our upper chest.

Watch the way a baby breathes: the area beneath the chest goes in and out. Most adults breathe from the chest, so less oxygen is taken in with each breath. As a result, the blood is forced to move through the system quickly so that enough oxygen gets to the brain and organs. Higher blood pressure results. Deep breathing can reverse this.

#### **AVERAGE RESPIRATORY RATES**

The first sign of life in a newborn baby is breath. The average adult will take in approximately 20,000 breaths a day. The number of breaths we take per minute is called respiratory rate. You can work out your respiratory rate by counting the amount of breaths per minute, or bpm. Compare yourself to the following:

- Elite athlete during exercise
   = 60 to 70 bpm
- Newborn baby = 44 bpm
- Infants = 40 to 60 bpm
- Older children = 16 to 25 bpm
- Adults = 12 to 20 bpm
- Relaxed adults = 8 to 12 bpm

# Nasal breathing

Most adults breathe through their mouth<sup>13</sup>, but if you've ever done yoga or meditation you will notice the emphasis on breathing through your nose. There is good reason for this. People who breathe through the mouth are more likely to have sleep disorders and attention deficit hyperactive disorder.<sup>14</sup> Nostril breathing also filters and

humidifies the air – meaning it helps prevent colds, flu, allergic reaction and hay fever. And because we tend to breathe at a slower, steadier rate through our nose, we activate our parasympathetic nervous system and balance carbon dioxide levels, resulting in more oxygen-rich blood. Nasal breathing stimulates nitric oxide production, which helps to lower blood pressure, and improve the lungs' oxygen-absorbing capacity. Nitric oxide is also antifungal, antiviral and antibacterial. 16

#### **BENEFITS OF BREATHING**

Self-regulation of brain function is physiologically achieved when our heart rate oscillates with breathing, occurring best at six breaths per minute. At this controlled breathing rate, gas exchange in the lungs is most efficient and HRV increases. The respiratory-induced increases in HRV functions via a positive feedback loop between the heart and brain via the central nervous system. The more you slow breathing with long exhalations, the more HRV benefit you get. The benefits of tapping into the body-brain-body connections through controlled slow breathing biofeedback techniques include:

- Lower blood pressure and increase in quality of life for people with chronic conditions
- Reduced depression, anxiety symptoms and headaches
- Improved management of daily life hassles
- Improved sports performance and reduced performance related stress<sup>17</sup>

## Slow breathing

Breathing practices like pranayama and Buteko follow a similar physiological principle: slowing down the breath reducing carbon dioxide levels and increasing oxygenation which can improve digestion and reduce likelihood of irritable bowel syndrome, asthma, high blood pressure and headaches.<sup>18</sup> 19

Tinkering with the rate of breath and altering the nervous system response (shifting oxygen and carbon dioxide levels in the body) underlies another popular technique. Dutch adventurer Wim Hof holds several world records for prolonged resistance to cold exposure. Hof attributes his ability to a breathing and meditation technique. The Wim Hof Method involves a combination of meditation, breathing techniques (cyclic hyperventilation followed by breath retention) and immersions in cold water. Some evidence shows that it can lead to an anti-inflammatory response in the body<sup>20</sup> and create a feeling of wellbeing<sup>21</sup>.

## A healthy mind has an easy breath.

-Svatmarama Hatha Pradipika

#### **MINDFULNESS**

Mindfulness is all the rage right now. It's associated with:

- Improved emotional regulation, decreased depressive symptoms, anxiety, and stress, as well as increasing self-compassion.<sup>22</sup>
- Lower avoidance, more coping and better adaptation to stress.<sup>23</sup>
- Enhanced spirituality, post-traumatic growth, vigour and lower fatigue in cancer patients.<sup>24</sup>
- Decreased reactivity, improved patience, and selfacceptance, and enhanced relational qualities.<sup>25</sup>
- Reduced back pain in sufferers and higher quality of life ratings.<sup>26</sup>
- Better cardiovascular health through lower incidence of smoking, more physical activity, and healthier body mass index.<sup>27</sup>
- Greater success in improving attitudes, eating behaviours and losing weight.<sup>28</sup>
- $\bullet \quad \text{Improved executive functioning and abilities.} \\ ^{29}$
- Lower levels of work-related stress, greater job satisfaction and job performance.<sup>30</sup>
- Lower burnout and lower turnover intention.<sup>31</sup>

Here's where being mindful has a positive effect:

# Eating

Mindful eating means being aware of the process of eating and noticing and tasting the food you consume. It is about slowing down and savouring food. Mindful eating has been proven to reduce overeating (binge eating) and correlates with better weight management.<sup>32</sup>

#### Driving

Mindful driving is about directing your full attention to the process of driving and being fully aware of the traffic and surroundings. Try switching off the radio and experience the silence. You can also try 3–5 'in and out' breaths before you turn on the ignition. Being more aware of traffic reduces the risk of accidents (duh – bet you probably knew that one) as well as reducing speeding.<sup>33</sup>

#### Communication

Mindful communication includes attentive and careful speaking AND listening. This will help you pick up on verbal and non-verbal cues. Studies show it is easier to put yourself in another person's shoes when you slow down and become present. Relationship satisfaction is higher and emotional stress is reduced during discussions and conflicts when people communicate mindfully.<sup>34</sup>

#### Mornings

Choose an activity like washing your face, having a shower, brushing your teeth or shaving, and focus purely on what you are doing. This provides an opportunity to ease into the day – a bit like a mental warm-up. Our experience shows a 'mindfulness quicky' like this increases the desire and confidence to explore more structured mindfulness throughout the day.

# Changing brainwave states

Neurofeedback is a form of biofeedback where we monitor brainwaves with electroencephalography (EEG). The aim is to teach self-regulation of brain function. Physiologically, this is achieved when the heart rate oscillates with breathing, which occurs best at six breaths per minute. At this controlled breathing rate, gas exchange in the lungs is most efficient, and HRV increases as the brainwaves enter a relaxed and quiet state. While researchers are not exactly sure how this works, what they do know is that these respiratory-induced increases in HRV may function via a positive feedback loop between the heart and brain via the central nervous system.<sup>35</sup>



#### 3. LEARNING FROM OTHER CULTURES

I hear so many people complain about corporate travel . . . While travel can be draining, a little planning can turn it into adventure and fun. If it's part of your work or personal life: *look up* and get off your mobile phone. *Wake up* and get out of bed to go for a walk and see the city. *Shake up* your habits and get outside and explore.

# **Global Recovery Strategies**

Let's take a spin around the globe to see how other cultures get the balance right between ON and OFF.



Russia: Russians love a trip to the banya, or bathhouse. The hot steam clears the skin and fights sickness, and reduces stress and brings people closer together. If you can't make it to a sauna, try having a hot shower or bath while you visualise a calm or peaceful image.



Thailand: Thai massage starts with a breathing meditation, followed by manipulations to relieve tight muscles. Massage can reduce anxiety, lower blood pressure and settle an increased heart rate. It can also reduce stress, anxiety and depression, providing benefits similar to those of psychotherapy.<sup>38</sup>



Switzerland: Go for a hike! How good do you feel after a walk in the woods, or flushing your lungs with icy cold mountain air? Exercising outdoors reduces blood pressure and tension, increases self-esteem, improves mood and enhances problem-solving ability and creativity<sup>39</sup>



Africa: Ngoma ceremonies, which incorporate drums and dance, are used throughout Africa to help people address 'difficult issues', including chronic and mental illness. The benefits include a reduction in stress and feelings of group support, giving credibility to dance as a therapeutic practice.40



Sweden: Since the 1700s, the fika has meant taking a break for coffee and a small bite to eat. But it's more than that: it's an opportunity to relax, catch up with friends or colleagues and refresh before heading back to work.



India: Yoga originated in the Indus-Sarasvati civilisation more than 5000 years ago. Yoga incorporates mental and spiritual practices with multiple benefits, including reduced tension and anxiety, greater physical strength and flexibility, better posture, higher executive function and better attention, processing speed and accuracy.41



China: Qigong is a collection of coordinated body postures and breathing techniques. The goal is to balance and cultivate your 'life energy'. Breathe with one hand on your lower belly and one hand on your chest. Inhale and fill up your lower abdomen, then move into the ribs. As you exhale, slowly reverse the movement, letting your chest drop down first, then ribs, finally pushing all the breath out of your abdomen. Continue for up to five minutes.



Italy: The Slow Food movement advocates slowing down the pace of life and taking time to enjoy things that give us pleasure – good food with loved ones. It's an antidote to the 'throw it down as quickly as you can' phenomenon of fast food.



Romania: By the Black Sea coast is Lake Techirghiol, famous for its mud baths. The accumulation of salts in the water, due to the lake's connection with the sea, creates a hypersaline environment that makes you feel as relaxed as a pig in mud.



United States: While ice baths have become popular as a recovery technique for elite athletes, members of the Polar Bear Club in Massachusetts have been jumping in icy water since 1903. Cold water helps combat small tears in muscles caused by intense exercise, constricts blood vessels, reduces swelling and flushes waste products out of the system<sup>42</sup>

#### THE POWER OF RESTORATIVE SLEEP

How did you sleep last night? And the night before that? Did you wake up feeling fresh and energised? Or are you rolling your eyes at the very suggestion?

Sleep is the single most important recovery activity, so it's vital we get it right. You probably don't think much about it. Although you spend just under a third of your life in a slumber state, you just 'do' sleep at the end of each day, falling into bed when you've run out of gas.

Sleep allows the body's cells to repair and rejuvenate. Many of the restorative functions in the body – including muscle growth, tissue repair, protein synthesis, and growth hormone release – occur mostly, or in some cases only, during sleep. Science is continually discovering new pathways activated during sleep, such as the glymphatic system, a waste clearance system in the brain.<sup>43</sup>

Without adequate sleep the body doesn't recover properly, which results in short-term reductions in cognitive processing, memory and skill acquisition, and long-term fatigue and illness.

#### **SLEEP DEPRIVATION**

Sleep deprivation is just a fancy way of saying 'you are not getting enough'! Symptoms include:

- Constant yawning.
- The tendency to doze off when not active for a while (like when watching TV).
- Grogginess when waking in the morning.
- Sleepy grogginess experienced all day long (sleep inertia).
- Poor concentration and mood changes (irritability).

Lack of sleep has been associated with:

- Decreases in mood, thinking, concentration, memory, learning, vigilance and reaction times.
- Adverse effects on wellbeing, productivity and safety.
- Injury and death from road and workplace accidents.
- A range of health problems, including hypertension, diabetes, obesity and heart disease.<sup>45</sup>

Rather than just 'doing' sleep, the goal I have for you – just like the elite athletes and high performers I work with – is to utilise sleep as a performance weapon.

Motor skills and cognition reduce exponentially with lack of sleep. Cutting just 1–1.5 hours per night over a week-long period will result in as much as 32% reduction in alertness and your ability to perform.<sup>44</sup> Small reductions can result in a 'sleep debt', which can build up quickly. The only way to remedy a sleep debt is with quality, restorative sleep.

## Sleep debt

At times it's impossible to get all the sleep we need. Busy periods at work, sickness and stress, travel or a night on the town can easily mean we don't get a full night's rest.

Before I had kids, I remember new parents asking me about sleep. I would say something like, 'Do everything I recommend and it will help you manage sleep with young children.' After going through that phase of life myself, I've changed my response to, 'Try everything you can, but the reality is you might just need to suck it up for five years and come back to me.'

When we consistently fail to get the sleep we need, we fall into *sleep debt*.

# Sleeping your way to weight loss

When I tell clients that one of the best ways to burn fat is not exercise or nutrition – but proper deep, restorative sleep each night – they look at me like I'm mad.

Researchers at the University of Chicago allowed a group of healthy young men to have only four hours of sleep a night. After five days, they then assessed their blood glucose. Their levels of grehlin, an appetite-stimulating mone, were up by 28%, while their leptin levels, a hormone that inhibits hunger, had decreased by 18%. Not surprisingly, they reported a 23% increase in their hunger level, especially for calorie-dense, high-carb foods.52

#### SLEEP FACTS

- Around 40% of Australian adults experience inadequate sleep. In 2016–17 the total cost of this in Australia was estimated to be \$66.3 billion.<sup>46</sup>
- Without sufficient restorative sleep, good nutrition and regular exercise, performance declines.<sup>47</sup>
- Nineteen hours of wakefulness has been shown to decrease human performance to a similar level as having a blood-alcohol level of 0.08%.<sup>48</sup>
- Research shows clear links between loss of sleep and the inability to process emotional information including understanding others' mental states, emotions and feelings.<sup>49</sup>
- Getting 30 to 60 minutes of sunlight every morning promotes deeper restorative sleep.<sup>50</sup>
- Adequate sleep makes you healthier, mentally more alert, happier, better able to cope with stress. Naturally, you will also perform better during the day.<sup>51</sup>

# The eight-hour myth

The number one question I am asked in relation to sleep is, 'Do I really need eight hours each night?' The answer is, 'Not necessarily.'

Everyone is different, so it's preposterous to say we should all follow exactly the same formula. We need more sleep when we're teenagers and less as we enter our twilight years. The US National Sleep Foundation's expert panel recommends the following for healthy individuals.<sup>53</sup>

Age group	Appropriate amount of sleep
Newborns	14-17 hours
Infants	12-15 hours
Toddlers	11–14 hours
Pre-schoolers	10-13 hours
School-age kids	9-11 hours
Teenagers	8-10 hours
Young adults and adults	7–9 hours
Older adults	7–8 hours

The eight-hour myth has created a society filled with people who feel guilty. From here on, I want you to ditch the eight-hour myth, and instead gain clarity about how much sleep *you* need.

# Cycle your way to better sleep

I've started counting sleep cycles, a concept I adapted after reading Nick Littlehales' book *Sleep*.<sup>54</sup> Littlehales has worked with a range of top athletes.

The 'R90 Sleep Recovery Program' means recovery in 90 minutes, the average length of time it takes a person to go through the stages of sleep that constitute a cycle (the first sleep cycle is about 70–90 minutes and later cycles about 90–120 minutes). Rather than take a nightly approach, we should be looking at our sleep on a *weekly* basis. The average person needs approximately

33 to 35 cycles of sleep a week – which works out to four or five lots of 90 minutes a night. But you don't have to feel guilty for one bad night's kip – you can make up for it another day.

## The stages of sleep

Sleep is made up of four stages of non-rapid-eye-movement sleep, or slow-wave sleep (SWS), and one stage of rapid-eye-movement (REM) sleep, or dream sleep. Together, these phases usually amount to a 90- to 100-minute cycle. Most of us go through four or five of these each night.

- *Stage One*. The transition between wakefulness and sleep. We only spend around 5% in stage one when we are young and healthy. This is roughly the first 10 minutes when you're falling asleep.
- *Stage Two*. This is the onset of 'true sleep', and we spend between 45% and 55% in this relatively light sleep. It lasts for approximately 15 minutes.
- *Stage Three*. This is also called Delta sleep, when the brainwaves start to slow down. It lasts about 20 minutes.
- Stage Four. This is the deepest part of the sleep cycle, when brainwaves slow even further and your body is less aware of environmental changes. It can last between 20 and 70 minutes. We spend around 25% in stages three and four.
- *REM sleep.* The brain is very active in this phase, while the body is generally immoveable, except for twitches. We can spend up to 20% in REM sleep.

In order to have a full night of restorative sleep, we need three to five uninterrupted cycles of SWS and REM sleep. During the latter cycles, we have longer periods of deep sleep; this is when our memory is organised and even strengthened. Interruptions (caused by light or noise, for example) reduce the time we spend in these phases, resulting in poor-quality sleep.

# Sleep and your Energy Personality

Most adults need four to five sleep cycles – roughly seven to eight hours of sleep – each night. But *when* you sleep matters just as much as *how* much you get. Understanding your chronotype, or what I call your Energy Personality, can have a big impact on your productivity, sleep, recovery and relationships.

#### **SLEEP MYTHS**

Here are three of the biggest sleep myths.

Myth #1: We get our best sleep just before waking up.

BUSTED! In reality, we cycle through all the stages of sleep every 90 to 100 minutes. We have most of our deep sleep or restorative sleep in the first two cycles of the night, or the first three hours. If our sleep is shortened for some reason, what we miss out on is mostly dream sleep.

Myth #2: One hour of sleep before midnight is equivalent to two hours after.

BUSTED! There is no research to support this. Especially if you have built up a sleep debt, whatever time you go to sleep, even if it's after midnight, you will be able to get quality, restorative sleep.

Myth #3: Cutting back on sleep will improve your productivity.

BUSTED! This is just plain wrong, although it's widely believed. Cutting back on sleep, especially over the long-term, will drive your output levels right down.

Let's look at the four Energy Personalities, and specific sleep recommendations for each.<sup>55</sup>

- Gazelle: Early riser, with peak concentration during the morning. Gazelles need to go bed early (around 9 pm or earlier). They're the people who do the 'phantom' at conferences, disappearing early in the night so they can get to sleep. Gazelles typically rise between 5 and 5.30 am.
- Bear: The Bear went to bed late as a child and woke up late. If Mum or Dad tucked them in early, the Bear would grab a flashlight and read for hours. Their peak concentration occurs from late afternoon through

to evening. Bears can stay up past midnight, which means that if they're to function properly the next day, they won't be waking up until after 7.30 am, and that doesn't really fit into the typical working day. If you're a Bear, you should aim to be in bed by 11 to 11.30 pm.

• *Tiger:* A hybrid of Gazelles and Bears. Peak concentration occurs in mid to late morning, and late afternoon to early

- evening. Tigers can burn the candle at both ends, but risk fatigue and burnout. Tigers should aim to be in bed by 10 to 10.30 pm and wake up around 6 am.
- *Dolphin:* So called because dolphins sleep with only half of their brain shut down, with the other half on guard for predators. The Dolphin has a low sleep drive and is a light sleeper. Insomniacs fall into this category. Dolphins often have trouble getting to sleep and can wake up multiple times through the night. Dolphins are usually cautious, introverted, neurotic and intelligent, and prefer to work alone rather than in teams; they generally don't care a lot about fitness either.<sup>56</sup>

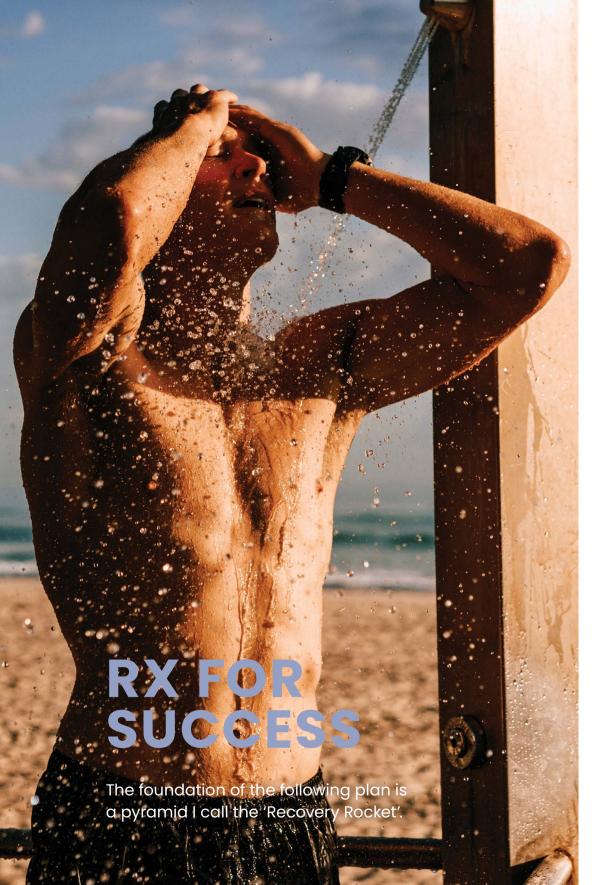
Knowing your Energy Personality will help you understand when the best time is for you to go to bed and get up each day.

#### THE RECOVERY ROCKET

While working with the Australian cricket team during a series against India, fast bowler Brett Lee lacked his usual spark and pace. Turns out, he had travelled to India in the off-season with his manager, which meant that while he should have been having a break, he was busy making corporate appearances, recording songs and building his profile. This was great from a financial perspective, but he was now feeling it.

Team physiotherapist Errol Alcott and I got Brett out in the sun in the morning, filled him up with a good breakfast, followed by a swim and some light stretching. We locked in time away from the game – and time where he was free of business commitments. After each match, his new priority was getting as much rest as he could. It wasn't long before he was slinging the leather at his 150+ km/h speeds again, much to the dismay of the opposition!

My work with Brett and other elite athletes led me to develop a structured Annual Recovery Plan. Here's what it looks like:





Let's start at the top and work our way down the pyramid.

- You should take *one* proper holiday each year (an off-season).
- Aim to get *three* mini-breaks (preferably one mini-break every three months). At the very least, have a day off (or a 'mental health day') every quarter.
- For *30* weeks of the year, aim to get 100 recovery points. (We'll discuss these shortly.)
- On *300* nights of the year, aim to get a restorative night's sleep, where you wake up feeling refreshed and recharged.
- And for 365 days each year (or 366 days if it's a leap year), go slow for at least 10 to 15 minutes.

Let's explore these steps in more detail.

## One holiday

Stockpiling annual leave is a national sport in Australia and each of us stash away an average of 16 days each year. That's more than three working weeks per person.  $^{57}$ 

While it may seem obvious we should take regular holidays, there is strong science backing its benefits. Even just one break improves our wellbeing and happiness, both before and after the holiday.<sup>58</sup> It's imperative for elite athletes to take regular time out to recover and recharge. It not only keeps them in the sport longer, but decreases the risk of injury and burnout. So why do we try to play a five-day 'corporate' Test match *every* week of the year? And

then add a couple of grand finals on Saturday and Sunday?

There's another seemingly obvious thing to remember. Holiday time or leisure time is *time away from work*. It's crucial to practise psychological detachment and stay off the mobile phone and avoid emails. Not only will using your mobile get you thinking about work again, but research shows it also increases brain glucose metabolism, a marker of brain activity, which is not what you want if you're trying to switch off.<sup>59</sup> Get organised before you go away so that other people can manage projects that might need attention.

#### Three mini-breaks

In many football codes, having a weekend off – commonly referred to as a bye – not only freshens the players up mentally, but also leads to a decrease in soft-tissue injuries. A mini-break for workers in the corporate world does exactly the same thing.

I can already hear parents complaining it's impossible to sneak away for a mini-break. But where there's a will, there's a way. Just ask family and friends to babysit.

Here are a few suggestions:

- Go camping by the coast.
- Head to the snow.
- Book a hotel near where you live.
- Have a 'staycation' and explore what the tourists do when they visit your area.
- Buy a new book and housesit for a friend.
- Book an old-style B&B in the country (with huge breakfasts!).
- Go to the zoo.
- · Hire a houseboat.
- Tour a few wineries.
- Go to a day spa.

If you can't afford a three-day mini break every quarter, at the very least aim to take a 'mental health day' in that period. That's a day when you can do whatever you want – except work!

Sticking to an Annual Recovery Plan might just be the missing piece of the puzzle that helps you sustain performance and retake control of your life.

# Thirty weeks with 100 recovery points

David Misson, former high-performance manager at the Sydney Swans, introduced a program where players had to accumulate 100 'recovery points' each week to make sure they were ready for the next match. Each activity – yoga, stretching, massage, and so on – was worth a certain number of points. This activity was so successful we adapted a similar approach for NSW and Australian cricket players.

My 'corporate recovery toolbox' combines activities for Parasympathetic activation and psychological detachment. For 30 weeks of the year, I want you to actively focus on recovering. Your goal is to hit 100 points each week. Here's the list of activities: Add up both columns to get your total score.

Parasympa Activation	athetic		Psychological Detachment	
Yoga		40	Moving Meditation (Relaxing swim, kayak/paddle/surf, easy cycle)	25
Tai Chi/Qigong/Pilates/Stret	tch	30	Nature Walk	25
Massage		30	Park with Kids/Friends	25
Flotation Tank		30	Fishing	25
Relaxing Bath		20	Gardening	25
Sauna/Steam/Hot Tub		20	Playing with Pet/Animals	25
Power Nap		15	Painting/Creative Writing	25
Listening to Relaxing Music		15	Play (Board games, cards, music, dance, adult play**)	25
Meditation	<10 mins <15 mins	10 15	Cooking	20
Diaphragmatic Breathing	<5 mins <10 mins	10 15	Reading Book	20
FOTAL			TOTAL	

\*If you have a mobile phone or electronic device while doing any of these activities, no points!

\*\* If you require more detail, read PLAY chapter.

Note: These are examples and not intended to be all inclusive.

Discover the Recovery Wardrobe on: andrewmay.com/matchfitlibrary



I could have given him an uppercut, but that would contravene the coaching psychology code of ethics . . . Instead, I told him that for an intelligent man, he really did some dumb things. He told me his wife had said something similar.

On his next holiday, he left his phone with the hotel's reception staff, and only checked it each evening. The first two days he had withdrawal symptoms, but by the end of the break his attitude had changed – he didn't want to check it at all.

That's what we mean by psychological detachment.

You'll notice there are no points for grinding out a 10-kilometre run, smashing PBs in the pool or lifting heavy weights. You need to give both your body and your mind the chance to rest. If you use a mobile phone or other electronic device while doing an activity, you don't get the points!

If you're a fitness fanatic, aim to be doing these tasks as well as keeping fit – try swapping one running session for a leisurely walk or a stretching class. It'll give your body a chance to recover, and free up valuable time for you to think.

# Three hundred nights of quality sleep

Your goal here is to log 300 nights of quality, restorative sleep each year – that's six nights a week.

You need to allocate adequate time for sleep and your sleep should be deep and uninterrupted<sup>60</sup>. To achieve this:

- Have a regular sleeping time. The human body loves regularity. Keep your bedtime and rising time as similar as possible each day. Stick with it and it will get easier.
- *Draw the curtains*. Sometimes interruptions are out of your control, but ensuring your room is sufficiently dark will help you get to sleep and get back to sleep if you do wake up.
- Get some daylight. Serotonin, a brain chemical and neurotransmitter that sends signals between nerve cells, is associated with mood elevation and is synthesised during the day from sunlight. At night it makes melatonin, a brain hormone which induces sleep, so getting good amounts of natural daylight will promote better restorative sleep.
- Drink a glass of milk. Milk contains an amino acid called tryptophan, a precursor to serotonin, which in turn is converted to melatonin. Grandma was right when she told you to have a glass of warm milk 30 minutes before you go to bed.

Having a bath an hour before bed, using earplugs to block out

#### THE POWER OF NAPPING

After years of 'travel training' I can fall asleep on a plane before we've even taken off. Napping is awesome for mood regulation, energy and wellbeing. The benefits include better heart function, hormonal maintenance and cell repair. It can also help recharge the brain, resulting in greater alertness, improved memory retention and creative insight.

It can make you a faster typist, better dancer and improve motor skills and coordination. Effects on mental health include improved mood, decreased stress and greater psychological balance. Power naps increase memory by almost 20% and improve performance on repetitive perceptual and cognitive tasks.<sup>51</sup>

#### But there are a few caveats:

- Keep naps between 20 and 30 minutes, or go closer to 90 minutes, to avoid sleep inertia.<sup>62</sup>
- Nap in a quiet, well-ventilated room.
- Clear your mind, breathe slowly and deeply to help switch off and relax.
- If you are going to nap at work, make sure you have permission!

excess noise, and ensuring your bedroom is at a comfortable temperature can also help. The most appropriate sleeping temperature is between 20 and 24 degrees Celsius.

Each morning count the number of 90-minute cycles you had the night before, and add them up at the end of the week. The key to avoiding sleep debt is to measure and balance your sleep across a longer period of time. Aim to get 30

to 35 sleep cycles each week – an average of four or five cycles per night. If you miss out on some sleep one night, try to make up for it later in the week – by going to bed a bit earlier, for example, or by taking an extra nap during the day. After following this process for a few weeks you'll have a good sense of how much sleep you need to function at your best.

# 365 days of hapa, hapa

Each day I want you to spend at least 10 to 15 minutes taking it easy. Going slow is transition time, where you give your conscious mind permission to change gears and engage your subconscious. Some people pray, some meditate, some do diaphragmatic breathing, while others just sit and practise mindfulness. Do whatever works for you.

Try going slow at the end of a busy day and remember to factor in Transition Time. It's easy to come home still thinking about

the deals you've crunched or the problems that have arisen. Slowing down before you get home will help you be more present.

*Hapa*, *hapa* activities include:

- Walking at a gentle pace.
- Having a relaxing bath.
- Listening to quiet music.
- Meditating.
- Sitting still with your eyes closed.
- Gentle stretching.
- Floating in the ocean.
- Breathing exercises.

#### **MICRO-DOSES OF MINDFULNESS**

While it's ideal to put aside 15 to 20 minutes each day to practise mindfulness (Mf), this is not realistic for most people. Instead, look at ways you can be present in everyday moments; all you need is 30 seconds to a couple of minutes. I call these 'Mf micro-doses'.

- Diaphragmatic breathing: Take a slow, deep breath and focus on the air moving in and out of your lungs. Begin by breathing in through your nostrils. Count to five, silently saying the word 'in', and let your lower abdomen fill with air. Then count to five, silently saying the word 'out', as you let the air escape through pursed lips. With practice, you will be able to count slowly to 10 or higher. You can increase your relaxation if you imagine breathing in ocean air, the scent of flowers or forest air.
- Engage your senses: Shift your attention out of your head and focus on something around you. The sound of the clock ticking on the wall, the pot plant swaying gently in the corner of the room, the warm feeling of the sun on your skin. As thoughts come into your mind, realise this is normal; acknowledge your thoughts, then return to focus on your breathing.
- Integrate into normal activities: Simply slow down and do things differently. You can have a burst of mindfulness while catching the lift between floors, brushing your teeth, catching the bus, sitting in a meeting or waiting in line to renew your licence.
   The key is to slow down, focus on the task and be present.

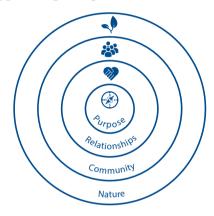




uman beings crave connection. For thousands of years we have lived and worked in communities – it's fundamental to the way we experience the world. Being connected gives us purpose, meaning and pleasure.

This chapter focuses on getting you connected to what *really matters*. We begin with your own sense of purpose, then shift to connecting with others, then with the broader community. Finally, we'll explore why everyone needs regular doses of nature.

I call this approach getting connected from the inside out.



'Connection' means different things to different people but one thing is common: it profoundly affects our physical, emotional, psychological, social, community and spiritual wellbeing.

Let's look at the value and importance of connection, and then MatchFit strategies to help build connection into your daily life.

### **CONNECTION 1: PURPOSE**

When I ask people 'What is your purpose?', they often stare blankly or mumble something vague about health and relationships, finances and future goals.

So I try a different tack. 'What is the purpose of the organisation you work for?' Most can state clearly what their company or employer is working to achieve and give me an inspiring vision statement to boot.

If we can do it for our workplaces, why do so few of us spend time thinking about what our own purpose in life is?

### Understanding 'why'

Simon Sinek, author of the bestselling book *Start With Why*, is recognised as a global expert on 'purpose'. Sinek says that 'fulfilment is a right and not a privilege. Every single person on this planet is entitled to feel fulfilled by the work we do, to wake up feeling inspired to go to work, and to feel safe when you return home knowing you have contributed to something larger than yourself. Fulfilment isn't another word for happiness. Happiness is temporary, fulfilment lasts. Fulfilment is deeper and comes when our job connects directly to our personal "why".'

Few people can clearly articulate 'why' they do what they do. 'How' we do our job involves processes, procedures and ways of working, and 'what' we do is the actual job or industry we work in. But 'why' goes deeper – to what motivates and inspires us. One reason people find it difficult trying to articulate their personal purpose is we get stuck on the 'how' and the 'what'.

Let's examine how clarifying your purpose makes a difference to the way you approach life.

### Purpose helps you live longer

Patrick Hill, a psychologist at Ottawa's Carleton University, using data from the Midlife in the United States (MIDUS) study, assessed how more than 6000 people responded to propositions like, 'Some people wander aimlessly through life, but I am not one of them', along with other questions that gauged their positive and negative emotions.<sup>2</sup> The study found that, 14 years later, those who had reported a greater sense of purpose and direction were more likely to outlive their peers. People with purpose had a 15% lower risk of death than those who responded that their lives were aimless.

Studies on ageing have looked at factors such as age, gender, fitness levels and emotional wellbeing. A sense of purpose trumped all these; Hill described it being 'like a compass or a lighthouse that provides an overarching aim and direction in day-to-day lives'. In another study, he demonstrated that increasing goal commitment during college had effects on wellbeing well into middle adulthood, highlighting the importance of establishing a direction for life as early as possible. 4

### Purpose helps you bounce back faster

The moderating effect of purpose is illustrated in a study of almost 2000 middle-aged participants from the 'Midlife in the United States' study, where those reporting higher levels of sense of life purpose had more positive feelings, and lower physical symptoms on stressful days compared to those with a low sense of life purpose.<sup>5</sup>

### Purpose predicts income and net worth

In a study of over 4500 people, those who reported a higher sense of purpose had higher household income and net worth. They experienced greater increases in their income and net worth over the following decade. And the earlier the participants reported having a sense of purpose in life, the stronger the relationship between purpose and income.<sup>6</sup>

## Understanding 'why' becomes embedded in your brain

Asking 'why' connects to your limbic system, the part of our brain that controls emotions. Having a sense of purpose creates additional neurons and connections, or what neuroscientists call 'cognitive reserve',<sup>7</sup> and helps explain why two people with similar pathological brain ageing changes can exhibit very different levels of brain functioning.<sup>8</sup>

Understanding your 'why' becomes embedded in your limbic system, which helps cognitive processing. Discovering your purpose is the first step to building connections with community and nature – that's why it sits at the centre of the circle.

#### **PURPOSE INFLUENCES YOUR HEALTH**

A greater sense of purpose is linked to:

- Decreased mortality in both older and younger adults.9
- Lower incidence of many chronic diseases.10
- Improved cognitive ageing.<sup>11</sup>
- Better mental health.<sup>12</sup>
- Lower levels of chronic inflammation, and healthier endocrine immune profiles.<sup>13</sup>
- Better cardiovascular indicators risk factors (in other words,waist-to-hip ratio and high-density lipoprotein cholesterol).<sup>14</sup>
- More restorative sleep.15

### **PURPOSE AROUND THE WORLD**

France: The French phrase raison d'être, which sounds even better when a local says it for you, translates as 'reason for being'. That is, the sole or ultimate purpose of a person or thing. It sounds so perfect that we've adopted the term in English!

Japan: The Japanese word *ikigai*, which also means 'reason for being', is used to indicate the source of value from making things in your life worthwhile. A rough English translation is 'the reason you get up each morning' or 'the thing you live for', and the concept has been offered as one explanation for the longevity of many Japanese people. Okinawa boasts 24.55 people over the age of 100 for every 100,000 inhabitants. Having an *ikigai*, combined with a sense of community and healthy habits, gives Okinawans a long, flourishing life.<sup>16</sup>

Denmark: The Danish word *lykkelig* means happy and fortunate. Denmark regularly claims the title of the happiest nation in the world. 'Danes grow up believing they have the right to health care, education, and a financial safety net,' according to *National Geographic*. 'Not having to worry about expenses for their education and healthcare, they can focus on living a purposeful life with time for self-fulfilment.'<sup>17</sup>

When people go within and connect with themselves, they realise they are connected to the universe and they are connected to all living things.

-Armand Dimele



### **CONNECTION 2: RELATIONSHIPS**

Meaningful relationships and a sense of belonging are critical for wellbeing. I'm referring to offline, real-life relationships, not the online ones people obsess about these days. A female colleague recently told me, 'I've got 1275 friends on Facebook, 2500 followers on Twitter, 5000 connections on Instagram and 3000 on LinkedIn, but on Saturday night I had no one to go out to dinner with.'

To improve at our jobs or our sports, we put in time and effort. Relationships are the same – we can't take them for granted and then wonder why they don't feel deep or meaningful.

Research commissioned by the Movember organisation shows half of Australian men have only one or two close friends, and an alarming one in seven said they had no close friends at all. Men aged over 55 were the most isolated.<sup>18</sup>

### The opposite of connection is loneliness

We all have times when we feel isolated or alone. Loneliness is a response to our fundamental need to belong and feel connected. Lack of connectedness, either emotionally or socially, can result in feelings of emptiness, anxiety, restlessness and marginality.<sup>19</sup>

Loneliness can be felt when you are surrounded by other people. Although technology has made us more digitally connected than ever, more people are reporting they feel alone. Research has also shown an increase in loneliness among people who are constantly connected to their digital devices, and who lack meaningful relationships in the real world.<sup>20</sup>

A national survey by Lifeline Australia found 60% of the 3100 respondents said they 'often felt lonely' and almost 93% said they felt loneliness was increasing in society. Lifeline's CEO, Pete Shmigel, said, 'We have more calls to Lifeline about loneliness and social isolation and family and relationship breakdown than we do about mental illness. We need the stickiness, the gooeyness, the conflict that comes with engaging in actual human relationships.'<sup>21</sup>

Loneliness does not depend on how many friends you have: in fact, more than 60% of lonely people are married.<sup>23</sup> Loneliness activates our physical and psychological stress responses and

depresses the immune system. Chronic loneliness increases risk of cardiovascular disease and represents as great a risk for long-term health and longevity as smoking.<sup>24</sup>

For all these reasons and more, building and maintaining close relationships is vital for our physical and mental wellbeing.

## The benefits of a boys' or girls' weekend

In January 2018 the British government appointed its first Minister for Loneliness. Data shows the majority of people aged over 75 live alone. More than 200,000 mature-aged UK residents had not had a conversation with a friend or relative in more than a month. More than 9 million report

feeling lonely most of the time. The

MINISTER FOR LONELINESS, UK

Campaign to End Loneliness' research shows most doctors in Britain see between one and five patients a day who have come mainly because they are lonely.<sup>22</sup>

A Cornell University study found that men who do not have enough quality time with their friends feel less attracted to their partner. Professor Benjamin Cornwell noted, 'A man's ability to play a round of golf or have a few drinks with a friend is crucial to preserving some independence in life.' The researchers also found erectile dysfunction was almost doubled in the group whose wives had cut ties with their husbands' old friends. Coauthor Edward Laumann added, 'Men need to have someone to talk to about the things that matter to him – whether it's football, politics, what car he is going to buy or worries about his health or job. The important thing is that he can let it all hang out and know that what he says isn't going to get straight back to his partner.'25

Research also suggests that long-term friendships, especially ones that go back to our youth, provide emotional stability, a sense of shared history and anchor us in this age of constant mobility. Additionally, researchers at Flinders University found a net-

work of friends is more likely than close family to increase longevity; those with extensive networks outlived others with fewer friends by 22%, while close relationships with children and relatives had little effect on longevity.<sup>27</sup>

### **MINISTER FOR HAPPINESS, UAE**

In 2016 the UAE appointed the country's first Minister of State for Happiness, 'tasked with overseeing plans, projects, programs [and] indices that improve the country's overall mood'.

### **Disconnectivity Anxiety**

A University of Michigan study found the more time a person spends on Facebook, the more his or her feelings of wellbeing decrease and feelings of depression increase. Lead researcher Ethan Kross explained, 'On the surface, Facebook provides an invaluable resource for people to connect ... rather than enhancing wellbeing, however, excessive use (of social media) may undermine it.'<sup>28</sup>

It is wise not to jump to conclusions when reading research like this because determining causation is complex. Does using social media cause depression, or are people with depressive tendencies more drawn to the digital world?

In an article in *The Huffington Post*, psychologist Dr Jim Daley spoke about the by-products of our 'gotta be connected 24/7' culture. 'Disconnectivity Anxiety (DA) is a persistent and unpleasant condition characterised by worry and unease caused by periods of technological disconnection from others,' he wrote.

While not an official psychiatric disorder, Daley sees DA as a growing problem 'associated with symptoms of worry, negative emotions such as fear, anger, frustration, despair, and physical distress'.

#### **MARRIAGE AND HAPPINESS**

There's a strong connection between marital status and health, mortality and longevity. Interestingly, the age difference between spouses also appears a factor with research showing a woman's life expectancy is shorter the greater the age difference from her spouse, while a man's is longer.<sup>29</sup>

Although this might be confounded by a healthy selection bias, marital status is also related to better financial status, and employment. We are social creatures and relationships are integrally connected to our health.<sup>30</sup>

Note: With the changing nature of relationships and acceptance of gay marriage in many countries around the world, it's time to do some updated research on relationships.

Social media can be helpful for work and staying in contact with loved ones living around the globe. But we need to regularly ditch our devices and stop obsessing about how many likes our most recent post attracted. We are so busy uploading photos of our amazing holidays, meals and experiences for everyone else to see that sometimes we're actually missing being present.

### **CONNECTION 3: COMMUNITY**

Humans have evolved to align with those around us.<sup>31</sup>

Firstly, it's about survival. As Julia Coultas, a researcher at the University of Essex, puts it, 'For an individual joining a group, copying the behaviour of the majority [is] a sensible, adaptive behaviour. A conformist tendency would facilitate acceptance into the group and would probably lead to survival if it involved the decision, for instance, to choose between a nutritious or poisonous food.'32

Being part of a group and conforming can point us in the right direction – literally. The use of collective social information can override individual errors and lead to more accurate decisions. It's called the 'many-wrongs' principle.<sup>33</sup> If a group of animals is searching for water, some will head in the wrong direction or be uncertain about which way to go, but the collective force of the group will reorient them – potentially avoiding disaster.

#### OKLAHAMA IS GOING ON A DIET

Just as it can bring out our worst, herd mentality<sup>34</sup> or 'groupthink' can also bring out our best. Oklahoma City was once one of the most obese towns in America. On New Year's Eve in 2007, mayor Mick Cornett announced, 'This city is going on a diet, and we're going to lose a million pounds.'

He wasn't joking. Cornett started an initiative and the whole community, including churches and companies and schools, all signed up.<sup>35</sup> They initiated programs to educate residents about the benefits of better nutrition, physical activity and a healthier mind; they made streets friendlier to pedestrians and cyclists; they built more parks and upgraded the river so people could use it to go canoeing, rowing and kayaking. They made each another accountable because they did it together. And by January 2012, Oklahoma City had lost 1 million pounds (over 450,000 kilograms).

## Community increases will to live

Community is the strongest predictor of how long we will live. Developmental psychologist Susan Pinker<sup>36</sup> suggests a person's close relationships and social integration are better predictors of their longevity than all other factors – including hypertension, weight, exercise, alcohol and smoking.

So why do we treat community as a luxury? It turns out that, along with how *long* we live, it also predicts how *well* we live. If you take a look at the countries reporting the highest satisfaction rates, you'll consistently find the Nordic countries at the top – Denmark, Switzerland, Norway and Finland. In the 2018 World Happiness

#### **EMBRACING THE HYGGE**

The Danish concept *hygge* describes the feeling of warmth created by sharing moments with others – be it a cup of coffee with friends in front of a fireplace, a chat over a slice of freshly baked cake, or a summer picnic in the park. The *Oxford English Dictionary* defines it as 'a quality of cosiness and comfortable conviviality that engenders a feeling of contentment or wellbeing'. Interestingly, countries like Denmark, with their strong focus on community, place very high levels of trust in their governments.

A 'sense of community' consists of four elements: membership, influence, integration and shared emotional connection; incorporating the commitment and belief that members have shared and will share history, common places, time together, and similar experiences. Social epidemiologists believe community belonging, networks, cohesion and social capital play a decisive role in health, wellbeing and mental health outcomes, beyond traditionally accepted risk factors like cardiovascular disease.<sup>38</sup>

Report, Australia ranked 10th and the United States 18th. What have the Nords got that we don't? A strong emphasis on community is a big start.<sup>37</sup>

### Finding your tribe

I love the concept of the 'tribe' – likeminded individuals who come together with a common purpose. The formal definition is 'a social division in a traditional society consisting of families or communities linked by social, economic, religious, or blood ties, with a common culture and dialect, typically having a recognised leader'. In short, it's your group of people.

Everyone wants a place

where we feel at home in our own skin, a 'tribe' to call our own. It goes beyond 'belonging'. Not having a tribe is linked with higher psychological distress, depression and higher incidence of chronic diseases.<sup>40</sup>

Most of us start life with an in-built 'tribe' through school, family, sporting groups or church. If we're lucky, we feel 'ourselves' in at least one of these groups and we remain a part of that tribe throughout our lives. But many of us move away, change and never find a group that feels 'ours'. Circumstances like splitting from a partner, relocating or starting a new career mean we need to create a new tribe. One in three Australians do not feel part of a community or social group.<sup>41</sup>

### The benefits of a tribe

Tribes can save our lives and make them worth living. Dan Buettner, who we met in Chapter 2 through his study of Blue Zones, says tribe was the one commonality among every group. 'The biggest thing here is they also belong to the right tribe. They were either born into or they proactively surrounded themselves with the right people.<sup>42</sup>

Tribes make our lives more enjoyable. Playing team sport once a week for example reduces psychological distress by 34%, and protects against mental health problems.<sup>43</sup>

Community plays a far greater role in both our physical and emotional health than we give it credit for. It may just be the missing link to reorienting your life for greater happiness and contentment.

### **CONNECTION 4: NATURE**

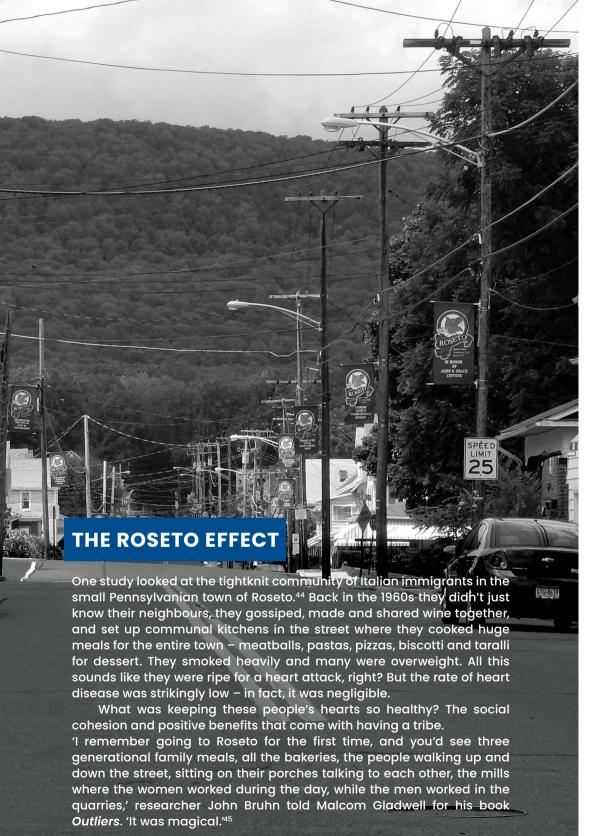
What's your nature jam? For some it's diving through whitewash in the ocean to get the negative ions (or anions for the geeks) pumping. <sup>46</sup> For others it's being surrounded by rugged mountain ranges, feeling dwarfed by ancient, towering trees. Or maybe it's walking barefoot on the grass and feeling cool, fresh air rush into your lungs. Or feeling the fresh white powder slide beneath your skis as you hit the snow to get first tracks early in the day.

Intuitively, we all know that being in nature is good and that it restores and recalibrates us. Biologist Edward O. Wilson believed humans are innately connected to the natural environment – genetically, emotionally, cognitively, aesthetically and even spiritually.<sup>47</sup> Yet more and more people are losing this connection.

The past 20 years have brought about a revolution in how we live. With more Westerners living in cities, the opportunities for contact with nature are diminishing. The 2016 census reported a 78% increase since 1991 in the number people living in apartments.<sup>48</sup>

Being exposed to natural settings has an impact on wellbeing, health and social interaction levels. When people connect with nature, they experience increased vitality and happiness. And the more of it, the better: a meta-analysis of 21 studies reported the more connected you are to nature, the more vitality and life satisfaction you gain.<sup>49</sup>

Just seeing nature during exercise is beneficial. A UK study



showed exercise reduced blood pressure, increased self-esteem, reduced tension and improved mood. But the greatest and most consistent benefits were observed when participants viewed pleasant rural scenes while exercising.<sup>53</sup> Separate research shows hospital patients with a leafy outlook heal faster and need less medication than those looking at a brick wall.<sup>54</sup>

We also socialise more when exercising in natural settings. Compared to exercising indoors, the desire to repeat exercise in-

creased in those who exercised outdoors.55

Spending time in nature is associated with reduced stress measures and lower general health complaints, highlighting the need for business leaders to create opportunities for regular outdoor breaks from the office.<sup>56</sup> Just 30 minutes each week lowers the risk of high blood pressure and depression.<sup>57</sup>

Regular contact with nature is beneficial to health including improved air quality, increased physical activity, enhanced social contacts and enhanced quality of life:58

### The 'feelgood' factor

For those of us living and working in the city, it can feel like we're removed from nature – but it's right under our noses. We just need to step outside. For every hour we spend outside, we spend between seven and eight hours in front of screens. One in three Australians spends less than 20 minutes outside each day.<sup>65</sup>

The figures are similar in Canada, where environmentalist Dr David Suzuki runs the 30x30 Challenge (30 minutes outside every day for the 30 days of May). He has turned the challenge into an ongoing experiment, finding even this small amount of time outside has a profound effect on wellbeing. 'Participants

#### **VITAMIN D**

Why does nature have such a revitalising effect? In part, the benefit comes from vitamin D. Ninety per cent of vitamin D is made from direct sunlight exposure. It is then used by every cell in the body, helping us absorb calcium to keep bones and muscles strong and healthy.<sup>50</sup> Low levels of vitamin D have been associated with a higher risk of cardiovascular disease, diabetes, some cancers, lung wheezing and depression.<sup>51</sup>

In Australia and New Zealand, where the strong rays have a higher risk of skin cancer, we obviously need to be very careful with how much exposure we get. During summer the official recommendation is five to 10 minutes of unprotected direct sunlight; avoiding the times when UV levels are highest.<sup>52</sup>



Every Thursday morning at 6 am in the warmer months I do a CrossFit session at Bondi Beach with my mate Dave. The routine is the same: an easy jog warm up, CrossFit session with fitness guru Built by Dylan, ocean swim, coffee and breakfast overlooking the beach – with mandatory conversation about how awesome we feel. Have Dave and I discovered something new?

Remember your grandparents telling you that seawater is good for you? They were right. Records from the 1600s show medical practitioners prescribed time immersed in ocean water, a practice known as 'thalassotherapy'. Ocean water, unlike river water, has higher amounts of minerals sodium, chloride, sulphate, magnesium and calcium, making it helpful for skin conditions like psoriasis<sup>59</sup> and eczema,<sup>60</sup> as well as having antiseptic effects. Magnesium-rich seawater improves moisture retention in the skin, making it stronger and more rigid.<sup>61</sup> Salty seawater is used as a complementary therapy for sinus inflammation and enhances respiratory system health.62 Similar to exercising in green environments, exercising in the sea is associated with relaxing, meditative stress reduction. This is due to the dual effects of controlled breathing (parasympathetic activation) and the feeling of weightlessness, producing a calming effect on the mind and slowing down brainwaves.63 Cold seawater has additional health benefits, stimulating skin temperature receptors and enhancing endocrine secretion of endorphins (peptides that have an analgesic effect), adrenaline and cortisol (enhancing immunity<sup>64</sup>), as well as dopamine and serotonin, happy hormones that enhance mood state.

And besides all the nerdy science stuff – swimming in the ocean just makes you feel great!

spent more time in nature being physically active and had more restorative relaxing nature experiences by the end of the study,' he writes. 'They had better moods, more energy and vitality, and increased fascination at the end of the challenge – spending time in nature has benefits for mood and vitality, and nature contact is associated with greater awe, curiosity, and fascination.'66

On multiple fronts – from mental health, to sharpening brain function, feeling greater emotional clarity, reducing cortisol levels and socialising better – nature has the power to heal.<sup>67</sup>

Most of us have forgotten that we are connected to each other and to nature; that we are one.

-Suzanne Simard, University of British Columbia

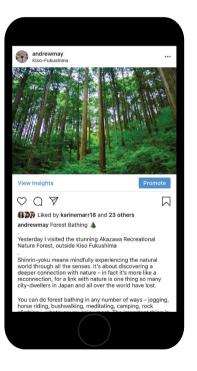
### Forest bathing

I was recently in Japan presenting at a conference. While there I snuck in two 'medical doses of nature' at the stunning Akazawa Recreational Nature Forest, then skied for a full day at the Hakuba snowfields.

I'd heard about 'forest bathing' and I wanted to try it. *Shinrin-yoku* means mindfully experiencing the natural world through all the senses. It's about discovering a deeper connection with nature, which is one thing so many city-dwellers have lost.

You can do forest bathing in any number of ways – jogging, horse riding, bushwalking, meditating, camping, rock climbing – whatever you enjoy most. Be mindful of your surroundings, appreciate the splendour of the natural world, drink in its beauty through all your senses – sight, sound, smell, taste, touch.

Forest bathing lowers blood pressure, improves immunity and increases activation of the parasympathetic nervous system.<sup>68</sup> But the best thing is it also improves your mood!



### **CAN4CANCER: FULLY CONNECTED**

In 2014 Quentin Boyes and I went for an early-morning cycle. During our mandatory post-ride coffee, we spoke about the ride my business had done the previous two years from Sydney to Newcastle.

'I'd like to do your ride next year,' QB said.

'Why don't you sponsor the ride,' I replied, 'and we can encourage CBA employees to raise money for a meaningful cause.'

Bruno Maurel from Tour de Cure entered the conversation and Can4Cancer was born.

Can4Cancer has now grown to be CBA's largest charity, this year 140 cyclists rode more than 450 kilometres over three days, and 3000 people (plus hundreds of additional CBA support staff) across Australia walked a half-marathon. All the money raised goes towards research, support and prevention of cancer. The amount raised this year was \$2.1 million.

Why has it been so successful? Firstly, the idea was picked up by passionate senior leaders inside the bank, who have done an amazing job engaging the branch network, encouraging employees to have cancer checks and participate in wellbeing challenges. Secondly, the event is powered by Tour de Cure, a success story emanating from the original vision Geoff Coombes, Sam Hollier–James and Gary Bertwistle had in 2007 after realising that one in three Australians are affected by cancer. The third reason is Can4Cancer covers all four points of connection:

- Purpose: 'Changing lives, ending cancer' unites CBA employees, Tour de Cure staff, sponsors and the community to improve fitness and raise money to find a cure for cancer.
- Relationships: In Chapter 6 MOVE I wrote about the importance of having like-minded 'fitness mates' for accountability and support.
   Training for a fitness event strengthens friendships outside work.

- Nature: Cycling provides an opportunity to explore the world. There is nothing better than rolling past a beautiful lake or ocean as the sun is rising or winding around a mountainside and taking in the natural beauty. Each year, Can4Cancer visits a different part of the Australian countryside.
- Community: Can4Cancer connects with thousands of children through school presentations where we spread the 'be fit, be happy, be healthy' cancer prevention message. We connect with communities large and small and share a common goal.

Everyone in my team has busy schedules so fitting in training can be a challenge, but doing it together, for a set event and for a good cause, is a great motivator,' says Matt Comyn. 'The CBA Can4Cancer tour has been a great fitness goal, and it has the added benefit of providing camaraderie outside our normal corporate roles. With cancer affecting one in three adults in Australia, the early-morning rides and walking training has certainly been made more bearable knowing our efforts are supporting an important cause. I am extremely proud of Can4Cancer and what it stands for.'

Bruno Maurel, Tour de Cure chairman, sums it up, 'At the heart of Can4Cancer's success is connection. The passion and dedication CBA shows towards their people is impressive. CBA has grown Can4Cancer to what is now the benchmark in Australia for how an organisation engages their staff and partners to get behind a worthwhile cause. CBA is a major contributor to the 25 cancer breakthroughs Tour de Cure has achieved in the past 12 years.'



### 1. CLARIFY YOUR PURPOSE

After 'retiring' from KPMG I had a rough idea of what I wanted to do, but I first needed to articulate my purpose. I knew this would guide decisions on what to do next – and what *not to do*. I worked with Richard Burton from InnerZone and got so much out of it that, with his permission, I'm outlining the approach below.

After clarifying my purpose I relaunched andrewmay.com, hatched a vision for StriveStronger.com and signed a three-book publishing deal. Let's just say that after getting this clarity, things moved very quickly!

So what is your purpose? I *don't* want you to rattle off some motivational nonsense like, 'To add power, passion and profits to people whose lives are barren, broken and busted'. (I heard a speaker at a conference say this when someone asked him what he did, and all I could think of was bolting towards the fire escape.)

I want to know what *drives you, what engages you, what excites* you, what *motivates you to get out of bed each day.* 

### Unique design

There are 7.4 billion people on the planet and we all look, sound and act different. Rare gems and diamonds are buried deep below the surface. Similarly, our purpose is implanted deep within us, waiting to be discovered. You have certain abilities. You know that, because no one taught you. You have been able to do them, effortlessly, for as long as you can remember.

Author Peter Drucker said, 'Most people don't know their areas of strength, in fact, most disregard them.' They cannot identify them, let alone articulate them. You may have ignored or discarded these abilities because you thought they were useless. You thought everyone had them – the fact is, they don't.

My work with Richard taught me that we are not an accident or the result of some random chance. There is an intention or a reason behind the way we have been designed. But how do we know *how* we have been designed? The evidence is there for you to see in a trail of key life moments. That's right: we actually feel the physical evidence, like signposts or markers highlighting the purpose that we have been built for. Our *why*.

In these moments, our experience is different – we enter a different zone from the myriad of meaningless moments. We shift towards a state of full engagement, or flow – a place where our purpose becomes clear. This is where you discover the inner gift that has been buried deep within.

### Three steps to clarifying your purpose

- 1. *Switched-on moments:* Reflect on a recent Performance Moment(s) when you experienced a sense of flow. Was there a time at work, in sport, family life, community, when you:
  - Performed at a level that stood out as extraordinary.
  - Felt effortless and at the same time fully connected.
  - Helped other people.
  - Felt at your best, with feelings such as joy, instinctiveness, passion, laser focus, freedom and trust.

Describe this experience. Who did you become in that moment? What sensations and emotions did this evoke?

- 2. *Clarify your contribution and impact:* Your purpose is made up of two key components: what you uniquely contribute and the impact of your contribution on others. Think about the moment you described above in terms of your:
  - Unique contribution:
    - Strengths: What abilities did you use, and how did you use them?
    - Interests: What activity were you doing, and what did you love about it? Why are you so passionate about this activity?
  - Impact:
    - Motivation: Why did this matter to you? What positive impact or benefit did it provide to others?
- 3. *Craft your Purpose Sentence*: Write a sentence so that it becomes clear when you are fully engaged and doing what you believe totally lights you up.

То	(Unique contribution)
so that	(Impact)

### Working example

It took me a couple of sessions with Richard and lots of reflective time to gain clarity, so I don't expect you to nail it after reading this the first time. Using the above framework, here is my Purpose Statement:

To wake people up to a better way of living, working and leading so that they unleash their full potential

Try it on for a week. Walk around in it. If there's a word that you want to tweak, make the change and write a new sentence. Ask people you respect and know well what they think about your Purpose Statement. When it really fits, you'll know it. Your purpose will shape what you do, how you do it, where you do it and who you do it with. Now it's your turn:

My Purpose Statement is:		

When I was going through a marriage separation, my purpose was tipped upside down. I felt like a failure and thought people would judge me. I couldn't have been more wrong. I now realise that sharing my mistakes with others helps me build empathy and trust – it shows that I am normal. It helps me connect with people in a deeper way than ever before.

Purpose is something we discover ... it is waiting for us all the time. It is the call. The call to service, to serve something larger than yourself. The call to become what we are meant to become. If we ignore this, no amount of external success can make us feel complete.

-Kevin Cashman, Leading from the Inside Out

MATCHFIT CONNECT

#### **GETTING TO THE BOTTOM OF ROSA'S PURPOSE**

When I lived in Hobart I consulted to Ingham's Chickens to help them reduce the amount of soft-tissue injuries on the production line. One woman, a beautiful Italian lady in her late 50s named Rosa, still inspires me.

Rosa's role was to 'exonerate the internal chicken carcass' - or, in other words, to stick a pipe into a chicken's arse and flush it out.

One day, at morning tea, I was chatting with her. 'Rosa, you're always so happy and positive - have you always been like this? She looked at me as though I'd asked a stupid question. 'Of course I am always like this. I have a job and I work with great people."

'A lot of people doing your job probably wouldn't have the same attitude,' I said. 'Andrew, I don't have glamorous job. I stick a hose in chicken's backside. But my job gives me money, so I can buy food and prepare a tasty meal for my husband. I can buy presents for my grandchildren. We travel back to Italy every four years.'

I didn't realise it at the time, but Rosa gave me a valuable lesson: purpose gives meaning to everything we do.

### 2. STRENGTHEN YOUR RELATIONSHIPS

We can't take our relationships for granted and then wonder why they don't feel deep or meaningful.

Start putting important connections in your diary - like dropping your kids at school, having a date night with your partner/significant other, catching up with friends on a regular basis or joining a community group or club. When I say this to some people they respond with 'that sounds so contrived, what about spontaneity and just letting things happen naturally?' The reality is unless you apply goal-setting techniques, relationships won't get the attention or the love that they need and will invariably falter.

You can probably count your true friends on one hand. Maybe even on one finger. Those are the friends you need to cherish, and I wouldn't trade one of them for a hundred of the other kind.

### -Sarah Ockler, Fixing Delilah

It's too easy to neglect the people whom we are closest to, and whose lives we care most about. If you purposefully prioritise them in your schedule or diary, you'll find it easier. For me, this includes:

• Christmas with family (Mum and Dad, my brother and sister and all their kids, as well as my kids).

- Quality time with my partner, Toni.
- Snow-skiing getaway with my family every
- Annual lunch with the StriveStronger cycle squad.
- Catch-ups with different friendship groups.
- A couple of fitness getaways/community bike rides.
- · Annual boys' weekend.

#### **HOFFSITE**

The other thing that doesn't change is our agenda. The same jokes, the same stories, the same activities, the same beer (although Mario introduced

rosé last year and I snuck in kombucha this year). Most importantly, we have the same rock-solid bonds that were forged over 30 years ago. Hoffsite confirms two key things:

In a world where we are constantly connected via technology, it is even more important to be connected to people who embrace and accept us for who we are, with all our strengths, our imperfections and everything in between.

Humans crave connection and the feeling of belonging to a community or tribe. It is critical to invest quality time in maintaining relationships and connections.

Every March I catch up with Deano, Eggo, Lupo and Mario - four mates I went to school with in Dubbo. As the years roll by, some things change, including our jobs, relationships (for some of us), hairlines and bodies. One thing doesn't: that three days in the calendar every March when the Dubbo Boys catch up for what we call our Hoffsite – or Husband Offsite.

One thing doesn't. That demarcation in the calendar every March where the Dubbo Boys (Eggo, Mario, Deano, Lupo) and I catch up for our 3 day annual Hoffsite (Husband Offsite)

As the years roll by and things change including our jobs

Iked by gregmarr and 38 others andrewmay Hoffsite - Annual Boys Weekend

O O A

### Prioritise your important relationships

Take a few minutes to list the important relationships in your life. Start with your family and partner/significant other, then move to your career, then go broader. Then rate these from 1 to 5, based on how much time and effort you are giving each relationship right now. (1 is no time and needs a lot more work; 5 means this relationship is awesome.)

Relationship	Ranking right now	What I can do to improve or sustain this?
Partner/other		
Family members		
Manager/leaders at work		
Colleagues		
Friends		
School/uni/ sporting groups/ other		
Other		

### 3. CONNECT WITH YOUR COMMUNITY

Humans have always formed communities as a way of connecting with and belonging to something greater than themselves. When you're in your early 20s and focusing on your first job, your first car and your first adult relationships, the importance of community may not be on your radar. As we shift through our 40s and beyond, however, it becomes much stronger.

### Find your tribe

As I came out of my perfect storm, I thought a lot about my relationships and the reasons I connected with those people. I have a few distinct tribes:

• *Work:* Colleagues and other professionals in the business/consulting world.

- *Health and fitness industry:* Friends and former workmates/colleagues.
- *Cycling:* One of the best things about cycling (apart from getting fit and the coffee) is the bonds you form.
- *Family:* While you don't get to choose your family, strong connections with this tribe make a big difference to feeling loved and accepted.
- *Hoffsite:* My annual getaway with the Dubbo Boys is so good for my soul!

Think about your tribe(s) and what you get out of them. If this activity doesn't take you very long to complete, perhaps you haven't made it a priority.

My current (future) tribe is:	What they contribute to my life:

Here are some tips for 'finding your tribe':

- Join a local group like an orchestra, dance class or a community gardening organisation.
- Sign up to a sporting club, join a swim squad or a cycle club, register in your local surf club.
- $\bullet \quad \text{Volunteer for a charity that aligns with your purpose.} \\$
- Join a book club.
- Connect with your local fire brigade or neighbourhood watch group.
- Enrol in a class to learn a language, sign up for an art or drawing class, join a martial arts group or a photography group.

All these activities are great for other areas of your life too – keeping you active, thoughtful and balanced.

#### LOOK UP!

Every time I'm in an office building lift, I notice everyone looking down, their nose pointing at the screen of their weapon of mass distraction – texting, tasking, toggling, Tweeting, Tindering. Whether consciously or not, it's part of an effort to look busy, to demonstrate importance.

I've started playing a different game. Call me old-fashioned, but I talk to people, to connect like we did in the old days, before email and digital devices monopolised our attention. The surprise on some people's faces when a) I'm not hiding behind a device, and b) I actually communicate with them, is priceless.

Look Up, a spoken-word film by Gary Turk, encourages people to 'switch off their display and live in the moment'. Turk talks about how we rush to share pictures of our holidays on Instagram, constantly post status updates on Facebook and tweet trending topics on Twitter – but in doing so, often fail to experience the special moments of life. 'The relationships the social media-obsessed build are all too often with people who don't necessarily know them. We are becoming increasingly unsocial, living a parallel social life on the internet which doesn't really exist.'

### 4. CONNECT WITH NATURE

Connecting with nature makes us feel happier.<sup>69</sup> Being outdoors makes you feel alive. The smell of lemon-scented eucalyptus trees, the salt-spray from a blue ocean and the crackle of twigs beneath your feet on a bush track – all these awaken the senses. Outdoor environments beg to be discovered. If you hate going to the gym, explore a valley, a bush track or a mountain range. Grab a surfboard or a kayak and hit the wet stuff. Nature has a great way of disguising fitness activities and making them fun.

Just five minutes of exercise in a green space, such as a park or a rural area, can boost your mental health.<sup>70</sup> The greatest effects are seen when green areas contain water, like a lake, a river or the ocean.

#### **BIOPHILIA**

Biophilia refers to that feel-good effect you get from being in nature. There is an instinctive bond between humans and other living systems.  $^{71}$  But who needs research to back this up? How good do you feel after a walk in the woods or flushing your lungs with icy-cold air on the side of a pristine mountain?

Let's look at some specific strategies you can take to incorporate more nature into your life.

- 1. Include the concept of Seasonal Fitness, which not only adds variety to your routine, but also ensures you tap into the benefits of regular doses of nature in different contexts.
- 2. Each week include a couple of activities where you spend time outdoors. Try an ocean swim, a beach run or a mountain-bike ride.
- 3. Visit your local zoo or wildlife park and enjoy the animals (in a safe way no jumping inside cages!). Spend time with friends or family members who have dogs, cats and other pets, or even get a pet yourself if you have the time and resources to look after it properly. According to psychologists at Miami University and St. Louis University, the emotional benefits of pet ownership can be equal to those of human friendship.<sup>72</sup>
- 4. Lock in a bushwalk in a local national park once a month, or have a regular 'forest bath'.<sup>73</sup> Find a nature sanctuary even if you work in the city (the local gardens, national parks, ovals and reserves).
- 5. Add some green to your life. If you have a view of beautiful tress or the ocean or a lake from your home or work environment that's a bonus. Stop, slow down, breathe and take in the beautiful view. If not, import some green by adding plants and flowers to work and home. Even just a few minutes exposure to nature, or the sound of nature, enhances relaxation, memory and energy levels.<sup>74</sup>

### **CONCLUDING THOUGHTS**

Defining your purpose, nurturing your relationships and friend-ships, building a community and tribe, and carving out time in your diary to get outside and interact with nature takes discipline. When we're tired, overloaded, busy and stressed, we tend to take out the connection points in our life that energise, engage and empower us. I cannot emphasise enough the value of connection.



Intil the late 1990s it was believed that our brains changed and grew throughout our childhood and teenage years, but then stopped when we reached early adulthood. Neuroscience has since found that the brain is 'plastic', meaning it can continue growing and adapting throughout our lives.<sup>1</sup>

We have seen already how physical activity, good nutrition and quality recovery can improve the brain's performance. Now we will explore how the reverse is also true: learning mental skills and training your brain to embrace challenge and growth contributes to healthy decision making and your physical wellbeing. THINK is a vital lever in the MatchFit program.

While the majority of this chapter is based on performance psychology and what you can do to improve brain function and performance, first I want to introduce you to what I refer to as being 'above or below the line'.

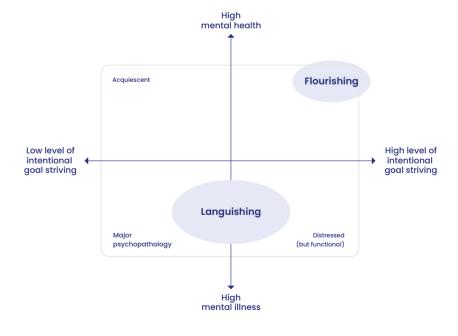
### 1. FLOURISHING OR LANGUISHING?

When it comes to your work and life generally, would you describe yourself as flourishing? As the model below illustrates, flourishing means that you have a high level of mental health and wellbeing, including high satisfaction with life and a high level of intentional goal setting. This model shows that it can be useful to think about how you are tracking according to two measures: how your mental health and wellbeing is (the vertical axis), and how engaged, purposeful and connected you are (the horizontal axis). When you score negatively on the horizontal axis, that's a sign that you are languishing.

After presenting hundreds of workshops over the years I put together a table to help participants think about the behaviours and traits that best described them. Where do you sit on the flourishing/languishing chart?

Languishers	Flourishers
Fatigued	Energised
Lonely	Socially connected
Constantly distracted	Focused and attentive
Overwhelmed	Productive
Empty and sad	Fulfilled and joyful
Bored and stale	Creative and innovative
Listless and flat	Playful and fun
Unexcited	Excitable and optimistic
Things seem hard	Things seem easy

Research by psychologist Corey Keyes revealed that at any one time only 17.2% of people met the criteria for flourishing and 57% reported 'moderate' mental health.<sup>2</sup> The fact that only 17% of people are in the flourishing category alarms me and underpins my personal vision to 'wake people up to a better way of living, working and leading'. You don't have to accept that life is just okay, and you definitely don't have to accept that there is nothing you can do about it. There is so much you can do, and this starts with the premise that you can change the way you think.



### Moving up the scale

Take another look at the flourishing/languishing chart and you'll see that the MatchFit program focuses on improving your performance on both the horizontal and the vertical axis. The MatchFit levers CONNECT and PLAY are specific to the horizontal axis. If you find yourself below the line in the languishing zone, one of the key skills to focus on is identifying negative thoughts and attempting to have more positive, optimistic thoughts. Developing a flexible, agile mindset that prepares you with the necessary skills to survive in this crazy, yet highly opportunistic world we inhabit.

#### IT IS OKAY TO NOT ALWAYS BE OKAY

Towards the end of the 2015 AFL season, one of the leading (and highest-paid) players, Sydney Swans star Lance 'Buddy' Franklin, acknowledged that he was struggling with mental health issues. The way the board, coaching staff and players reacted was exemplary. They acknowledged that big, strong men like Buddy can experience depression – and that it's not a weakness, but is treatable.

At first Franklin felt 'inhibited and embarrassed to seek help', according to an article in *The Age*. 'It had been an issue for a little while with me,' he said, 'but ... I wasn't able to talk about it and I was a little bit embarrassed. Being able to speak to the football club, my partner and my family was the best decision I ever made.'<sup>3</sup>

The message is clear: if you find yourself feeling sad, down or miserable for more than two weeks, seek professional help. I learned this the hard way during my perfect storm. I was in denial for more than 18 months, and I spiralled into a deeper and deeper hole until I put my hand up for help and acknowledged that it was okay to not always be okay.

### 2. THINKING SKILLS FOR THE NEW WORLD

The world has changed: the Old World of Work, with fax machines, rotary phones, thermal overhead transparencies and typing pools has been consigned to history. The way we work and live today is busier, constantly changing and more complicated than ever. With the focus on streamlining business systems, processes and technology, we are achieving a lot more in less time. Think back to a busy day 10 years ago; an equivalent day today would feel like a rest day for most of us.

### I HAVE A DREAM

Imagine this: you sit on the solitary black chair in the medical clinic (they always have black chairs) and your doctor asks, 'So, why you are here today?' You respond, 'Well, doc, I've been feeling really flat lately. Tired. Listless. Lack of joy in my life and I've had no energy. In the words of Austin Powers, I've lost my mojo.'

Before pulling out the prescription pad, your doctor leans forward in a caring manner and says, 'I'm going to ask you a series of questions to try to get to the bottom of why you are feeling so flat. Let's go. In the last month, have you been:

- Moving and exercising on a regular basis?
- Eating healthy, nutritious food, low in sugar, and predominantly fresh produce?
- Drinking alcohol in moderation and having regular days with no alcohol?
- Avoiding drugs and other stimulants to pick you up?
- Laughing, playing and having fun on a daily basis?
- Having regular (ideally daily) doses of nature?
- Connecting with colleagues, friends and loved ones in a truly meaningful way?
- Intimate and had physical contact/sex with your partner, significant other, or other people?
- Conscious of sitting down and reflecting about parts of your life that you are grateful for?
- Building in regular periods of relaxation where you do activities that help you calm your mind and slow down?
- Waking up each morning feeling rested and ready for the day ahead?"

After getting over the initial shock, you realise your doctor understands that a healthy, balanced, active, connected, playful and engaged life is the platform for flourishing psychologically.

While the speed at which we do business has accelerated, most people have done little to reboot their body or brain to adapt and survive, let alone thrive, in what I call the New World of Work. Constant change, digitisation, artificial intelligence and global competition have transformed the skills we need. The next section sets out the psychological frameworks and strategies you need in order to flourish in the new world. We're going to explore a number of topics, including:

- Building a growth mindset.
- The importance of grit/perseverance.
- The power of positive psychology and learned optimism.
- How gratitude can improve your thought processes.
- The difference between happiness and fulfilment.
- The importance of adopting a strive philosophy.

### Building a growth mindset

A question regularly asked in the corporate world is: should you focus on employing people based on their IQ/intelligence or their attitude? Talent scouts in sports across the world constantly debate exactly the same thing.

Stanford University psychologist Carol Dweck and her team discovered that people's core attitudes categorise them as having one of two types of mindset: either a 'growth mindset' or a 'fixed mindset'. Having a growth mindset is a much better predictor of success than IQ.4

Dweck has been studying mindsets for years and argues that 'success in life is all about dealing with failure'. And failure, she explains, is really just information – about what didn't work, and therefore about what might work better the next time.

People who have a fixed mindset consider that their abilities, intelligence and talents will not change. People with a growth mindset, by contrast, believe that most things can be improved with additional training and/or effort. They overtake those who have a fixed mindset, even when they have a lower IQ, because they embrace each challenge and treat it as an opportunity to learn something new.

Your success in life is closely linked to how you deal with challenges and setbacks. And developing a growth mindset is the best way to turn setbacks to your advantage and use it to improve. And the good news? You are not born with a growth mindset – it is learned.

### The power of grit

Grit is the combination of passion and perseverance in the pursuit of long-term goals.<sup>6</sup> The good news is grit too can be learned, regardless of your past. One way to foster grit is through developing a growth mindset.<sup>7</sup>

University of Pennsylvania psychologist Angela Duckworth spent years analysing the short- and long-term effects of grit on people's performance in multiple domains including investment banking, education, the military, football, swimming and chess. In the process she discovered 'common denominators that successful



### MITFREUDE = JOY THROUGH OTHER PEOPLE'S SUCCESS

Taking pleasure in other people's success is a key component of fostering a growth mindset. I'm sure you've heard of the German term schadenfreude, which translates as 'pleasure in other people's misfortune'. But do you know about mitfreude? When I work with elite athletes, one of my greatest joys is seeing them qualify to play or compete for their state or country. When Ed Cowan was presented with his baggy green (by one of his batting childhood heroes, Dean Jones), it was the culmination of years of hard work and practice. Seeing Ed achieve his dream made me proud. Part of fostering a growth mindset is taking pleasure in the success of others. And inadvertently, when you develop other people, it has a way of coming back to potentially benefit you through social connectedness with stronger relationships, higher change of success and greater sense of wellbeing.5

people had distinguished themselves in overcoming multiple challenges over multiple years to sustain the pursuit of something important to them'.8

'Most of the research and psychology says that people change much more after childhood than you first would think. There are all these Biblical phrases like "show me the child at seven, and I'll show you the man," or Freud, who thought everything interesting happened in

#### **GRIT WINS EVERY TIME**

Over the years I have met hundreds of 'braniacs' who, despite their intellect, have not lived up to their potential. I have also worked with loads of talented athletes who thought that their victory in the genetic lottery would take them to the top. Board rooms, athletic tracks, football fields, netball courts and swimming pools are awash with missed opportunity. Those who do reach the top get there because they work hard.

On the flip side, we all know people who may not be applying for Mensa but who have still achieved phenomenal success in life. There are countless stories of athletes, academics, politicians, actors and entrepreneurs who, through hard work and discipline more than through intelligence or skill, got to the top.

We read about inspiring examples of people like Oprah Winfrey and Larry Ellison (the founder of Oracle), who have overcome very tough childhoods or extremely difficult periods in their lives to carve out successful careers and build successful companies. What about you? When have you used grit – which is to say, passion and perseverance – to overcome obstacles?

childhood, that there was no growth after that. Neuroscience and longitudinal research suggests that people change a lot, and they change sometimes in dramatic ways,' Duckworth said in a 2018 interview.<sup>9</sup>

### The power of positive psychology

A lot has changed in psychology over the last 10 years, due to pioneers like Martin Seligman in the United States, Robert Holden in the United Kingdom and my good friend Dr Timothy Sharp in Australia. One development has been the emergence of the concept of 'positive psychology'.

Positive psychology teaches us to look at the world in a new way. Instead of studying past mistakes or delving into things that make us unhappy, you're encouraged to see the bright side, asking yourself questions like, 'What do I have going for me?' or 'What

## POSITIVE THINKING IS NOT POLYANNA THINKING

When I teach positive psychology, I always see some people sitting in their chairs thinking, 'Next he's going to click his shiny red heels and tell us that "there's no place like home"!' But positive thinking isn't a 'don't worry, be happy' attitude, nor is it about being unrealistically optimistic. Thinking with positivity means choosing to focus on the range of positive emotions available to us. Crucially, it involves having a realistically optimistic attitude that triggers positive emotions, which, like negative thoughts, spark a chain reaction of powerful feelings, actions and behaviours. But unlike negative thoughts, which narrow how we think and feel, positivity broadens our outlook, increasing the resources available to us.

did I do right today?' or 'What new skills can I learn to help me get a new job or a promotion?'

This new science is legitimising the idea that fulfilment is more than something to wish for temporarily – it's something we can work for and consciously gain through changing the way we think about ourselves.

When we practise positive psychology, we:

- Focus on what's *right*;
- Learn about *signature strengths* and about weaknesses too, so we can channel more energy into what we do well and less on those things we don't do well; and
- Pick ourselves up during the tough times, maintain perspective and focus on the good times ahead.

Positive psychology teaches that changing the way we think is like learning a new skill, like playing the guitar or ice skating: we need to keep practising until we become competent and eventually gain mastery.

Psychologist Barbara Frederickson's research shows that individuals, marriages and business teams that are flourishing have a positivity ratio of 3:1. That is, for every negative emotion, there are three or more positive emotions. People who become chronically stuck in the languishing category due to poor thinking skills, whose relationships flounder, and who are in business teams that are unproductive and unprofitable, tend to have ratios of around 1:1. Toxic business teams have a reverse ratio, with more negative interactions than positive.

Developing positive psychology – or learned optimism – lays the foundations for optimal performance. Optimists focus on opportunities rather than on things that could go wrong, and don't get bogged down with things that haven't gone right in the past. They think about their strengths and qualities, and they look for the positives in others too. Because they believe things will work well, they take action to ensure that they do.

Thinking like this is a skill, and like any other skill you need to first learn how to do it, and then put in plenty of practice – until you become an expert. The more optimistic you are, the better your performance will be. Later in this chapter we'll explore strategies to do exactly that.

#### Gratitude

If your impression of gratitude is Hallmark-worthy quotes on Instagram, you might think it's insufferable. But gratitude isn't about gushing expressions of mushiness. Gratitude – the act of appreciating the good in life – is a powerful practice that boosts the feel-good neurotransmitters dopamine and serotonin and the hormone oxytocin. It can improve our relationships, enhance recovery from illness, foster resilience, boost self-esteem and our sense of wellbeing, and even give you a better night's sleep.

Like positive psychology, gratitude is often misunderstood as starry-eyed optimism, but gratitude does not mean denying life's

spectrum of experiences and emotions. Rather, it is a choice you can make, even in your darkest moments, to acknowledge that good also exists.

Robert Emmons is a professor in psychology and an expert in gratitude research. He proposes that gratitude has two parts.<sup>11</sup>

First, it's an affirmation of goodness. We affirm that there are good things in the world, gifts and benefits we've received. This doesn't mean that life is perfect; it doesn't ignore complaints, burdens and hassles. But when we look at life as a whole, gratitude encourages us to identify some amount of goodness.

The second part of gratitude is figuring out where that goodness comes from. We recognise the sources as being outside of ourselves. 'It didn't stem from anything we necessarily did in which we might take pride. We can appreciate positive traits in ourselves, but I think true gratitude involves a humble dependence on others: we acknowledge that other people – or higher powers, if you're spiritual – gave us many gifts, big and small, to help us achieve the goodness in our lives.'12

Author Deepak Chopra agrees that in gratitude we experience the spiritual.<sup>13</sup> This makes sense on several levels. Whether or not we are religious, we can intuitively understand the 'spiritual' feeling of being connected with something greater than ourselves. Gratitude, a social emotion, connects us intimately with others – so it is through the act of gratitude that we can become one with something greater than ourselves: each other and the world around us.

### The importance of striving

I love the word *strive*. It represents something we all need more of in our lives and is interwoven with psychology frameworks on growth mindset and grit. Striving also links with gratitude, as taking time to reflect on accomplishments, especially the challenging ones, is a big part of ensuring a healthy brain and a flourishing mind. Striving is connected to our sense of meaning/fulfilment and to our sense of purpose. To strive is to embrace change and step out of your comfort zone.

Striving is about the sense of pride you get from struggling

#### **HAPPINESS VS FULFILMENT**

The word fulfilment comes from the Old English for 'making full' or 'providing a sense of completion'. Compare that to the word happy, which has origins in the Old Norse for 'luck' or 'unforeseen occurrence' – which suggests that how you feel can be very much a matter of perspective.

Research by psychologist Roy Baumeister found that people are happiest when their needs and desires are met in the present moment. A sense of meaning and purpose, on the other hand, comes from considering the whole of our lives, including the past and future. When people speak about 'happiness', it tends to be about leading an easier life, having fun and being able to buy what they want. Having a 'meaningful' life tends to be related to fulfilling social relationships, being charitable and engaged in the community, and caring for children/others.<sup>14</sup>

There is nothing wrong with feeling happy – it is a pleasure that should be enjoyed. An ice cream, sex, \$25 million can make you *feel* happy – but the thing about happiness is that it is *fleeting*. You get that lovely, pleasurable sensation that lasts a moment, a minute or a month, and then it subsides.

It becomes perilous when we try to make happiness our permanent state of being. When we cultivate the inner satisfaction of fulfilment, however, we have a foundation for handling the natural fluctuations of happiness, along with the full range of the emotional experience, including the discomfort inherent in striving towards our goals – when we do that, we temporarily forgo happiness in order to gain nourishment that lasts. Fulfilment through purpose and meaning is a baseline we should all be striving for.

towards and achieving something you long for. When you ask people what achievements they are most proud of, it is rare to hear answers like 'winning \$100,000 in the lottery' or 'when daddy bought me an expensive new car'. Instead, it's about the challenges people have overcome. The success that comes from hard work. You appreciate something a lot more when you have to work hard for it.

When I think of the times I have felt proudest, it is when I have gone to my edge, been truly tested, and pushed through and come out the other side.

- It was when I felt sad, depressed and alone after a marriage breakdown, and had to fight my way out to become a better dad and a happier, more connected human.
- It was when reporting to a temperamental manager who actively tried to block myself and the efforts of my team to build a robust business. I had to stay committed to my compelling vision of making a difference to people's lives, and not allow the toxic environment to

- extinguish the flame inside me or to douse my passion to build an innovative technology offering.
- It was being in pitch-black, freezing waters while I
  was training to swim the English Channel and had to
  breathe my way through an anxiety attack and keep
  going even when my brain was yelling at me to bail out.

### Our greatest growth comes from pain

While it definitely does not feel like it at the time, challenging, even negative events are linked to surprising benefits in people who have experienced a moderate amount of adversity in life. They're predictive of lower global distress, lower functional impairment, and increased satisfaction. In one study of 1500 adults, researchers reported that those who overcame adversity in the past were more likely to savour the present, and experience better overall subjective wellbeing.

I have a real issue with kids getting a ribbon for coming ninth in their school carnival. I think this is wrong and creates a softening and a sense of entitlement that even if I don't work hard, I still get rewarded. Then the child who has had a cushioned existence enters the workforce and receives robust/honest feedback about their (lack of) performance and they break down in tears. We all have our ups and downs in life and learning how to strive and set goals, even in the most challenging times, is an essential part of being MatchFit.

### 3. PERFORMANCE PSYCHOLOGY

Now that you understand why a growth mindset, fostering grit, positive psychology, practising gratitude, focusing on fulfilment (over short-term happiness) and adopting a philosophy of 'strive' helps you have a more flexible brain that can adapt and change and grow throughout your life, it's time to explore the pointy end of performance psychology.

There is a reason I teach in this sequence. If you start with performance psychology techniques too early, they can seem too hard, or you may not be in the right headspace to implement them. If you're feeling sad or depressed, or have low self-esteem, affirmations can actually make you feel worse.<sup>18</sup> Starting at performance psychology without focusing on building a solid base is like putting the icing on a cake you haven't baked.

### Training for mastery

I love watching someone who has mastered their trade – an elite athlete playing for their country, a dancer performing on main stage in an opening-night production, a CEO holding a press conference announcing annual results with absolute clarity on why the company outperformed the market. In each of these examples the performance coach in me is mesmerised, in total admiration, at the thousands of hours of practice that have gone into perfecting these skills.

That is where performance psychology can take you to another level. While you might not want to become a world-beater in your sport, your dancing or your presentation skills, investing time towards training your brain and learning how to effectively respond to stress has a big impact on your wellbeing, your relationships and your career. In fact, the biggest differentiator between a great performer and an okay performer is the ability to manage stress. <sup>19</sup> It's about teaching people to shift into the right psychological (and physical) state before important Performance Moments, then to switch off and relax, conserving energy as they transition.

Sports psychologist Michael Gervais says that, 'There are three things you can train. Your craft, your body, and your mind.'20 What excites me about performance psychology is that you really *can* train your brain to react calmly and methodically in high-pressure situations.

But it doesn't just happen by luck: you need to invest the time to effectively 'front-load cognitive skills that you can draw on when needed', as Gervais puts it.<sup>21</sup> When I work with clients at the pointy end, I draw heavily upon what my coaching psychology masters taught me about the 'canon of sports psychology skills' (including relaxation, self-talk, imagery goal setting and concentration); along with what I learned as an athlete and a coach in the world of elite sport.<sup>22</sup> Here is my approach:

MATCHFIT THINK

Relaxation	Reducing arousal and anxiety levels through relaxation techniques has been shown to successfully combat 'choking', and help people get into a state of flow. Relaxation techniques reduce the stress hormones in our bodies that make performing at a high level unsustainable. Finding ways to shift gears between energy expenditure (stress) and energy renewal (recovery) is also called 'arousal
Self-talk	Self-talk specific to peak performance is an umbrella term for a variety of skills that counterbalance the negative consequences of anxiety-producing and disrupting thoughts. <sup>23</sup> Self-talk is utilised to combat negative and self-defeating internal dialogue; like any other skill, it requires intentional practice. Knowing how to respond when your inner voice starts to take over is key to winning the internal dialogue game here.
Imagery	Imagery involves mentally rehearsing aspects of your performance. It allows you to practise in your mind before you perform, and to see yourself perform at your best.  The skilled use of imagery helps you clear your mind of distractions, think positively about what you are going to do, and be fully prepared. Effective use of imagery engages as many of the senses and emotions that can be invoked and is more inclusive than mere visualisation. <sup>24</sup>
Visualisation	Research has shown the brain doesn't differentiate between a real memory and an imagined one. <sup>25</sup> Visualisation has been shown to program the subconscious brain and can be as effective as real practice. <sup>26</sup> It is one of the primary techniques used in sports psychology.
Goal-setting	A primary performance-enhancing technique and precursor to success, goal-setting focuses our attention, is an act of commitment, can incentivise us and foster persistence, boosts confidence when we achieve our goal, and helps us break large tasks down into bite-size pieces. Dr Edwin Locke was a pioneering researcher on goal-setting and motivation in the late 1960s and his findings are still applicable to us today. <sup>27</sup>
Pre- performance routines	A pre-performance routine is a 'sequence of task relevant thoughts and actions which a performer engages in systematically prior to his or her performance of a specific skill'. <sup>28</sup> I teach two methods relating to this, which we'll look at later in this chapter.

### Performance flip: stop playing the Same Game

There is a juxtaposition between high-performance rituals/ routines and getting stuck playing the Same Game. The mental skills detailed above make a massive difference to high performers. However, I noticed that after a sustained period of success, a number of my athletes, sporting teams, executives and organisations became stale and lost the energy, vigour, passion and drive that had catapulted them towards their original success. I call this 'playing the Same Game'.

The Same Game is the tendency do the same thing in the same way every day, which can create monotony, boredom and a lack of spark. It's vital to fire the neurons in the brain in fresh ways to keep learning, stretching and growing.

You wake up in the same in same house, in the same bed, next to do the same person (highly recommended, if you are married). You get ready for work in the same way, eat the same breakfast and travel the same route to get to work each day. You order the same coffee from the same barista. You have the same greetings and the same meetings with the same people in the same rooms, and you talk about the same things. You order the same lunch from the same location. You finish the day in the same way, then stick it in reverse – travelling the same way to home with the same routines as soon as you walk in the door.

And then you freak out when there is a transformation program at work or massive change in your personal life.

One of the reasons why I struggled so much when my marriage broke down is I had been playing the Same Game for many years, and then when my life was tipped upside down my brain didn't know how to respond.

I see this every day in the corporate world. We talk about change and about AI and disruption and digitisation. But when big changes happen in the workforce, many people (especially those aged 40+) struggle, because while they have been waxing lyrical about change, they have done nothing to train their brains for change.

So here's a sixth high-performance strategy to mitigate against that:

Microdoses of change Training our brains to stay flexible and ready for daily challenges – as well as being open to radical change at times – enables us to make the changes necessary to be successful in both our personal and business lives.

Note: When you do find yourself stuck on a plateau, which invariably happens to everyone, it is vital to stimulate change and get off it as quickly as possible, before *this* becomes your new norm.

#### **QUIRKY PRE-PERFORMANCE SPORTING ROUTINES**

In his autobiography, Rafael Nadal explains his pre-match routine: 'Freezing cold water. I do this before every match. It's the point before the point of no return. Under the cold shower I enter a new space in which I feel my power and resilience grow. I'm a different man when I emerge. I'm activated. I'm in "the now", as sports psychologists describe a state of alert concentration in which the body moves by pure instinct, like a fish in a current. Nothing else exists but the battle ahead.'

Former Australian wicketkeeper Adam Gilchrist had specific preperformance routines. 'Gilly' would walk for over an hour on the morning of a Test match. 'Walking is an underestimated exercise. I do it most mornings and you can get a good sweat going.' Before a game of cricket the players do a generic warm-up consisting of an easy jog or a game of football, followed by stretching and mobility exercises. Then they do their own thing – batting, bowling, fielding. Just before play starts the coach would give a brief plan/pep talk. The first time I was with the Aussie team and John Buchanan did this, I could hear a loud whack, whack, whack from the back of the room. I looked over and Gilly was throwing a cricket ball really hard from one of his gloves to the other, getting what he calls a 'feel for the ball'. He'd then throw the ball to the coach (or to another member of support staff) who had to catch it. Then he was ready to play.

So there you have it. Our THINK goal is to build a mindset to better embrace the challenges of each day and find fulfilment in life – in other words, to flourish. The keys are developing a positive psychology by building a growth mindset, cultivating grit, being willing to strive by pushing through and/or taking on new challenges; and practising specific performance psychology tactics, including relaxation training, self-talk, imagery and visualisation, goal-setting and concentration.



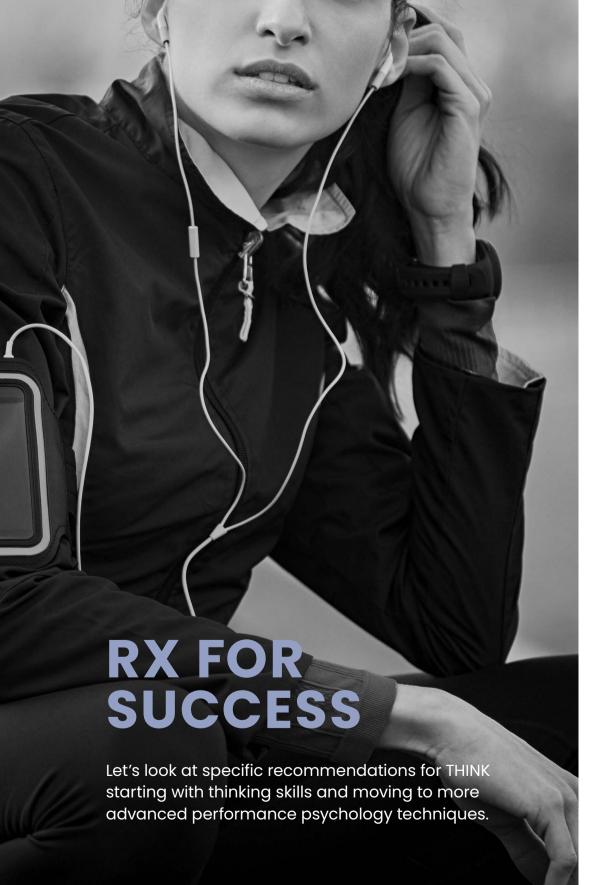
### THE FIELD GOAL THAT SANK A NATION

In the final of the 2003 Rugby Union World Cup, Jonny Wilkinson orchestrated a captivating moment of sporting theatre. With only seconds of extra-time left, he struck a field goal on his weaker right foot that sailed through the uprights and secured a World Cup win for England.

Was this a fluke, a flash-in-the-pan performance? Absolutely not. Jason Weber, who was the Wallabies' strength and conditioning coach at that time, told me that he used to watch Wilkinson in awe: the Englishman would come out at least 30 minutes before every other player in the pre-game warm up and practise kicking field goals, on both his left and right foot, from a range of positions around the ground. In high-pressure game situations, therefore, Wilkinson was effectively on autopilot. He also employed psychological skills in his training practice, so when the time came for him to perform, those abilities had been front-loaded in his brain.

Of the magical field goal, Wilkinson told *The Independent*, 'I knew I'd hit it in such a way that it wasn't going to be the most powerful kick, but it was going to be accurate. I knew from fairly early on it was going over. I actually got lost in that moment, I didn't know where I was. It felt like a surreal, dream-like situation. I had to ask "is this really happening?" <sup>29</sup>

That is high-class performance psychology in action.



### 1. CHANGING THE WAY YOU THINK

You really can change the way you think, and that starts with identifying Automatic Negative Thoughts (ANTs) and learning to reauthor them. Here's how to do it.

### Think about how you think

This is about increasing your awareness of your cognitive processes – the way you think. Using the table on page 253, write down your thoughts and feelings in different situations throughout the day. Note carefully the relationship between certain types of thoughts and feelings. At this stage, don't worry about changing anything. Right now, you're becoming aware of how you think in different situations.

### Identify unhelpful ANTs

When under pressure or in highly stressful situations, you might find you are thinking about your circumstance in negative and unhelpful ways saying, 'I can't do this! or 'Why does this always happen to me?' These are Automatic Negative Thoughts (ANTs).

ANTs make difficult situations worse, but it is possible to control them. Learning to identify unhelpful thoughts, and then

#### **AUTOMATIC NEGATIVE THOUGHTS**

Here are some common patterns outlined by Dr Timothy Sharp:

- Over-generalising Ollie. "I forgot to do that report on time. I never manage to do things right."
- Filtering Freddy. "My boss said most of the submission was great, but there were a number of mistakes so she must think I'm hopeless."
- Black and White Bob. "I won't be able to get all of this done, so I may as well not start it at all."
- Personalising Paula. "John's in a terrible mood. It must've been something I did."
- Charlie Catastrophiser. "What if I haven't turned the iron off and the house burns down?"
- Emotional Eddie. "I feel hopeless; therefore my situation must be hopeless."
- Mind-reading Murray. "I can tell he hates my shirt."
- Fortune-telling Francis. "This relationship is sure to fail."
- 'Shoulda' Sheree. "People should be nice to me all the time."
- Magnification Mary/Minimisation Martha. "He noticed I spilled something on my shirt. I know he said he'll go out with me again, but I bet he doesn't call."

to challenge and change them, can significantly reduce negative emotions – whether or not you've managed to get yourself out of the situation that caused them. It's about having more cognitive flexibility.

### Challenge your ANTs

Thoughts are not necessarily facts; just because you think something doesn't make it true. If your ANTs are causing unnecessary distress, you need to learn how to challenge or change them. Next time you hear the little voice in your head saying something negative, ask a few questions: 'Is that true?' 'Is that a helpful thought?' 'Is it really that bad?' One of my favourite questions is: 'What is the evidence for this?' Asking yourself: 'Am I just being governed by my emotions?' will help you gain perspective too.

# Replace ANTs with POTs (positive optimistic thoughts)

Once you've begun the process of identifying and challenging negative thoughts, it is time to start planting more positive thoughts. That doesn't mean they have to be unrealistic – in fact, they shouldn't be. Here are some tips to help you do this:

- Actively focus on all the good things in your life.
- Look for good things to add to your life.
- Start seeing difficult situations as opportunities to learn.
- $\bullet \hspace{0.4cm}$  Tell yourself that good things will happen in the future.

Each of these steps is a separate skill, and mastery of them requires practice, time and perseverance. Becoming a more positive thinker will not happen overnight, but it will happen if you persevere.



Thought	Type of ANT	Why do I think like this?	Have I always thought like this?	Is there another way?

### 2. USE A THOUGHT JOURNAL

The act of putting pen to paper (or fingers to keypad) helps us clarify our thoughts and feelings, provides an opportunity for positive self-talk, and offers tangible evidence that moments which seem insignificant really do matter.

Research shows regular journal writing is a proven way to support people to better understand their thoughts, feelings and behaviours. In a psychological context, it helps you move from self-awareness (where you know the information) to self-regulation (where you act and apply the information to your life).<sup>30</sup>

### 3. PRACTISE GRATITUDE

Here are some exercises that will help you build gratitude into your life.

- Write down three things you are grateful for each day.
   (Try to think of new things each day.)
- Savour a positive moment each day and draw awareness to your senses – whatever you can see, feel, smell, hear and taste.
- Write a quick SMS, note or email to someone showing appreciation for them. It might be to a friend, your partner, a parent, child or colleague.
- Write for two minutes each day describing a positive experience you had in the past 24 hours.
- It's important not to shy away from the bad, as

- remembering tough times can help you find gratitude and meaning in the present.
- Keep it up! Even if the only thing you feel grateful for on any particular day is your toes, make time to appreciate them. Practise smiling and showing your appreciation to others. By practising gratefulness, we trigger it in ourselves.

### 4. DEVELOP A GROWTH MINDSET

Building a growth mindset is a key factor in staying open to new ideas, challenges and personal development. How do we do it? Well, it's all about attitude and persistence.

#### **DAILY GRATITUDE RITUAL**

When I sit down with my children for the evening meal (with no mobile phones and the TV turned off), we do a gratitude exercise. This began three years ago when I started asking Archer and Miki what the best part of their day was. Then one night, Archer, who was just four years old, said, 'Dad, can we also do the not-best part of the day? Because that makes the best parts even better.'

I love this idea! Ever since, we've talked about the best and the not-best parts of our day. I also do this gratitude activity with friends and other family members when we have dinner together, and I know a few CEOs of large organisations who now do it every night with their families.

- Seek challenges and be open to constant learning: Learning to embrace challenges and not become overwhelmed by them is critical for managing a busy work schedule and having the energy to engage fully in life. The sense of achievement. we feel when we persevere and overcome challenges builds confidence and creates momentum in all parts of our lives. Being curious and interested in learning new things keeps our brains flexible, adaptable and open to new ideas.
- Stay passionate and persist when obstacles appear: Choose something you love. People

who are not as naturally talented as others can make up for this with passion. Passion drives the pursuit of excellence. Being knocked back can be testing, which is one reason why focusing on the MatchFit levers

- that keep you energised (specifically FUEL, MOVE, RECHARGE and PLAY) is so vital: it gives you the capacity to dig deep and keep striving. When we view setbacks as being temporary, this can motivate and strengthen us.
- Focus on mastery and effort: When I worked with national cricket coach John Buchanan, every day he used to remind his players to 'control the controllables'. John didn't order the bowlers to go out and bag five wickets in every innings or tell the batsmen he expected centuries. Instead, he told the bowlers to keep the ball just outside the off stump, and the batsmen to start their innings by rotating the strike and building momentum. What he was saying was: focus on the process of doing the fundamentals well on a consistent basis, and the results would take care of themselves.
- Be open to constructive feedback: Rather than taking criticism personally, learn to receive the message and use it to help you learn, develop your skills and improve. Rather than use the word 'failure', use the word 'learning' instead. Being able to take the positives from feedback increases your ability to perform at a higher level the next time. When you receive critical feedback, ask yourself: is the source of this feedback credible? And: is what they are saying correct? Try to shut off your emotional reaction (or at least recognise it and try to detach yourself from it) so that you can dispassionately judge whether the criticism is fair. If you're struggling with this step, ask someone whose judgement you trust what their honest opinion is.
- Celebrate the success of other people: Live in the world of mitfruede, not schadenfreude. To make the climb to success an enjoyable one, we cannot live jealous and intimidated by others. We must commit to being genuinely happy for the success others have achieved. Remember, you reap what you sow.

### 5. PRACTISE POSITIVE SELF-TALK

High performers learn that nerves are a normal, healthy part of the performance cycle. I help my clients anticipate what to do if they find their nerves shift from helping them prepare to putting them into an over-aroused state.

One helpful strategy is to disconnect from the inner voice and have some fun by saying things like, 'Hello, little voice! I've been waiting for you to come back ... it's been a while!' Rather than becoming consumed by the negativity and internal chatter, then using a combination of relaxation skills, imagery and affirmations or cues to stay calm and gain control.

Trigger words or 'cues' are can be used for motivational and instructional purposes. Serena Williams has been known to have key messages at hand courtside, with statements like 'Hit in front' or 'Stay low'. Nine-time Olympic gold medal-winning athlete Carl Lewis says, 'My thoughts before a big race are usually pretty simple. I tell myself: Get out of the blocks, run your race, stay relaxed. If you run your race, you'll win ... channel your energy. Focus.'

### 6. PRE-PERFORMANCE ROUTINES

The first step in any performance routine is to minimise distraction, and one of the biggest villains here is technology. Before any major/important performance:

- Turn off your mobile phone, laptop or tablet, or switch them to silent mode. Aim not to be distracted by any external messages as you prepare.
- Avoid making phone calls prior to key events, especially ones that could cause you stress or create tension.
- Ideally the night or morning before, prepare all your equipment, resources or tools in advance so you are not racing around at the last minute, wasting energy and creating unnecessary stress. If you manage your energy expenditure you will be in a state that allows you to channel positive stress towards the performance ahead.

Now let's consider some specific pre-performance routines you can implement into your day. Sports psychologists divide pre-performance routines into two categories:

- Pre-event routines, or the physical warm-up, involving 'preferred sequences of action in the run up to important events'.<sup>31</sup> Examples would include a dancer doing stretching and mobility exercises before going on stage, or a rugby union player performing kicking drills in the pre-game warm up. These routines tend to focus on physiology and warming up the body.
- Pre-performance routines for the mind that include 'sequences of thoughts that performers adhere to immediately prior to skill execution'. This might include self-talk and affirmations like, 'I have been here before; I know how to manage my nerves and stay calm' or 'Nerves are a sign my body and brain are getting ready. It is now time to breathe, relax and enjoy the moment'.

One of my favourite pre-performance affirmations comes from legendary All Blacks coach Graham Henry, who reminded his players that 'pressure is a privilege. You've earned it. Enjoy'.

It's important to note that self-talk and pre-performance routines are specific to each person. For tailored performance psychology strategies, work with a high-performance psychologist or coach.

### 7. DAILY MICRO-DOSES OF CHANGE

Think of micro-doses of change as mental fresheners that help our neurons to fire along new pathways and our brain to stay open to change.

Our brain is an energy efficient machine. It likes to do things automatically, even when it doesn't serve us, because it is the energy-efficient way; based on our past experiences and our habits, the information is logged and we go about our days – brushing our teeth, eating breakfast, driving to work, going to

meetings – without having to think too hard. In doing this, we reinforce the same neural connections day after day.

Try doing one or two things differently every day, including:

- Walk or drive a different way to work
- Get off the bus or train at a different stop in the morning
- Take a different route on your run or cycle, or try a new class at the gym
- Say yes to something that you would automatically say
  no to
- Order a different coffee or tea in a different place
- Sit down to dinner with your partner and talk, instead of sitting in front of the telly.

When we're tired or stressed or under pressure, the easiest thing to do is to take the path we know, even if it's a much longer or ultimately more inefficient way around. Taking the road less travelled – metaphorically, literally and neurally – takes effort and energy. This explains a lot about why people are so uncomfortable with change: it is uncomfortable for our brains. Stop playing the Same Game!

### PERFORMANCE PSYCHOLOGY IN ACTION

I was taking my make-up off (this will make more sense soon) and received a text message from a CEO I had previously coached. 'Andrew, would like to talk. Do you have capacity to work with one of my team on his presentation skills?'

I was in the ABC studios in Melbourne and had just wrapped up my regular segment on *News Breakfast*, and this had prompted my former coaching client to reach out. I called him on my walk back to the hotel and learned his CFO was receiving terrible feedback from analysts and investors about his presentation style during company briefings. I agreed to meet with the CFO the following week to see whether he was open to my support. I asked the CEO to brief him on our conversation and be explicit about why I would be meeting with him.

Our first discussion didn't begin well. I received a frosty reception, arms folded, mono-syllabic answers and a general attitude that said: *Why do I need to work on my presentation skills? I'm a smart guy, and it's all about the finance.* I tried a conciliatory, coaching-based approach for 15 minutes and was getting nowhere, so I reverted to a more in-your-face methodology.

'Okay,' I said, 'I can see you really don't want to do this, and if I was in your shoes I'd probably feel the same way. But let's strip out the emotion and look purely at the facts.

'Fact: your boss, the CEO, spoke to me because you've had very bad feedback from numerous sources about your presentation style, and this is causing noise the company doesn't need. And I know you have been told about this.

'Fact: as a CFO, market updates are a very important part of your job; and from where I sit, if you don't improve, that's going to put considerable strain on your job.

'Now, I can support you with the skills you need, and I can train you to manage your presentation style, but if you're not open to it, I don't want to take you on as a client.'

When I put on my 'executive coach' hat, I sometimes throw what I've been trained in coaching psychology out the window and take a much more direct approach. The risk is that it can go wrong. The CFO sat silently for what felt like five long minutes, then he looked at me and said, 'All right. I appreciate you being so transparent. I hadn't pieced it together like that. When do we start?'

'Now,' I said. 'Tell me about your routine before you present a market update.'

'What do you mean? I just wake up, have a shower and get ready, grab a coffee and drive into the city. I might grab another coffee and a piece of toast if I have time, and then I take another look at the PowerPoint slides and make sure I have a firm grasp of the numbers. Then I stand up and go through the slide deck.'

I had a few more questions for him.

'Are you a morning person?'

'Nope, hate them.'

'What time do you go to bed?'

'Around 11.30 pm. More likely midnight.'

'What do you listen to when you're in the car?'

'Normally classical music – I don't like all of the commercial talkback rubbish.'

'Do you do anything of a morning, apart from coffee, to wake yourself up?'

To this I just got a blank stare.

I wanted to jump right in to fix-mode, but our time was up. 'I'm going to put together what I call a pre-performance routine to get your body and brain in the best possible state before your next update. I'll take you through that the next time we meet.'

'But what about the speaking skills?' he asked.

'Oh, we'll spend some time on that. But I think your main problem is that your body clock is out of sync and you aren't preparing yourself in the right way for what is arguably the most important Performance Moment of your job. This will be the focus of our next session.'

The following week I was greeted by a much more enthusiastic and agreeable client. 'Andrew,' he began, 'I've been thinking about what you said, and I agree. I really don't like presenting of a morning – I'm in a bad mood the moment I wake up on the day of an early presentation.'

'Good to see you've been thinking about this. Let's start by looking at the routine I've drafted for you. It's based on you presenting at 8.30 am.'

### Night before

- Limit alcohol to only one drink (or none at all).
- Get to bed by 10.30 pm (prepare to go to bed from 10.00 pm; no technology after then).

### Morning

- Wake up at 6.30 am.
- Glass of water and lemon, a brisk 10–15-minute walk (listening to upbeat music, NOT classical), ideally outside.
- Shower, change, protein smoothie (takes five minutes to make).

- 7.30 am: In the car driving to city. Again, upbeat music. No classical (that's for the drive home).
- 8 am: Arrive at venue and grab a coffee and review slides; think about key messages. Five minutes doing deep-breathing exercises and reviewing cue words (we'll do a separate session on that next week).
- 8.30 am: Presentation time!

'Do you have any questions,' I asked.

'Not really,' he said. 'I'd prefer to not have to get up earlier than normal, but your process makes sense. I've never thought about it like this. Actually, I do have a question. What should I listen to on the radio?'

'Triple M Rock,' I replied straightaway.

'I don't like Triple M,' he replied.

'I don't care. Your audience doesn't like your update when you listen to classical music.'

We shared a laugh before ending the session.

A few months later I received a follow-up message from the CEO. 'Andrew, today was market update. I don't know what you've done, but the CFO was a different person. He had real presence and spoke to the audience, not the slides.'

What I did was coach my client to follow a structured preperformance routine to orchestrate his body and brain to work together for when it really matters.



## THINK TAKEOUT POINTS

Using these techniques will help you to engage fully with your Performance Moments, meet challenges with agility and grace, and flourish in your professional and personal life.

- People with a growth mindset believe that most things can be improved with education and/or effort.
- 2. A growth mindset helps us to develop grit, which is the combination of passion and perseverance in the pursuit of meaningful goals.
- 3. Positive thinking is a skill that helps us focus on opportunities, and on our strengths and good qualities. When we believe things will work well, we take action to ensure that it does.
- 4. Like positive thinking, gratitude is a choice we can make, even in our darkest moments, to acknowledge that good also exists. It is a powerful practice that boosts the feel-good neurotransmitters dopamine and serotonin and the hormone oxytocin.
- 5. Striving for lasting fulfilment over happiness will provide a greater sense of purpose and contribute to our overall health and wellbeing.
- 6. The biggest differentiator between a great performer and an okay performer is the ability to manage stress and handle change.

Harnessing the techniques and skills outlined in this chapter will set you up to perform and feel your best.





Play is defined as an 'activity performed for pleasure'. Components of playfulness include curiosity, imagination, control, physical activity, a sense of humour, pleasure, spontaneity and release.¹ Regular doses of recreational play generate optimism, are a gateway to vitality, enhance relationships and boost learning. Sadly, as adults, many of us have lost the ability to play or be playful.

I love watching my children when they're totally absorbed in play. A cardboard box can be a cubby house, a police station, a spaceship. Indeed, for the first five years of my children's lives I was tempted to give them boxes as birthday and Christmas gifts, as they used these more than the toys that came inside.

Kids have 'playdates', 'play lunch' and 'playtime', they play music and sport, they use playdough and watch *Play School* on TV. In contrast, adults have catch-ups or meetings, morning tea; we have stress balls; listen to Spotify, and watch *Suits* and *The Office* and sport on widescreen TV. Why can't grownups inject some play and fun into our lives too? Research (and personal experience) tells us that we should.

In this chapter we'll look at the importance of play for physical and psychological wellbeing. Play is a MatchFit lever that links many of the others together – play incorporates physical movement and mental stimulation, it promotes psychological detachment from the stresses of the workplace, and it encourages friendship and community, curiosity and creativity. Play even helps us live longer. Best of all, we feel great while we do it. After learning about the key benefits of play, we'll explore MatchFit strategies that you can incorporate into your program.

### **ADULTS AND PLAY**

In an article for the *Washington Post*, Jennifer Wallace described how soccer icon David Beckham likes to play with Lego to control stress. TV host Ellen DeGeneres enjoys pranking her guests. Former UK prime minister David Cameron likes to decompress at the end of a long day by playing the video game Angry Birds. Play isn't just about goofing off; it can also be an important means

of reducing stress and contributing to overall wellbeing.<sup>2</sup>

Dorris Kearns writes about Abraham Lincoln and his love of play. 'I've learned over the years that this sphere requires a commitment of time and energy – enough so that a hobby, a sport, a love of music, or art, or literature, or any form of recreation, can provide true pleasure, relaxation and replenishment. So deep was Abraham Lincoln's love of Shakespeare, that he made time to spend more than a hundred nights in the theatre, even during those dark days of the war. An even more important form of relaxation for President Lincoln was humour and feeling out what hilarious parts of life can produce as a sidelight to the sadness.'

Stuart Brown, a psychiatrist and founder of the National

Institute of Play in the United States, has found that 'the simple act of doing something you enjoy is not only pleasurable, it is also a profound biological process that makes you smarter, more creative and more innovative'.

When did we stop being childlike and shift from seeing play as an important part of our lives? And when did we forget that running, jumping, hopping and skipping are fun, and decide that physical activity and movement is a chore? Life without play is monochrome grey – it's play that adds the splashes of colour.

The value of play is becoming increasingly recognised, by both researchers and policy, as evolving evidence demonstrates the relationship with intellectual achievement and

#### **PLAY DEPRIVATION**

I'm sure you've heard of sleep deprivation and the challenges it brings, which include fatigue, poor memory, reduced creativity, poor decision-making, lack of recovery and hormone imbalance, increased visceral fat, reduced growth hormone and increased levels of irritability. But did you realise we can also suffer from play deprivation – and that many of the outcomes are similar?

According to Stuart Brown, 'play is a basic human need as essential to our wellbeing as sleep, so when we're low on play, our minds and bodies notice'. Too little play can lead to depression, feelings of hostility, aggression, and the loss of 'the things that make us human beings'. Adults who have forgotten how to play become 'rigid, narrow in their thinking, brittle in their response to stress, and much less open to handling the curve balls life throws us'.

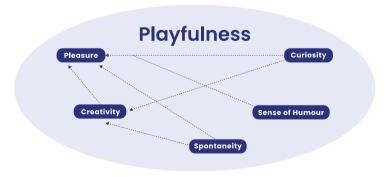
There are physical symptoms too. Dr Joe Frost argues that a lack of play is partly a contributor to the modern obesity epidemic, as we have less unstructured free time to play and be in nature. Separate research has found that play deprivation results in a lack of sensory stimulation and a consequent loss of electrical brain activity.

emotional wellbeing.<sup>4</sup> Experts in the psychology of play suggest that adults grow to be too critical and abandon most of their play activities.<sup>5</sup> Interestingly, studies have shown that the component of play in adults is similar to children, although adults with marked playfulness distinguish themselves by their ability to see the positive side of things, don't take themselves too seriously and have an open mind. Adults with a playful mind are more inclined to embrace challenges, are more likely to find original and novel solutions to problems and better able to deal with failure and setback.<sup>6</sup>

Playfulness at work has been shown to alleviate boredom, release tensions, prevent aggressive behaviour, increase group cohesion to improve work quality and overall performance and decrease anxiety toward new technologies. Playfulness facilitates healing, improves morale, and increases motivation. So why have so many of us abandoned something that we once engaged in joyfully as kids?

### THE SCIENCE OF PLAY

The following model presents characteristics associated with play. Playfulness is an internal predisposition characterised by creativity, curiosity, a sense of humour, spontaneity and resulting pleasure. It enables adults to distance themselves from others, from situations and from conventions and adopt an open mind. Play helps to find original solutions to problems, to confront difficulties and to accept our limitations.



Components of playfulness in adults and their relationships<sup>12</sup>

### Creativity

Many things we find interesting in life are associated with creativity; like language, music, technology and acting. When we are being creative, we feel alive and fulfilled. Positive psychologist Mihaly Csikszentmihalyi suggests 'of all human activities, creativity comes closest to providing the fulfilment we all hope to get in our lives', and proposes that incorporating a few creative practices into your day is key to achieving full creative potential.<sup>13</sup>

Creative people tend to:

- Have an ability to adapt to almost any situation.
- Make do with whatever is at hand to reach their goals.
- · Have an ability to concentrate well.
- Be good at combining playfulness and discipline.
- Be able to alternate between imagination and fantasy.
- Be realistic dreamers.
- Be passionate, yet objective.
- Be sensitive and open to experience.
- Be willing to take risks.
- Be more energetic, happy and joyful.<sup>14</sup>

### Spontaneity

Dr Robert Puff, an internationally recognised organisational and clinical psychologist, and author of *Finding Our Happiness Flow*, argues that happiness and peace are both spontaneous and effortless. Dr Puff highlights how young children tend to be naturallyhappyandlaughspontaneouslywhentheyseesomething funny, admire something beautiful or explore something new. This spontaneous happiness changes from internal to external as we become adults, as we develop expectations that certain things must happen in order for us to be happy.<sup>15</sup> In other words, we start taking ourselves too seriously.

#### Humour

According to research by eHarmony, married couples who shared a similar style of humour tend to have happier and more successful relationships in their first few years of marriage.

When the company researched humour further, they identified nine types:

- *Slapstick*: Involves physicality, like facial expressions (considered the funniest).
- Self-depreciating: Making oneself the butt of the joke.
- *Surreal:* Just plain silly.
- *Improvisational:* Jokes made up on the spot.
- Wit/wordplay: Twisting language such as creating puns.
- Topical: Based on current trends.
- Observational: Poking fun at everyday life.
- Bodily: Toilet humour (kids' favourite!).
- Dark: Considered the least funny. 16

### Curiosity

Curiosity is the desire to learn about and understand things around us. It's essential to our development and influences our decision-making. Curiosity enhances understanding, which is consistent with the theory that its primary function is to facilitate learning. Although children are curious learners by nature, usually during play, today's easy access to information, music, sport, books and magazines means children are becoming much more curious than we could ever have imagined. Interestingly, those of average intelligence who are curious and conscientious do just as well in school as those thought to have greater intelligence. Fear is considered one of the antidotes to curiosity, as fear can stop us moving forward, exploring and acting to achieve.

Five tips for becoming more curious include:

- Find what fascinates you.
- Explore and purposely try things that you don't know how to do.
- $\bullet \quad \text{Be inquisitive, ask questions.} \\$
- Engage people in your enquiry; don't rely on Google.
- Don't allow boredom to become you. 20

#### **Pleasure**

Creativity, spontaneity, humour and curiosity all contribute towards feelings of pleasure, which is described as the affective positivity of joy, gladness, liking and enjoyment.<sup>21</sup> Some psychologists who study pleasure classify it as either fundamental (for example, food, sexual, or pleasures derived from our senses) and higher-order pleasure (for example, artistic, musical, monetary, altruistic). Even though neuroscientists suggest pleasure derived from both fundamental and higher order pleasures have overlapping brain mechanisms, 22 fundamental pleasures tend to give us give us the more transient feelings of happiness. While fundamental pleasures can be addictive for some people, for most they continue to provide a sense of joy. The inability to experience pleasure is called anhedonia, and is recognised as a hallmark symptom of depression, whereas pleasure has been associated with greater sense of subjective and objective wellbeing.23

### **REALLY ADULT PLAY**

One area of play that can benefit all areas of our lives is sex. Sex activates our pleasure response and mediates our stress response, but it can also boost brain performance. An Oxford University study exploring associations between sexual activity and cognitive function in older age found that having sex more often was linked with 'consistently higher' scores on a variety of cognitive function tests.<sup>24</sup> The researchers suggested two possible reasons for this. The first was the neuroprotective properties of increased social, physical and mental engagement. The second was that the hormones produced through sex (dopamine, oxytocin and vasopressin) work to improve performance.

If that's not enough to convince you that a healthy sex life is important, a separate study found that employees who regularly played between the sheets reported greater job satisfaction and engagement at the office. 'Making a more intentional effort to maintain a healthy sex life should be considered an issue of human sustainability, and as a result, a potential career advantage,' said

lead researcher Keith Leavitt.<sup>25</sup> Hallelujah! I've lost count of the times that, after I mention this in one of my presentations, a participant has asked me to send them this research.

On a recent overseas flight I listened to a podcast discussion between Dave Asprey and psychotherapist and author Mike Dow. They were discussing forms of adult play when Dow explained that sex is the way that adults play, and that it is 'really fantastic for the brain', making us happier and more productive. But it's more than that, Dow continued. Play is essential for human beings.

For children, play helps the brain develop. Interestingly, theta waves (the slower waves associated with daydreaming or a creative, 'free flow' state) are the dominant waves for children. For adults, the dominant waves are generally the faster beta waves (associated with states of arousal and being actively engaged) and alpha waves (typically when we're in a reflective or restful state).<sup>27</sup>

'A lot of adults go, "Oh well, I'm an adult now so I don't need to play anymore." When we lose our playfulness, that space and time to play . . . human beings get very anxious. They lose their sense of creativity,' Dow explained. Play through sex is a way we can tap into those theta, dreamy states again. This adult form of expression helps explain the stories we hear about the high-powered solicitor or business executive 'playing' with a dominatrix. Being spanked and treated like a baby is their way of forgoing control, and (whether you approve of it or not) adds variety, freedom and play to an otherwise very structured routine. 'We don't necessarily need extreme versions of sex, but if we can find ways to play in our sex lives, we will all be happier,' Dow said. 'Injecting a little bit of playfulness . . . finding a way you don't lose that inner joy, is absolutely vital.'

### THE BENEFITS OF PLAY

### Play and learning

Natural play is one of the greatest developers of the brain that we know. We spend so much time at work focused on metrics and

#### PLAYFULNESS AND ATTRACTION

Being playful makes you more attractive, according to a study from Pennsylvania State University. Researchers asked 250 students to rate 16 characteristics they looked for in a long-term partner. Among males, a 'sense of humour' was top of the list; it was second among females. 'Fun-loving' came in third for both males and females and being 'playful' came in fourth place for women and fifth for men.<sup>28</sup>

Unlike many other animal species, adult humans continue to engage in playful activities well into their senior years, and the Penn State researchers believe playfulness may have evolved as a signal of positive qualities to a potential long-term mate. 'For men, playfulness may send out non-aggressive vibes to women, while a woman's playfulness may indicate her youthfulness and fertility.'

Play is an important social skill for developing friendships when we're young and maintaining our ability to be playful makes us attractive not only to prospective partners, but to prospective friends in adulthood too. As Plato said, 'You can discover more about a person in an hour of play than in a year of conversation.'

spreadsheets and sales targets and KPIs and KRAs (and all the rest) that we sometimes forget to laugh, to play, to have fun.

Educator Glenn Capelli has written about the importance of staying forever young. His favourite word, he notes, is *neoteny*. It has the scientific/medical meaning of retaining certain juvenile characteristics into adulthood, but he's more interested in what it can offer us in a positive way. Here's his definition: 'Neoteny is ageing, yet retaining the childlike behaviour traits of spontaneity, creativity, exploration and living life with a sense of wonder. What we add, as we age, is wisdom.'

He goes on to say, 'Neoteny is not just for a private reflective moment or for times of holiday and leisure. Neoteny is for our everydayness. The neotenous corporate leader, the neotenous creative organisation, the neotenous school and classroom – add colour and fun and dance and bounce and humour and a possibility mindset. Mix games and play and contemplation and romance. Grow neoteny and prosper. Spread neoteny and grow.'29

I know from experience that a Glenn Capelli workshop creates a positive overload of your senses. He builds in music, drawing, colour, visual images, kinaesthetic learning and more. The first time I watched him present I had two immediate thoughts. The first was, 'Wow, this guy is amazing. I love the way he builds

laughter and play into his presenting.' The second was, 'Oh crap, why do I have to present after Glenn? This is just not fair!'

We've come a long way in Australian education: we have realised that strictness and rigidity (remember the cane?) do not create a productive learning environment. More Australians are gain-

#### **HURRIED CHILD SYNDROME**

Many children today are missing out on the learning styles people of earlier generations had - such as drawing, exploration, storytelling, play and discovery. In 1981 David Elkin came up with the term 'hurried child syndrome' to describe the way we are rushing kids into sophisticated behaviours.30 Advertising today is pushing kids to become older sooner, for instance. Kids are no longer being kids and are rushing through their formative developmental years. Research shows that almost half of Aussie schoolkids feel stressed, which decreases their academic performance and increases their risk of burnout.31

The attitude in Finland, where students regularly rank first in global test scores, is that children learn best through play. Finnish schools have short class hours and little homework, and students have 'a mandatory 15-minute outdoor free-play break every hour of every day', according to academic William Doyle. 'Fresh air, nature and regular physical activity breaks are considered engines of learning.'32

ing a tertiary education than ever before, but we need to take the time to enjoy the process and spark curiosity and creativity – and hence learning, engagement and productivity – through play.

And most importantly, these are qualities we need to hold onto as we become adults.

### Play and fitness

I love to make fitness activities feel like play. At the beach, I'm always struck by how surfers run from the car park into the water. That is fitness play. There's something childlike in their excitement to catch their first wave of the day. I don't see people park their cars and run into their local fitness centre, shaking with anticipation as they think about lifting their

first rep, or pedalling their first revolution on a stationary bike.

For most people, fitness play involves a skill or activity you need to focus on to stay upright/engaged; often you're doing it in the great outdoors. Natural movements such as lifting, squatting, balancing, jumping, running, crawling, throwing and carrying are all actions we evolved to do without thinking of them as 'fitness'. My children and I recently 'played' in the snow together



MATCHFIT PIAY

for four days at Thredbo - we were all so excited (and nervous) as we raced to the chair lift for our first run of the day.

Consider dancing. In her book Why We Dance: A Philosophy of Bodily Becoming, Kimerer L. LaMothe argues that dance is an expression of creativity, of connection to each other, and of joy and sorrow, as well as being an exploration of our bodies.<sup>33</sup> Her point is that we don't move simply to be functional. We move also because we are human and need to express ourselves physically; we are social animals, and play is a key way in which we relate to one another.

Of course, many of these qualities are missing from our modern-day fitness culture. We work out in isolation and are more preoccupied with counting reps and snapping the perfect selfie than having any fun.

### Play and longevity

In an article in New Philosopher, journalist and former professional cricketer Ed Smith writes, 'I'm often struck how quickly athletes age after retiring. This isn't because they lose fitness (they keep going to the gym, especially if they're working in television). It's because they're missing opportunities for playfulness.'34 This echoed George Bernard Shaw, who many years earlier noted, 'We don't stop playing because we grow old, we grow old because we stop playing.'

Last year I shared a stage with Professor Lynda Gratton, author of The 100-Year Life: Living and Working in the Age of Longevity. Gratton and her co-author, Andrew Scott, Professor of Economics at London Business School, believe life expectancy will continue to rise by two to three years a decade, to the point where a baby born in a developed country today is likely to live beyond 100 years.

Gratton talks about the need to develop 'juvanescence', which she defines as 'the state of being youthful or the art of growing young'. I love this word! It's perfect for the many people in their 70s and 80s who are travelling the world, caravanning around Australia, trekking, walking, skiing and adventuring. In short, they're playing! There's no doubt an attitude that seeks out and

opportunities embraces in this way is great for longevity.

### Play and healing

Is laughter really the best medicine? Sometimes it's the obvious things that ease the burden and relieve the stress - simple things like a good, hearty laugh can truly be 'the best medicine'.

Interestingly, the main benefit of laughter is not jokes.

'Laughter is not primarily about humour,' says Robert

#### THE BENEFITS OF LAUGHTER

Having a sense of humour as well as a playful disposition can bring a multitude of benefits:

- Laughter can improve health and has been linked to a stronger immune system for those who use humour to cope with stress.
- Laughter enhances your intake of oxygen-rich air, stimulates your heart, lungs and muscles, and increases the endorphins that are released by your brain.
- Laughter can reduce pain and relieve tension.
- Being playful people can improve your grades in school.
- Reliving funny moments can strengthen the relationship between two people.37

Provine, a neuroscientist who spent eight years observing laughter 'with the investigative spirit of [a] visiting alien'. Instead, as he wrote in his subsequent book, Laughter: A Scientific Investigation, it is 'about social relationships'. 35 We are 30 times more likely to laugh with others than we are on our own, and women are more likely to laugh than men.<sup>36</sup>

Music, too, has a powerful effect on our bodies and minds. Music is something we feel and something we use to enhance virtually every significant moment in our lives. The harmony of Pachelbel's Canon as the bride walks down the aisle; the resonance of the violins in Adagio for Strings at the funeral of a loved one; the reverberating bass that finds its beat in our feet and the energy in our limbs when we dance or run; the escalating intensity of sound that psyches us up before a competition and the gentle rhythms that soothe our babies to sleep. Music can evoke awe, euphoria and sadness. It can comfort and energise, even connect with us on a primordial level.

Playing a musical instrument triggers changes in the cortex of the brain, an area responsible for meaningful perceptual experience of the world and effective communication. In one



study of twins, controlling for sex, education and physical activity, playing a musical instrument was associated with 64% less likelihood of dementia and cognitive impairment.<sup>38</sup>

In a pilot study of 25 students, playing music resulted in lower morning blood pressure and heart rate. It depends what kind of music you play, though, because other studies have shown that playing music can increase the heart rate to similar levels as moderate exercise, with increases of up to 85% of maximal heart rate. $^{39}$ 

And the best bit about music may be that even though it has many health benefits the only reason we need to play or listen to music is simply because it makes us happy.

# 1. PLAY AND FITNESS

One of the most important factors to ensure physical activity becomes a regular part of your life is to make it fun. I'm amazed by how many conversations I've had over the years that go something like this:

*Me:* 'So, what type of physical activity are you doing right now?' *Client:* 'I was going to the gym earlier this year but work got busy and then I started travelling a lot. But I also found it hard to keep turning up to the gym three times a week.'

Me: 'Um, do you actually like going to the gym?'

Client: 'Hell no! Can't stand it – I hate it. In fact I have no idea how you fitness freaks keep doing it all the time. I disliked it so much that all I needed was the smallest excuse to not go.'

*Me:* 'Okay, at least you're being honest. But why would you go to the gym if you hate it so much?'

Client: 'What other options do I have? I just thought that if I kept going it would eventually turn into something I liked.'

*Me:* 'That can happen, but for most of us the secret is doing something you *already* enjoy, at least a little bit.'

Client: 'You mean I don't have to go to gym to get fit? That's great!'
Maybe this sounds familiar. I worked in and even owned gyms
for a number of years, and I still go to the gym two to three times a

week. But I'd much prefer to cycle outdoors and grab a coffee with a group of mates – talking about how good we use to be, of course! Or slice up fresh snow first thing of a morning. Or take my SUP out onto a beautiful canal. Or swim in the ocean, or go to the oval and kick a football, or head to the park with my children. The point is to make your fitness training fun – you get a good physical workout, plus you get all the psychological and social benefits of play.

The most important thing is to do something you enjoy.

### TIPS FOR BROADENING YOUR PLAY-BASED ACTIVITIES

If you're having trouble thinking of ideas, ask yourself the following questions:

- When did you last engage in play, and how did it make you feel?
- What games and sports do you like watching?
- · When did you last feel the freedom to do and be as you choose?
- If you have children or nieces/nephews, what outdoor activities do they enjoy? What can you learn from watching them?

### 2. PLAY AND MUSIC

It is the ability of music to transport us and induce certain states that has given rise to 'sound healing'.<sup>40</sup> Sounds a bit hippie dippy? There's actually solid science behind it.

Using the right music – about 60 bpm – can influence the brainwave state we're in, dropping us from hyper alert and vigilant to the calmer alpha state, which has been found to boost creativity and reduce depression, or the even slower theta state, which is linked with stress and anxiety reduction as well as healing and growth.<sup>41</sup>

In his book *How to Be Well*, Dr Frank Lipman says he often includes music in 'healing protocols' for his patients. 'Research continues to prove that music has the capacity to be so much more than a pleasant addition to any given moment,' Lipman writes.<sup>42</sup>

He suggests these five ways to heal through sound:

 Download the music of a sound healer. Lipman recommends Jonathan Goldman – his favourite album is called *Frequencies*.

- Attend a sound bath or sound meditation where
  practitioners create a soundscape tuned to certain
  frequencies, while attendees either meditate or recline
  with their eyes closed.
- Join a drumming circle. It's fun, plus it is used to treat trauma and stress, and it energises a tired nervous system while helping to relieve depression and anxiety.
- Listen to the sounds of nature. There's a reason why masseurs often use birdsong, crickets, and sounds of the ocean or rainforest during treatments: it invokes calm.
- Sing. 'An Ayurvedic healer once told me that the most powerful tool for healing is singing,' Lipman writes. 'When you lift your voice, it raises your spirits and when you feel tired, powerless or disenfranchised, the sound of your own voice ringing out reminds you of your agency and the innate ability to project yourself into the world. You don't need to get too technical or worry about the science every day just listen to music that you enjoy for 5 to 10 minutes.'

# 3. PLAY AND LAUGHTER

If you needed more convincing about the serious impact of laughter, look at Patch Adams, the famous clown doctor played by Robin Williams in the eponymous film. Patch used play, silliness and creativity for a serious mission: to promote health and healing among the sick and traumatised.

Forty-five years ago he created the Gesundheit project – a humanitarian clowning mission that has seen 'clowns' visit orphanages, war zones, refugee camps and natural disaster sites. 43 'The goal of this work is the improvement of the health of individuals and communities in crisis from sickness, war, poverty and injustice.' By helping people to smile, clown doctors like Patch help create lightness amid the heaviness of difficult times, facilitate emotional healing and empowerment and a much-needed distraction.

The power of laughter cannot be underestimated, and it's

something we can all engage in more. Laughter stimulates our organs by increasing our intake of oxygen; it activates a flood of feel-good endorphins in our brains and downregulates our stress response; it relaxes our bodies physically; improves our mood and ability to cope with stress and strengthens our immune system.<sup>44</sup>

So how do we build more laughter into our lives?

- Watch more comedies on telly, on YouTube, at the movies, live at a comedy club.
- Read more funny books. Here are a few to get you started: Love in a Cold Climate by Nancy Mitford; Naked by David Sedaris; I'm Judging You by Luvvie Ajayi; Delete at Your Peril by Bob Servant; What I'd Say to the Martians: And Other Veiled Threats by Jack Handey.
- Try a laughter class.
- Listen to a funny podcast: forget self-betterment for a moment and enjoy entertainment for entertainment's sake. Try: My Dad Wrote a Porno; Keep It; Babysitters Club Club; Judge John Hodgman; Lovett or Leave It.
- Pay attention to your kids; be present with them and learn, laugh, play.
- Be willing to laugh more. Anticipating laughter soothes stress and makes us more likely to laugh. 45
- Give a good dad joke a shot:
  - Why did the man name his dogs Rolex and Timex? *Because they were watch dogs.*
  - How do you make an octopus laugh? With ten-tickles.
  - Why don't crabs give to charity? Because they're shellfish.
  - I sold my vacuum cleaner it was just gathering dust.
- Give yourself permission to be ridiculous dance, skip, sing, listen to music, make something creative, take yourself less seriously.
- Spend time with your pets; like kids, they have a beautiful playful disposition.

# 4. PLAY AND FRIENDSHIP

How can you start building more fun and joy into your life with your partner/significant other, family, colleagues and friends? This might sound like an odd question for serious grown-ups, but it's time to adopt a child-like disposition. Suggestions include:

PIAY

- Get out of your comfort zone (stop playing the Same Game) when you catch up with friends and going to the same coffee shops or restaurants and having the same meals and engaging in the conversations. Instead, try going to an amusement park, water slide, the ocean, book a cooking class or drama course.
- Go to a comedy club or watch a humorous TV show or movie together.
- Engage in fitness play (ideally outdoors) with friends and family.

#### **GAMING AND YOUR BRAIN**

There has been much research showing the adverse effects of too much time playing video games and staring at screens (including social isolation, mood swings, addiction and a higher incidence of depression). However, like most things in life, it appears that in moderation (five hours per week) gaming might actually be good for you. An article in *Men's Health* in 2017 outlined five benefits of gaming:<sup>46</sup>

- Gaming may boost your memory: A study published in the journal Neuroscience found the enriched environment of 3D (but not 2D) video games resulted in a significant improvement in memory by stimulating the hippocampus.<sup>47</sup>
- Game up to brain up: A 2014 study found that playing Super Mario 64 for 30 minutes a day increased parts of the brain responsible for spatial orientation, memory formation, strategic planning, and fine motor skills.<sup>48</sup>
- Games may protect against cognitive decline: Some research suggests strategy-based games may provide some protection against dementia and Alzheimer's disease.<sup>49</sup>
- Play for flexibility: Well, flexibility of your brain at least.
   Numerous studies have shown that playing action video games can improve people's reaction times and their ability to switch rapidly and accurately between tasks.<sup>50</sup>
- Game up your work skills: Some studies show a correlation between playing video games and good eye-hand coordination, attention, working memory and decision-making ability under pressure.<sup>51</sup>

### 5. PLAY AND INTIMACY

Missionary position. Check. Making love on the same night each week in the same bed in the same room. Check. (Insert yawn here.) If you are a little stale and bored with this routine, imagine how your partner is feeling? Ideas to add some sizzle between the sheets include:

- Book a hotel room and have a naughty night away.
   (What is about hotel sex that makes it feel so much more exciting?)
- Add some adult play. If you've been playing the Same Game in the bedroom, or the 'no real intimacy at all game', don't just rock home one night and have the lights dimmed, the house decked out in candles, Barry White songs playing in the background and a trapeze set up above your bed; tell your partner you've been thinking about spicing things up a little.
- Watch some porn, together. Seriously. Switch your internet browser from YouTube to 'one of the other Tubes' and dial up your visual response.
- Go to a tantric sex class and learn about things your body does that you maybe never realised.
- Talk openly with your partner about sexual exploration and what you feel curious about trying. (Obviously, having this type of conversation requires a bedrock of trust in your relationship.)
- Visit an adult sex shop together and buy some toys, or try a bondage kit. You can buy a beginner set for under \$100.

# 6. PLAY AND FOOD

Get creative in the kitchen and lose your inhibition, go back to the section about Falling in Love with the Kitchen (Chapter 7) and have a goal each week to try a different recipe. Experiment. Make mistakes. Learn. Above all, have fun with food and try the following:

- Cook a new recipe at least one night each week.
- Pick a cuisine (say Thai) and spend a few weeks experimenting with different dishes. Then invite a bunch of people around and show them your culinary cuisine. Creating an event like a dinner party is a great way to get you to experiment and play with food.
- Enrol in a cooking class. Extra points for doing this when you travel overseas and immerse yourself in local colour.
- Add different spices, colours, textures and flavours to your cooking.
- With children, make healthy food fun. One of my kids' favourite after-school snacks is Fruit Man – I take a range of different fruits and veggies and make a person out of the fruit.

### 7. PLAY AND LEARNING

Unfortunately, there's very little information out there about how adults can incorporate play into their learning. Channelling the neotenous spirit of Glenn Capelli, try the following:

- Do away with the incessant corporate PowerPoint slides and use more storytelling and audience discovery. For instance, ask people to reflect about a particular time in their upbringing and ask them to share that experience.
- Tap into your inner child and use coloured pencils and crayons. In the Better Week activity in my PQ Leadership program, I give participants coloured pencils or crayons and ask them to map out what their ideal week looks like, in technicolour. I love seeing how engaged they become.
- The Stanford School is challenging traditional styles of rote learning and encouraging students to 'do first, then reflect and discuss after the exercise'. Why not explore this 'design thinking' and incorporate it into

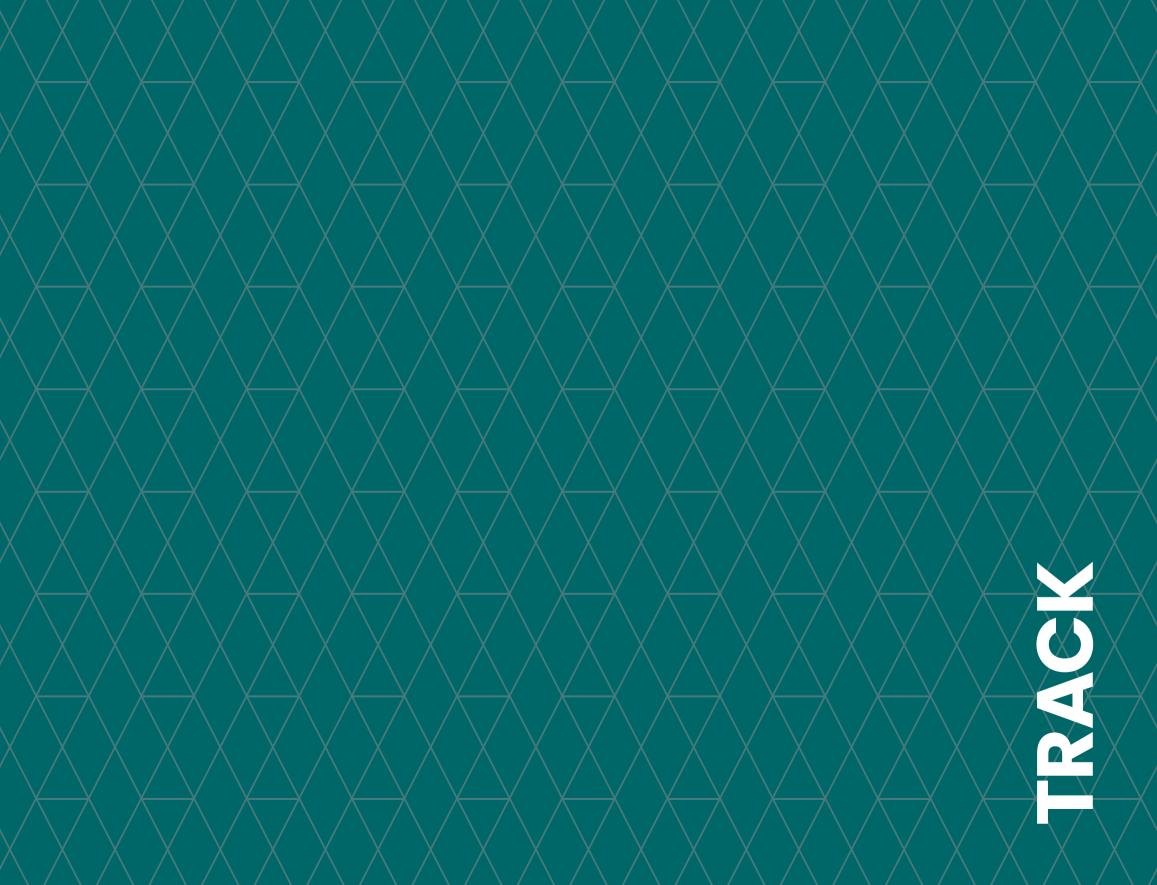
- your own adult training and education?
- Don't be afraid to experiment, try new things, make mistakes. Pick up a guitar and play really badly; go to a foreign country and make mistakes learning new phrases; cook a new recipe and stuff up the ingredients. Keep having fun, stay curious and explore. Soon you will have a range of new skills, tricks and techniques.

# **CONCLUDING THOUGHTS**

Children constantly laugh. Giggle. Play. As adults, we can become overwhelmed by work, and relationships, and money, and life – and we can lose our playful, childlike dispositions. The science tells us loud and clear: play is good for your body, brain and soul. Play has been proven to enhance creativity, curiosity and pleasure. Play increases your levels of attractiveness and adds extra sizzle between the sheets. Play facilitates learning, helps you disguise fitness by combining movement with the great outdoors or with activities you enjoy. And play can help you heal – it can even make you live longer.

After explaining all of this in one of my leadership programs, if people are still sceptical, I shake them (metaphorically) and tell them, 'Stop being so boring, serious and grey. Get off your backside, go out and play!'







ave you ever noticed that some people seem to be blessed with an abundance of time? It might be the CEO or senior executive who's happily married with three kids yet still manages to take a full six weeks of holidays a year. Or the parent of four young children who runs a successful household while completing a part-time university degree. Or the twenty-something entrepreneur who balances freelancing at night, working a full-time day job, learning a new language and being politically active.

Then there's the rest of the tribe – the majority. You know, those of us who are busy just trying to get by. Those who seem to be stuck on the treadmill, living the same Groundhog Day existence – wake up early, check email, travel to work, check email, back-to-back meetings all day, check email, travel home, check email, domestic duties, do more work, crash into bed. Lots of movement and activity, but little forward momentum or progress.

### **DON'T BE A HACKER**

I have an issue with the word 'hack'. To me, hack implies you're seeking a shortcut. Don't get me wrong, I'm open to new ideas and techniques, but when I hear someone say, 'All you need to do is follow this hack and your life will fundamentally change,' it just doesn't sit right. You need to invest time and you need to do the work. There are no shortcuts to becoming MatchFit. There is a proven set of principles, backed by science and experience. It takes time, discipline and application.

If you feel like you're stuck on a hamster wheel, let me help you. We'll break down what an Ideal Day looks like when you combine the six MatchFit levers – MOVE, FUEL, RECHARGE, CONNECT, THINK and PLAY – and embed them into your life. We'll put together a process to help you live a Better Week. We'll take a look at integrating wearable technology into your life and supporting a higher PQ.

# 1. THE IDEAL DAY

I adapted the concept of the Ideal Day after reading Aubrey Marcus's book *Own the Day, Own Your Life.*<sup>1</sup> Marcus writes about 'starting with a rock-solid nutrition plan you can actually adhere to and continuing with tools like intentional breathing [and] shower temperature', along with a range of strategies to

incorporate movement and working smarter.

I've had plenty of feedback from people over the years that after attending one of my keynotes or leadership programs, they felt overwhelmed trying to put all of the strategies into practice. That is why I really like the Ideal Day approach. Rather than setting out to change every part of your life, try to own one day. After you have owned one day, add a few more on top of that. Then try to own the week. Then the month. The quarter. The year.

Here's an example below of what an Ideal Day might look like for someone who has the 'Tiger' energy personality and a family with children at school.

4	5.30 am	Wake up	Ideally not to an alarm. Avoid checking mobile first thing.
	5.35 am	Hydrate	Water with lemon.
5	6.00 am	Exercise	Alternate between cardio, HIIT, resistance and flexibility. Play and have fun. Disguise fitness and embrace nature.
	7.15 am	Power Shower	Normal shower with last 60–90 seconds cold.
	7.30 am	Break the Fast	High protein, good fats, no sugar and low carb.
	8.00 am	Multitasking Commute	Use travel time to learn, listen to podcasts, check mobile or make calls.
	8.30 am	Daily Warm-up	Check diary and review Performance Moments and key tasks for the day.
	10.30 am	Little Lunch	Brain break and coffee or tea. Protein snack.
	10:50 am	Breathe	Breathing routine shifting state to relax body and calm mind.
	11.00 am	Hour of Power	Burst of work focusing on high-end cognitive tasks. Avoid distractions.

Ĩ	12.30 pm	Big Lunch	Eat away from desk. Include a 15-minute walk after lunch.
	3.00 pm	Move	Schedule walking meeting/s during the afternoon dead spot.
<b>a</b> /	5.00 pm	Daily Warm- down	Review the day and tasks accomplished. What worked? What didn't? Reflect.
	5.30 pm	Multitasking Commute	Use travel time to learn, listen to podcasts, check mobile or make calls.
	6.00 pm	Transition Time	Shift from work mode to home mode. Practise breathing, mindfulness, <i>hapa</i> , <i>hapa</i> . Hide your mobile and be present.
桑	6.15 pm	Connect	Spend focused time talking with family and/or friends. How was their day? Listen. Talk. Connect.
	6.30 pm	Play	Walk the dog, kick a footy, play a game. Giggle. Laugh.
	7.00 pm	Dinner	Glass of wine. Turn TV off and sit together.
	8.00 pm	Put Kids to Bed	Read with kids, spend time with partner, watch a favourite TV show. This is a window for work if it has to be done.
	9.00 pm	Switch Off and Relax	Switch off mobile, TV, laptop. Eliminate sources of blue light. Read a book, listen to music, write in journal.
	10.00 pm	Special Cuddles	Regular sex and intimacy is great for the body, brain and soul.
2-2-2	10.30 pm	Sleep	Aim to get four to five 90-minute cycles of deep, restorative sleep.

Now let's explore how this Ideal Day incorporates the MatchFit levers.

### **MOVE**

As well as a window for focused exercise in the morning, this Ideal Day incorporates a walk at lunchtime and walk-and-talk meeting(s) in the afternoon.

### **FUEL**

Meals and snacks are planned in advance to include the ideal balance of protein, good fats and carbs, plus adequate hydration.

### **RECHARGE**

As well as strategic breaks through the day, the plan dedicates wind-down time after work and relaxation activities to ensure parasympathetic activation. Screen time is eliminated before bed, and the day ends with a sleep routine.

### **CONNECT**

It incorporates time with family and friends to ensure personal connections are maintained and enhanced. Intimacy and sex are prioritised. Ritual of sitting together for the evening meal.

### THINK

Cognitive activities are planned for the optimal time of day. Space is made for learning and reading during the daily commute.

### **PLAY**

Lastly, play is integrated throughout the day, with fitness activities incorporating playfulness as much as possible. Consciously choose playtime with family before the evening meal.

# Creating your Ideal Day

The above example uses the MatchFit levers but is adaptable to changing circumstances or unexpected developments. I'm the first to admit there is *no way* every day will look like this. But the process gives you a framework and a vision. Think about your current day (non-controlled chaos) and then compare it to an Ideal Day (utopia). At the very least, meet me halfway and start taking control of your time, energy and attention.

To map out your Ideal Day – specific to your chronobiology (body clock), current MatchFit score and personal goals – go to the interactive planner at andrewmay.com/idealday. Start by adding three or four simple activities to your morning routine: a glass of water with a squeeze of lemon, a quick walk before work,

a break for morning tea. These will then become performance habits – beneficial actions triggered automatically in response to contextual cues.<sup>2</sup> Once you start to self-regulate and feel momentum from your new behaviours, add a few more. Then more. Build this process over a period of weeks and you'll be surprised just how much better your day can be. Will it be ideal, even perfect? No. It's called life and 'stuff' invariably happens. But will it start to feel better? Absolutely.

# 2. THE BETTER WEEK

Now that you've experienced how much more energy, clarity and connection you have in a single day when you integrate the six MatchFit levers, it's time to take the next step: building a Better Week. This will incorporate accountability and set a vision for the future. In the early days I called it the Perfect Week, but I soon saw that when some people (especially perfectionists) had a week that wasn't perfect, they tended to doubt the system and throw it out. Realistically, just like with the Ideal Day, perfect rarely happens. What we are after is better.

The Better Week is designed to take you from knowing what you need to achieve towards actually achieving it.<sup>3</sup> The concept incorporates *praxeology* (the science of practical action),<sup>4</sup> cognitive behaviour science and performance psychology and helps you unleash your potential in four ways:

- 1. It externalises your memory.
- 2. It restores control in your life.
- 3. It stimulates action.
- 4. It creates a vision of what a great week looks like.

Let's examine each of these in more detail.

# 1. Externalising your memory

Do you ever feel like you can't remember all the things you need to do or what you should be doing next? For most of us, the brain is limited by the famous magical number seven: no more than seven items (plus or minus two) can be held simultaneously in working memory.<sup>5</sup> To counter this, we need to get as much as possible out of our heads and into a trusted external memory – by writing it down on paper or putting it in your electronic diary. Externalising your memory reduces the burden on your brain by safely storing information ready for use next time you need it.

# 2. Restoring control in your life

When we're out of control, we often feel anxious, nervous and stressed. Traditional methods to control our lives include making mental plans and using a daily diary or action list. These take a 'fit it in' approach. That is, we keep taking on more tasks, actions, events and deadlines, without thinking about the context of what we should (or want to) be doing. Before long, we're exhausted from running in the wrong direction.

To avoid this, psychologist Mihaly Csikszentmihalyi suggests setting goals that create a sense of flow. We need to give ourselves opportunities to put our head down and achieve what we have to, creating an environment where we are challenged and engaged, but not too stressed. Csikszentmihalyi believes we need to be moving towards a goal, however far away it may be.<sup>6</sup>

The Better Week helps you plan your time with big-picture goals in mind. It integrates your recovery planner, your workflow plan and your fitness/nutrition program, and plots what you really want to achieve. It then documents your sense of purpose (external memory) and puts in place a structure to help you achieve your goals (control).

# 3. Stimulating action

Given the brain's limitations, we must manage how we store information if we want to access it easily. This is the problem with lists: once we finish one task, we need to think about what's next. The Better Week approach stimulates action by allowing you to flow from one task to the next. Because your tasks are aligned with your goals, your expectations and your understanding of what your personal peak performance looks like, you can move through the Better Week and stay focused on the *doing*, because

the *thinking* has already been done.<sup>7</sup> Over time, the Better Week becomes almost automatic. And because it's aspirational, it allows for change and innovation, which fosters creativity and success.

# 4. Creating a future vision

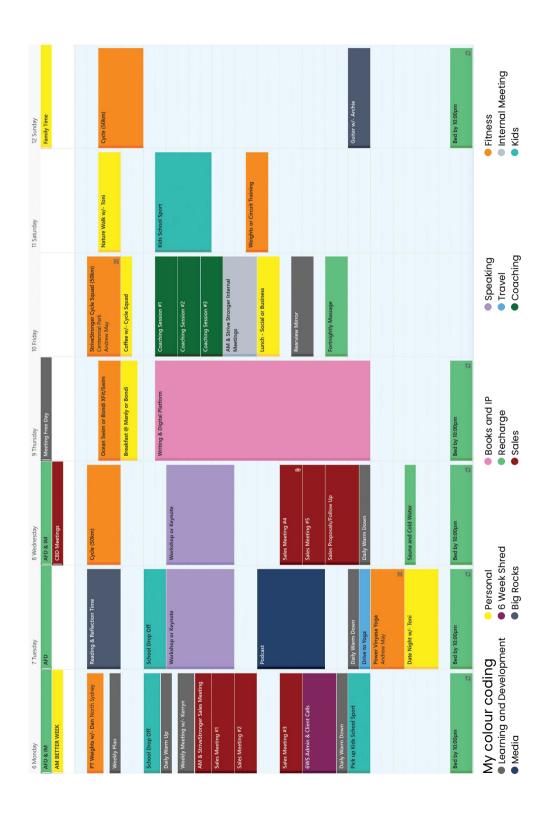
When I first developed this process I noticed that each week felt like it had more order and structure. Without realising it, I had programmed my subconscious mind to seek the activities I wanted to do more of, and to push back on the activities that were distracting me from my personal and professional goals. In Chapter 10 THINK we discussed the benefits of visualisation, and that's exactly what happens here: you visualise what a successful week looks like, incorporating all the MatchFit levers, and then you make it happen.

# My Better Week

Here is an example of my current Better Week. I update it every quarter, as life can change a lot in three months. I share it with my partner, with my EA and with key colleagues so they know exactly how I want my week to look (or at least be close to).

My Better Week starts with what is most important to me: my children. As a single dad, I need to be organised and clear what activities my kids have for school and sport, and when we spend quality time together. Next, I add fitness activities. Some people are surprised when I tell them this, as we're taught to put other people first. I've found that if I don't do regular exercise and look after my wellbeing, everything and everyone else suffers. Then I lock in time with my partner to make sure we are both connecting and doing activities together (like yoga and getting out in nature). I make sure I plan a few recovery activities and aim for a fortnightly massage, and I've recently added a note about getting to bed by 10 pm on school nights.

Then I add the work stuff. Note that I put in key activities before flooding my diary with work; this is important. *I* now have a clear vision of how I want my working week to look with regards to revenue, fulfilling my key responsibilities/roles and connecting with my team.



# Dynamic vs Static Better Week

Different types of work require different approaches. If you have a job that requires you to be flexible, responding to the demands of your customers, then your Better Week won't always look the same. You'll need to take a dynamic approach. If your work is largely task-driven and you're able to control how you spend your time, then a static approach will work best for you.

# **HOW TO BUILD YOUR BETTER WEEK**

Now it's your turn. First decide whether you're going to take a static or dynamic approach. Next, determine whether you're going to stretch yourself. An aspirational Better Week will see you aiming to achieve 70% of your vision. If you just want to make a start, aim for a week where you only add 10%–20% of activities. Like the Ideal Day process, as you gain more confidence, you can add more.

Allocate 20–30 minutes for the first draft of your Better Week. It takes most people a couple of goes to refine and get the proportions right. Download and print the Better Week template from andrewmay.com/betterweek. It looks like this:

# Step 1: Use colour

When people jump straight into a spreadsheet or online template, they often 'do' the process rather than 'be' the process. I want you to design your first Better Week using coloured pencils or textas, working through your new week layer by layer – or lever by lever.

#### **COLOUR YOUR DAY**

Is your diary currently a sea of monochrome grey of all work an no play? Let's change that. I started colour coding my diary and found that it made a massive difference to how I managed my time. I can now quickly and easily tell you how 'balanced' or out of balance my life is. If I have a month with loads of purple (speaking and consulting), red (sales), dark green (coaching) and light blue (travel), and very little yellow (family and relationship time), light green (recharge) and orange (fitness) – I know I am out of alignment and need to make some changes. Note: Approximately 8% of the Anglo population, including my father and my son, are colour blind and will need to adapt this approach.

The 'key' represents activities that are important in your life, like relationships, fitness, learning and so on, and each will have a different colour.

SUNDAY SATURDAY 12pm 0 12pm 0 **THURSDAY** 10 11 12pm WEDNESDAY 10 11 12pm **FUESDAY** 10 MONDAY

Better Week

# Step 2: Add activities

There is no set order in which you should build your Better Week. That said, I recommend starting with MOVE – exercise or fitness activities – as these build energy and momentum.

First, though, it's important to free up capacity (time, energy and attention), otherwise all this new activity can be overwhelming. Do this by:

- Turning off all pop-up alerts on your mobile devices and computer.
- Periodically checking email and social media, not being glued to them all day.
- Deleting unnecessary meetings from your schedule.

You can find a proven productivity process that on average frees up half a day each week in *WorkFit*.

Here are some tips for each MatchFit lever as you integrate activities into your own Better Week plan:

### **MOVE**

- Lock in your fitness sessions. An example might be a run before work on Tuesday morning, tennis on Wednesday night and a weights circuit with colleagues on Friday morning.
- Make yourself accountable by planning to do these with a family member, friend, colleague or personal trainer.
- Also think about how you can add movement in the rest of your week – through walk-and-talk meetings, for example.

### CONNECT

Plot some quality time with your loved ones and family.
 This doesn't include watching television together.
 An example might be switching off the internet and all electronic devices on a Wednesday evening and actually talking to each other, like we did in the old days. Or a weekly or fortnightly date night.

- Schedule time for catch-ups with friends.
- Look at how you can connect with your community, such as by volunteering at the local surf life-saving club if you live near a beach.
- Schedule some time outdoors in nature.

### **RECHARGE**

- Plot one or two activities that will activate your parasympathetic nervous system (lowering the heart rate, slowing down breathing). Maybe a warm bath (without your mobile), deep breathing, meditation or a yoga class.
- Choose something you can do each day for five to 10 minutes to recharge. (Taking a lunch break counts as long as you leave your desk.)
- A 30-minute massage is a great way to recharge your body quickly.
- Prioritise sleep and lock in a time you want to be in bed each night.

### **THINK**

- Schedule time for your own learning and development; this might be going to university or studying an evening course.
- Plan to learn a language or a musical instrument.
- Put in a few 'brain breaks' each week (incorporating mindfulness).
- Schedule a 30-minute slot on a Sunday evening for reflection time and writing in your journal.

### **PLAY**

- Plan time for outdoor games, music or just free play with the special people in your life.
- Remember that you can cross-pollinate the levers by disguising your fitness activities as play perhaps a team sport, or just hitting the beach with your kids.
- Allocate a specific date night followed by some 'bedtime play'.

- Go to a comedy show or watch an amusing show on TV.
- Engage your curious and creative mind with music and dance.

#### **FUEL**

- Do the shopping and food preparation on a Sunday for the week ahead.
- If you are busy or travelling a lot, consider pre-ordered meals.
- Make a bunch of healthy snacks (like protein balls, boiled eggs, vegetable crudites) you can take on the run.
- Cook healthy meals throughout the week with your partner, family, friends and colleagues.
- Put lunch breaks in your diary during the week to get out of the opposite and eat a nutritious meal.

# Step 3: Try, refine, then go digital

Your Better Week plan will evolve after you try it out. I recommend you do a few versions on paper, then move to a digital format.

You have a few options here:

- Go to your electronic calendar (for most, this will be Outlook or Google) and pick a week 12 months ahead with no colour entries. Now replicate the paper vision in your electronic calendar or set up the multiple calendar function and create a blank Better Week template.
- You can repeat the above process on an Excel spreadsheet.
- Sign up to SPARK and access an online simulator where
  we have automated the process for you. This allows you
  to design your Better Week and then import it to your
  weekly calendar with personalised messages and colours.

# Step 4: Print, post and share

This step is all about embedding the Better Week into your life. Print an A3 colour copy and leave it on your desk or in a prominent place at work or home. Store an image of it on your smartphone. Share it with loved ones, family and key colleagues. If you have an assistant or a wider support team, sit down and share it with them so that they understand your approach. The process of sharing your Better Week with others adds accountability.

#### TIPS FOR CREATING YOUR BETTER WEEK

- Prioritise what is most important to you. This might be family time, or recovery time, or exercise – it depends on your what you want to achieve.
- Stop reacting to other people's demands and take control by locking in the activities that are most important to you. And remember to plan some time alone for yourself.
- Include permanent meetings and bookings but remember that your goal is to strip out some of these to free up capacity.
- Don't worry if you find it difficult to plan your Better Week – if you find you've forgotten activities, for instance, or not allowed yourself enough time.
   It usually takes a few goes to get it right.
- Once you're happy with your Better Week, open your diary and book in the relevant training sessions and so on for the next three months. When the dates are in your diary, you'll be more motivated to stick to them.
- Review and update your Better Week plan every quarter to ensure that it stays meaningful and relevant.
- Acknowledge that you will need to be flexible as you strive to live your Better Week, but aim high – there's no point admitting defeat before you've even begun!

Your Better Week won't happen perfectly and completely. But if you can regularly achieve 70%, you will feel more content and in control.

# 3. WEARABLE TECHNOLOGY

Wearable devices, as the name suggests, are technologies with digital sensors that can be worn in various ways on the body. These clever devices can now measure so much: your heart rate, daily steps, respiration, calories consumed, sleep time, fatigue, changes in blood profile, insulin, ketones, cognitive function and more. But there are a lot of devices on the market. In researching this, I came across more than 430 devices (that's right – 430!), which I divide into three main categories.

- 1. Watches, bands and rings: These generally measure heart rate, sleep and movement (via an accelerometer or GPS).
- 2. Health and safety equipment: Designed to reduce injuries and minimise risk, these include smart caps (which detect driver fatigue), clothing with posture technology, and items that measure body temperature.
- 3. New (and sometimes wacky) discoveries: In this category there's the Levi Commuter denim jacket, a collaboration between Levi and Google, which charges your phone, has built in headphones, and even reflectors on the shoulders (for hipsters who cycle in the dark).

Like most innovations, wearable tech has pros and cons. The trick is making the most of its useful qualities, while not letting it control you or becoming an onerous influence.

### **MY WEARABLE LIFE**

My device of choice is Garmin, which I wear every day. I also use Strava to track my cycling activity. Here's a taste of what I've learned using these applications:

- My resting heart rate is 44 beats per minute.
- My maximum exercise heart rate is 165 beats per minute (unless I really flog myself).
- I average 11,300 steps each day.
- I sleepan average of 6.5 hours each night (I'm still working on getting this up to 7).
- I cycle an average of 150 kilometres most weeks (or 7,000 kilometres per year).
- I swim 1.5 to 2 kilometres a week.
- I lift weights/resistance training 2 to 3 times each week and do yoga once.

Using this info from Garmin and Strava, I can track my physiological responses to training, so I know when I am training too much, am becoming fatigued, or am on the verge of getting sick (my resting heart rate increases by 10–15%). I also know that consuming more than two standard drinks of an evening and getting less sleep means my resting heart rate will be up to 10 beats per minute higher the following day. This is PQ in action.

# Which device should you choose?

Sit down and work out your goal. Do you want to lose weight, increase your fitness or improve your performance at work? Are you training for an ocean swim or a half marathon? Or do you need to focus on recovery and managing your stress levels? Get clarity on exactly what it is you want to achieve.

If your aim is to lose weight, for instance, you need to keep track of your waist size and kilograms. What affects those measurements? Work out how many steps you need to walk each day, how much exercise each week, what your target heart rate during exercise should be, and how much sleep you need to make sure your body is secreting hormones at night to help you recover. Once you know these, you can then make an informed choice.



health, stress and sleep patterns. If you're just after simple movement tracking, a low-cost device will be fine. But if you want info on sleep patterns, you'll need something more sophisticated.

Another consideration is whether you need the tracker to be waterproof. Not all 'waterproof' devices are created equal - an IPx7 rating means the device can handle submersion to 1 metre for 30 minutes, which is okay for the shower, but not for surfing. Optical heart rate sensors don't generally work well underwater.

Fitness trackers are power hungry and need regular recharging. Simple devices may last a couple of weeks on a single charge but smartwatches can die in a day. The more functionality, the more power usage, particularly for GPS tracking.

How you view your data depends on the app/website that supports the tracker. A dashboard that shows your progress against a range of measures is a great motivator. You can also share this info with others and set goals and challenges.

If you're still unsure what tracker is right for you, start by carrying your mobile phone or buying a basic fitness band. You can always upgrade

After years of carrying around an iPhone, I finally bought a cheap, waterproof fitness band with a basic heart-rate sensor. But it had a poor sampling rate so after some friendly nudging from Andrew, I bought a Garmin Instinct - a lightweight, waterproof smartwatch.

Now I have access to detailed metrics and more functionality than I'll probably ever use. Below is a typical weekly summary.

One interesting thing I found was how much of a workout surfing is. I surf because I love it but often wondered how much it helps overall fitness. It's recommended to do at least 150 minutes of moderate physical activity a week, or 75 minutes of vigorous exercise where I minute of vigorous activity counts as two minutes of moderate activity. Soon after buying my new tracker I went surfing down the South Coast. Below are the results for six days of surfing.

A single day's surfing was enough to get my recommended 150 minutes' exercise for the week. And I never felt tired. I hate running and would baulk at anyone asking me to go for a 30-minute run three times a week. It just goes to show that finding an activity you enjoy is key to maintaining a healthy lifestyle.

### Don't obsess over the detail

We all know someone who's become obsessed with technology. The age-group triathlete measuring calories at a dinner party. The banking executive preoccupied with reaching her 10,000 steps and walking around the house before going to bed. If you're a perfectionist, I offer a word of caution on wearable tech: use it to help you monitor key data, but please don't obsess over the detail.

Ken Green is one of Australia's most successful running coaches. His athletes have won national titles and represented the nation at World Championships and Olympic Games. 'I've been in track and field for more than 20 years and have seen all of the latest gadgets and fad devices come and go,' he says. 'Preparing for an Olympics or Commonwealth Games is not about the latest wearable device, it's about hard work and persistence, and being in a squad of like-minded athletes who push you out of your comfort zone to achieve your full potential. Nothing motivates an athlete like another person breathing down their neck.'

# A fitness device or a fitness mate?

If you're not into the idea of measuring every step and every calorie, or you've tried using a device and abandoned it, you're not alone. Research has

identified 'fitness tracker fatigue', with one third of all wearable devices being abandoned after the first six months.8 The truth is we all need motivation to regularly exercise, and the best piece of fitness equipment you can have just might be a workout buddy.

While fitness devices can crunch numbers, they can't talk to you (Siri doesn't count), compete with you, or give you honest feedback like a real human can. If you need more convincing, read the table below.





	Fitness device	Fit mate
Intensity	Measures heart rate to tell you what training zone you're in.	Challenges you to a race up the hill – high intensity guaranteed.
Reminds you to keep moving	Vibrates if you've been sitting too long.	Knocks on your door and drags you out of bed to train.
Incidental exercise	Tracks the number of steps you take each day.	Encourages you by taking steps with you – maybe a run during your lunch hour.
Stairs climbed	Measures how many stairs you've climbed.	Screams at you to drag yourself up another set of stairs, before you share coffee and a healthy breakfast.
Sleep patterns	Measures the hours and quality of your sleep each night.	Tells you straight: stop checking your emails before bed, switch off and relax to get a good night's sleep.
Weight management	Measures how many calories you've burned based on your heart rate.	Informs you that you've 'packed it on' after a few too many apple pies and nights out.
Goal setting	If you consistently hit your 10,000 steps, ups the ante to 12,500 steps.	Talks you into signing up for your first triathlon in three months' time, and keeps you accountable each week as you train together.

In spite of the advantages, there's little concrete evidence to suggest that fitness trackers lead to significant and lasting behaviour change. Motivation is hard to sustain, which explains why so many people find themselves signing up for a gym in January, but by February they're back to marathons on the couch instead of the treadmill. My advice is have both a Fitness device and a Fitness mate to increase your likelihood of success.

### **REVIEWING YOUR BETTER WEEK**

You can keep your Better Week the same for months at a time, but if you're focused on being the best you can be, update it regularly. Consider the following:

- 1. When you can accomplish 100% of your Better Week, it's time to push yourself to the next level of performance.
- 2. If you find it hard to live your Better Week, you may have been too ambitious and need to start from an easier base.
- 3. If your situation changes you might get a promotion or take on some extra responsibilities at work take the opportunity to review your Better Week.



didn't tell you this at the outset, but the MatchFit program has been designed around specific scientific principles of behaviour change. The chapters have been deliberately arranged to provide you with a MatchFit metric that shows you where you are right now; set out activities that address specific needs; and provide you with strategies for planning and tracking your wellbeing to build accountability and increase your ability to make lasting change.

Before we look at the science in more detail, let's bust one of the most persistent myths.

# THE 21-DAY MYTH

The behaviour change buzzword used to be '21 days': *All it takes is 21 days to make or break a habit...Change is easy – if you really want to change, you can! All it takes is PASSION! And POWER! And PERSISTENCE! Blah, blah, blah...* 

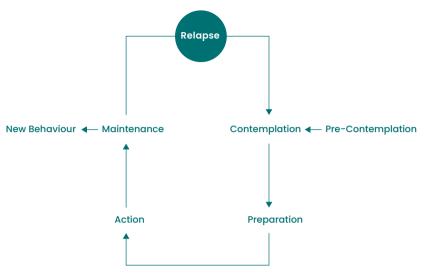
When I did my Master's in Coaching Psychology, I realised one thing above all else: *change is hard*. Not impossible, but a lot harder than the pop-psychology 21-day approach would have us believe.

Dr Tom regularly tells me that very few research grants are awarded in the social and health sciences unless they have an element of translational or behavioural science embedded in them. It's now widely accepted that knowledge alone rarely leads to behaviour change. You need to *understand* the process.

# THE STAGES OF CHANGE MODEL (SCM)

Let's look in more detail at how to make behaviour change stick. Firstly, change is not simply about making a decision. It's *a process*. And understanding this process is critical. Since the early 1980s, there have been more than a thousand academic articles written on the various stages of change. The research shows that change is a dynamic and complex process that involves a number of different stages.

My preferred change model is the evidence-based 'Transtheoretical Model' devised by psychologists James Prochaska and Carlo DiClemente.<sup>1</sup> To keep things simple, I'll refer to this as the Stages of Change Model (SCM).



Reference: J.M. Prochaska (2000) 'A Transtheoretical Model for Assessing Organizational Change

Let's explore each of these as they relate to MatchFit.

# **Pre-contemplation**

Pre-contemplation refers to the stage where you don't know what you need to know. Some call this 'ignorant bliss'. In pre-contemplation, you haven't even started to think about changing your behaviour. If you are aware of it, you may be thinking, 'I'd rather cope with my problems than change them' or 'All this psychology talk is boring.' You may even be thinking, 'As far as I'm concerned, I don't have anything that needs changing.' As a performance coach, my first job is to help people understand what they don't know, and then support them through the dynamic process of change.

Throughout this book you will have discovered things you didn't know. It might have been about nutrition, or about movement and mitochondria, or about psychological detachment. Learning about something, however, doesn't mean you have made the change; it just means you have new information.

# Contemplation

The next stage is contemplation, which is characterised by ambivalence and uncertainty. You *want* things to change, but at the same time you also want them to stay the same. Dr Anthony Grant from Sydney University calls this 'the seesaw of ambivalence'. During this stage, you may be thinking, 'It might be worthwhile for me to work on this problem' or, 'I know I need to get fit and focus on my wellbeing, but it's not a habit and I still find excuses to not train regularly.'<sup>2</sup>

Your mind is like a seesaw, weighing up the pros and cons. This in itself consumes a lot of time and energy! But it's not necessarily a bad thing. The fact that you're contemplating change shows you've been actively thinking about making progress. To help you move through this stage, write down your thoughts and 'stack the seesaw' towards change.

Reasons to change (+)

### LESSONS FROM THE NEST

A few years ago I was involved in an SBS documentary called *The Nest*. Three families were selected, each with male–female parents and with children, and they invited a camera crew into their homes five days a week for eight weeks. I was the so-called expert/provocateur brought in to get them to embrace change and improve their work/life balance.

Before we started filming, I went through the behaviour change model and explained that once the novelty of the TV cameras and crew wore off around the fourth week, things would get hard. To the day, my prediction came true. As the families relaxed back into their normal lives, they reverted to their true behaviour.

One day, while filming in the home of John and Mel, I asked John about making physical activity part of his week. We danced around the topic for a while before John came out with the breakout quote of the series. 'Sometimes it's easier to remain comfortable with being uncomfortable than it is to change behaviour.'

The producer and I just stared at each other. Eureka! While John was getting frustrated, he had nailed the message. **We get comfortable with being uncomfortable.** True change not only requires that you get uncomfortable, you have to really apply the blowtorch to your backside!

# Preparation

The preparation stage is the missing link. You have made the decision to change, yet you still feel ambivalent. You may be thinking, 'Is this what I want? Am I prepared to invest the time and energy to make this happen?' And 'how do I know this is going to work?' An example I often hear relates to physical activity.

*Me:* 'So, you've tried fitness programs a number of times in the past and they haven't worked?'

*Client:* 'Yep, that's correct. I've joined heaps of gyms over the years, and I go nearly every day for the first week, then after a month it peters out, and there's another thousand bucks down the plughole.'

*Me:* 'Can I ask you a simple question? Do you actually like going to the gym?'

*Client:* 'Absolutely not! I hate it! I hate the sweatiness, I hate the people staring at me. I just can't get motivated exercising indoors.'

*Me:* 'Well, it sounds to me like training in gyms is not the best option for you.'

Client: 'But how on earth am I going to get fit?'

*Me*: 'What do you like doing? Do you have a dog? Do you like swimming? Did you like riding your bike as a kid?'

And so the coaching conversation continues.

This is why I devoted an entire chapter of this book (PLAN) to getting your body, brain and life ready *before* you start the MatchFit program. I hope the lightbulb has switched on and you can see how rewriting your Fitness Story and your Nutrition Story are fundamental to changing your habits.

### Action

Getting to the action stage takes one to three months. You may be thinking, 'Although my problem is difficult, I'm working on it' or 'I've started working on my problem, although I might need more help.' The New Year goal-setting process that so many people stuff up is related to this step: if you go straight from thinking about it (contemplation) to doing it (action), without the vital thinking and planning part of the process (preparation), you'll revert to your old ways after a few weeks.

### Maintenance

The maintenance stage typically occurs three to six months after you begin. While the new behaviour isn't yet automatic, it is getting easier and doesn't require as much effort as it did in the action phase. You may be thinking, 'I thought I'd resolved the problem and would be free of it, but sometimes I still find myself struggling.' This is where you need to work hard to maintain the new behaviour. You might need to set reminders and accountability markers to keep yourself on track. The Better Week process and Performance Scorecard are designed to help you do this.

### New behaviour

It takes roughly six months to make a call on a new behaviour. If you've followed the previous stages, the action should now be automatic and feel like part of your daily life. Congratulations. You have moved into the phase of 'unconscious competence'.

# Relapse

All too often, relapse is not given enough air time. It's most common in the action or maintenance stages, as we're still getting used to the new behaviour.

But relapse is *not* a dirty word – it's a normal and healthy part of the process. Approximately half of all people who resolve to change their behaviour fail to make the change last beyond six months. The average person makes the same life resolution 10 times without success.<sup>3</sup>

Relapse doesn't start with the slip-up – it usually begins well in advance – and is often associated with:

- A shift in attitude, where the change you worked so hard for loses importance.
- Elevated stress, possibly due to an unanticipated change of circumstances or relationship.
- Reactivation of the denial that resulted in the situation you tried so hard to change in the first place.
- · Social pressures.
- Loss of the structures or control that helped you maintain the behaviour change.

As the model shows, relapse is part of the process. It doesn't mean you're hopeless. Relapse is *not* failure. It's your system trying to recalibrate and test the status quo. Often, lifelong behaviour stems from lessons learned when you relapse. A good behaviour change strategy will actively plan for it.<sup>4</sup>

Once you accept relapse is a normal part of the process, it takes the pressure off having to be perfect and change overnight. Knowing this will also help you to get yourself back on track when you do go off the rails.

### KIEREN PERKINS DIDN'T USE THE WORD 'FAILURE'

A few years back I had the opportunity to work with dual Olympic gold medallist Kieren Perkins. As I got to know him, I gained an insight into what made him such a champion. Sure, genetics and a freakish lung capacity helped. But it was his mental approach that put Kieren ahead of the pack.

His coach, Mr Carew, distilled into Kieren from a very young age that making mistakes was not failure. In fact, they deleted the very word from their vocabulary. To continually improve and become the world's best 1500-metre swimmer required taking risks and changing stereotypes about training and racing. Part of their winning culture was an understanding that they would make mistakes, but that this was a perfectly normal part of the process.

The rest, as they say, is history.

#### **DON'T KID YOURSELF!**

Don't confuse the research around relapse with a 'get out of jail free' card. Let's say you start a diet on a Monday (all diets start on Mondays). You have a bowl of porridge with fresh seasonal fruit for breakfast; brown rice, grilled chicken and steamed greens for lunch (yummy). So far so good.

But then you grab an afternoon coffee at 2.30 pm. As you're walking out of the staff kitchen, you see an open packet of Tim Tams. 'Feed me!' your inner voice bellows. 'Go on, you deserve this! Besides, the research says it's okay to relapse between six and eight times, so it won't hurt. You're just rolling with the statistics...'

I hardly need to say it, but I will: you're only fooling yourself. Don't beat yourself up if you relapse, but do your absolute best to stick to your commitments and strive to do better.

# READINESS TO CHANGE

Your 'readiness to change' sits between the contemplation and preparation for action stages and has been shown to be an important factor in predicting sustained behaviour change.5 I find that knowing an individual's, team's or organisation's readiness to change helps me identify exactly where they are in relation to the SCM. This allows me to tailor my approach to best support them through the change process. Trying to implement an intervention that does not

match the readiness of an individual won't work. I've also found that trying to move a person too quickly through the SCM can create resistance.

So understanding your own readiness to change will help you to coach yourself. It also allows you to have a little laugh every now and then. You're only human and change is a fluid, complex and transient process. Now you have a greater understanding of the change process, let's take a look at our habits.

# WHY IS BEHAVIOUR CHANGE SO HARD?

One thing that's not often acknowledged is that turning a bad habit into a good one has two aspects, each of which can be difficult to embed into your life. At the same time as you embrace a new behaviour or routine, you must also say goodbye to an old one. And each of those changes can hurt.

Having a bad habit doesn't mean you're stupid – we all have them. Understanding more about the science that underpins habits and behaviour change helps explain why smart people do what might seem like dumb things.

From a neuroscience perspective, there are two main reasons why change is so painful. Firstly, when we encounter something new, we use our prefrontal cortex, which requires a lot of energy and conscious attention. Habits, routines or familiar activities are stored in the basal ganglia, which regularly become activated without conscious attention. To change hardwired habits in the basal ganglia requires a lot of effort, in the form of focused attention that activates the prefrontal cortex. Basically, this means that creating new habits and deleting old habits ain't easy.

Secondly, our brains are geared to detect perceived differences between expectations and actuality, which neuroscientists call *error*. If something new – an error – gets localised, the orbital cortex (located in frontal lobes and involved in decision-making) fires signals to other connected areas, such as the amygdala (which controls fear, anger and anxiety). When activated, the amygdala can make a person more emotional or impulsive. When we create new habits, the brain hits an alarm signal that often triggers old habits as a form of comfort. (Hello relapse.)

This all highlights the importance of being mindful and paying attention when developing habits. This will create and strengthen neural connections, which can help make a behaviour or a thought into a new habit.

# **BAD HABITS ARE KILLING YOU**

Fact: more people die from bad habits – like smoking, drinking, not exercising or poor nutrition – than from any other cause. Doing the sums, every single year millions of people die prematurely and unnecessarily.

It might sound strange, but the reality is that *life is one big habit*.

Let me explain by making a few predictions about you. You woke up today at pretty much the same time as you do most mornings. You had the same breakfast, took the same route to get to work, ordered the same coffee from the same barista, and for

#### WHAT DOES SCIENCE TELL US ABOUT HABITS?

- Habits are largely learned and are acquired through experience:
  You probably don't remember where you formed your
  habits. Studies show that brain changes occur during habit
  changes, many of which involve reinforcement. Sometimes
  habits get learned at the same time as skill development.
  For example, you might learn how to ride a bike, and at the
  same time develop the habit of riding the bike every day.8
- Habits become automatic from occurring habitual behaviour and can become fixed: Automatic routines are instinctively woven into our everyday lives and develop over time, mostly without us being aware of them. A habit is any action that we perform so regularly that it almost becomes an involuntary response.
   Sociologists believe that 85–90% of daily human behaviour is ingrained habit. Out of every 11,000 signals we receive from our senses, our brain only consciously processes 40. The rest is habit.<sup>9</sup>
- Habits are determined by a 'cue': There has been a big shift in the past decade towards understanding why our brains seek out habitual behaviours and more importantly how delicate these neurological structures are. Charles Duhigg talks about habits being 'a cue, a routine and a reward. Most people focus on the routine, that's what we obsess about. But if you target the cue that sparks the behaviour and the reward it provides, the behaviour can be dislodged more easily'.<sup>10</sup>
- Habits are stored in the brain: Ann Graybiel, a brain researcher at MIT, has shown that the brain never completely deletes old patterns. Habitual patterns retain what is called 'memory of context' and are stored in the basal ganglia region, deep in the brain's neural structure. When a stimulus from the old days returns, the dormant pattern can quickly reassert itself (hello, cigarette smokers!). The basal ganglia awakening from a dormant state is also a familiar situation to anyone trying to lose weight. Habits form networks with other habits, and the whole habit-web becomes resistant to change.

lunch you had the same sandwich or pasta dish. Let's go one step further. I bet you even had similar conversations with similar colleagues as you did last week, last month and last year.

Now, before you start to freak out, relax. I haven't been following you around. It's all to do with habits. Our lives are composed of hundreds of cues, routines and rewards, all of which come under the banner of habits.

# Soft addictions or bad habits?

But it's not all bad, right? Surely the small, hardly noticeable things we all do on a daily basis are okay? Can't some habits simply be a little naughty, rather than totally bad?

'Soft addictions' are those seemingly harmless habits such as continually surfing the internet, endlessly checking your mobile phone, compulsive shopping, overeating, watching too much TV and procrastinating. They might seem minor, but these habits actually hold us back from achieving our goals and enjoying the life we want. Soft addictions cost you money, erode your time, fragment your attention, deplete your energy levels, numb your feelings and damage your relationships. And guess what? We all have them.

But if your behaviour no longer soothes or relaxes you, and instead starts to consume you, it has moved from being a soft addiction to a bad habit.

### SIX STEPS TO BUSTING OLD HABITS

- Identify the habit: Identify the biggest soft addiction or bad habit in your life. If you keep this habit going, will it affect your job, your finances, your health, your relationships or even your longevity?
- 2. Examine your motivation: Ask yourself: why do you stick to this habit? Does it make you feel better? Is it a social response? Is it due to boredom or loneliness?
- 3. Target keystone habits: A 'keystone' habit unlocks other patterns in your life. To make good habits stick, try establishing a cue and a reward. For example, a cue might be to work for an hour without checking your email. The reward is to allow yourself to surf the internet for five minutes at the end of the hour.
- 4. Identify roadblocks: Things that you may have difficulty controlling could include your circumstances, your individual skill or your behaviour repertoire (in other words, what you are realistically capable of doing). If you're trying to cut back on drinking, what are you going to do in a social setting where other people around you are freely drinking? Identifying potential roadblocks helps avoid surprises along the way and increases the likelihood of success.
- 5. Make yourself accountable: Telling friends, family and colleagues about your change program will not only give you support during the tough times, but will also help you stay on track and remain accountable. Better still, invest in a coach; this dramatically increases your chances of changing behaviour.<sup>14</sup>
- Celebrate your success: Busting bad habits can be a long process. Reward yourself along the way and celebrate the small victories. Remind yourself of how many days you've been following the new plan and list the positive changes this has brought into your life.

# UNDERSTANDING BEHAVIOUR CHANGE

# **RITUALS IN MY LIFE**

Over the years I've developed a set of rituals that energise me each morning, keeping me healthy and productive. I travel quite a lot for my job, and I find that when I'm feeling fatigued, following this process kick-starts my body and brain into gear. Before long, I'm feeling fresh and sharp again.

- Wake up early and exercise: Most days I rise anywhere between 5.00 am and 5.30 am; I find the stillness before the day starts is the best time to think. I exercise most mornings as this wakes up my body and brain and sets me up for the day ahead. Moving, especially outdoors in nature, is a proven way to release endorphins and get the blood and oxygen pumping to the brain.
- Lemon cocktail: The first thing I do most mornings is pour myself a glass of water and add a lemon squeeze (approximately half a lemon), which together act an anti-inflammatory and detox agent.<sup>16</sup>
- Make your bed: I borrowed this ritual from Tim Ferriss, author of The 4-Hour Work Week. The idea is to embrace the discipline of making your bed each day before you leave the house (try cleaning up the kitchen as well), so that when you come home you are stepping into an orderly and structured environment.<sup>7</sup>
- Connecting with loved ones: As I am a single dad and travel a lot,
  I find the ritual of checking in with my little ones every morning
  when they are not staying with me very meaningful. It reduces the
  anxiety I sometimes feel about not being with my children every
  day. We talk about the day ahead and I tell them I love them.
- Meditate: I must admit, I don't find this one easy first thing in the morning but I know many people who swear that meditating for five to ten minutes each morning helps them focus for the day ahead. Try smartphone apps like HeadSpace and Calm. Each day I include conscious diaphragmatic breathing.
- Eat breakfast: Starting the day with a nutritious breakfast that combines
  protein, performance carbs and good fats is the perfect way to fuel
  your body and brain for the day ahead. This changes on the one or
  two days most weeks where I am doing an intermittent fast.
- Coffee: Every morning, part of my warm-up ritual is having a good coffee.
   There's nothing like the aroma of freshly brewed coffee, the sound of grinding beans, and the steamer kicking into gear to jolt my brain into work mode.
- Daily warm-up: Just like an athlete warming up before a competition, you can't press a button and expect your brain to spring into focused work. Especially if you've been using email or social media that morning, you need to put a hard stop in your diary and sit down for five to 10 minutes with a mindful approach to the day ahead. Ask questions like:
  - · What is the best use of my time today?
  - What are the four or five tasks I need to complete?
  - What are my key Performance Moments?
  - · Who do I need to connect with?
  - How can I prepare to meet today's challenges?

Incorporating morning rituals such as these into your life is a great way of preparing your mind for the day's activities, which is the first step towards performing at your peak.

### **RITUALS VS HABITS**

Unlike a habit, a ritual is done with deliberate intention and focus. When we perform positive rituals each morning we can create a mindset that positions us for a successful day.

Proactive behaviour is taking action to change a situation for the better. It's a trait that is related to career success, job performance, salary and self-efficacy.<sup>15</sup>

Benjamin Franklin, a founding father of the United States, woke at 5am and asked himself, 'What good shall I do this day?'

Apple co-founder Steve Jobs, in his famous 2005 Stanford address, revealed how he started every day. 'For the past 33 years I have looked in the mirror every morning and asked myself, "If today were the last day of my life, would I want to do what I am about to do?" And whenever the answer has been no for too many days in a row, I know I need to change something.'

Morning rituals are equally powerful in sport. Glenn McGrath, Australia's best ever fast bowler, was a classic example. While on tour, I got to know his pre-match routine of '90, 60, 30'. Ninety minutes before the bus left the hotel in the morning, Glenn would be in the pool warming up his muscles and stretching his body. Sixty minutes before departure, he would have breakfast. Thirty minutes before departure, he would be downstairs ready to go to avoid the last-minute rush. This routine helped him to focus more energy on playing cricket at the highest level, as he was spending less time stressing about 'the little things'.

Ariana Huffington, transformed her mornings from 'tornado to tranquil'. Upon waking, she breathes deeply, practises gratitude, does a morning meditation, followed by cardio on her spin bike. Low to moderate exercise, stimulates the central nervous system and is great for increasing energy.

# **CONCLUDING THOUGHTS**

Aristotle summed it up best. 'We are what we repeatedly do. Excellence, then, is not an act, but a habit.' The MatchFit program is designed to help you to become aware of your habits It then supports you with specific recommendations that embed high-performance behaviours into your life. Ultimately, you will develop rituals and routines to stay MatchFit permanently.



# SHELLEY ROBERTS – SLOWING DOWN TO SPEED UP

When I first started working with Shelley Roberts, Managing Director of Compass Group – Australia's largest catering services organisation – she told me her goal was to be more efficient and wanted to squeeze more into her already hectic days.

Like a lot of executives, she had been (incorrectly) taught that the secret to getting ahead was having an open-door policy and being available 24/7. Her diary was a tsunami of back-to-back meetings, leaving her very little time to reflect, prepare or plan. I could see she was spinning her wheels: using so much energy during the day before going home to her family fatigued.

After a few sessions, however, we flipped her original goal on its head, recognising that she needed to slow down in order to speed up. My philosophy was news to Shelley. 'I wanted quick tips to improve my fitness and to boost productivity,' she says. 'When Andrew told me we were going to spend time planning everything – from what I eat, how I sleep and recover, how I shift state, how to be more present at home, how to train smarter, and understanding my Fitness Story and how this is linked to energy levels – I initially thought I might have the wrong coach. I wanted action. I wanted immediate results.'

The first step in Shelley's plan was to free up her diary. I asked Shelley and her executive assistant, Lindsay, to cut 30% of weekly meetings and start building in time to think and strategise. We identified the key Performance Moments.

A few weeks later Shelley showed me a colourful printout of her diary. There were considerably fewer meetings, more time for planning, more time for herself, and regular, uninterrupted time for her family.

'I now approach the way I work and live in a totally different way,' she says. 'Previously my diary left me no time to think, no time to plan and no time to shift state from one meeting or event to the next.'

After freeing up her diary, the next step was to teach mindfulness, deep breathing and how to shift state before important Performance Moments. We spoke about PQ, about slowing down before she sped up. At the same time, Shelley started training with a PT named Gillies. We stopped her playing the Same Game with her fitness – she was doing the same 5 km run each week – and introduced body weight circuits, yoga and HIIT.

'Wow, what a difference PQ makes!' Shelley says. 'I am now training fewer hours per week compared to before, but at higher intensity, I'm doing resistance training twice a week, and yoga too. My bioage came out five years younger, and I feel it – that's almost pre-kids age!

'I learned that disconnecting from the previous meeting before you go into the next meeting is critical. Before really important meetings, like a board meeting, I now hold 30 minutes in my calendar to go for a short walk, do some breathing and a pre-performance routine to focus on what I want to achieve. It's completely changed the effectiveness of my leadership – I now know that less is more.

'After Andrew convinced me of the "method in his madness", I literally implemented the strategies from one day to the next. The same meeting a day later had completely different outcomes, and I felt so much more productive. I learned that it's as much about managing your energy levels as it is about managing your time. I regularly check my heart rate now on my watch as a guide to how much energy I am using, and then deploy the techniques I was taught to manage my energy output. It's great understanding and then applying the science.

'My family really noticed the change in me too – I'm more present and less stressed – and that has been the best outcome of all.'

# PETE BIRCH - LIVING THE BETTER WEEK

I worked with Pete's leadership team at Bankwest a few years back and to say we didn't click at first would be more than an understatement. 'When my leader mentioned we were doing a wellbeing and leadership program in Perth with Andrew,' Pete

says, 'my first thought was: *Here we go again, more management consultant BS!* The turning point for me was when Andrew asked us to stop "majoring in minors". He could see my lack of enthusiasm and asked me what was most important to me each week. I can still remember that feeling like he had slapped me, and the answers became crystal-clear:

- 1. 'Family time doing the things we enjoy as a connected family.
- 2. 'Australia making the most of moving to this country from the UK.
- 3. 'Making a real difference in my role at work.'

After some self-reflection, diary tracking and a few honest discussions with his family, Pete realised that his reality was very different to what he'd hoped for. In his own words, he 'was busy being busy'. He was filling his diary with back-to-back meetings, with very little time for reflection, and next to no time for health and wellbeing. His philosophy was to work hard and expect the results to come. He had never connected leadership to looking after himself, physically or mentally.

'I'd always considered myself reasonably fit and healthy. When I told my son that playing soccer with him was important to me, he hit me with the hard truth that as he was getting older and faster, I was getting older and fatter. He wasn't enjoying it as much as I was and I was embarrassing him. This cut to the core and was an extreme wake-up call. In hindsight, one I needed.

'I'd also always considered myself helpful around the house and was unaware my next conversation was going to involve a performance review. When I told my wife that enjoying Australia was important to me, she replied that it was important to her as well. Then she added that I'd be more valuable as a husband and a father by making myself useful around the home, rather than being physically there but being mentally still at work.'

A time-use audit and diary review showed that Pete was lost in meetings and emails, as opposed to making a real difference in what matters. This came at a time when he was taking on a new role with a leader whose expectations of him had lifted. Pete's new leader told him she expected more from him, and that he had a lot more potential.

'I embarked on my Better Week journey all those years ago, and I've stuck with it ever since,' he says. 'Every week starts with two hours on Monday morning preparing for the week ahead and ensuring that those things which are important to me are well balanced. The week finishes with me completing a Performance Scorecard and asking what I can do to improve.'

Here are a few things Pete has learned along the way:

- Better Week challenge the use of every minute. Go to meetings if you're needed for direction or decision. Block time in the diary for emails - five hours is my weekly max. If you have an assistant, meet daily to check in and see how you're doing.
- 2. Forced Isolation try to take three hours per week for thinking time. Find somewhere quiet, lock in a topic and set a goal. I use this for things such as refreshing my strategy on a page or developing quality discussion notes for performance reviews.
- 3. Recharge every day for 15 minutes aim to get out of the workplace. It could be a walk or just a sit in the park. I always find I relax, re-energise and my thought process is much clearer when I return.
- 4. Fitness Devil although I'm 20 kilograms lighter than when I was at my worst, I'll never be the fittest person on the planet. Exercise is hard for me, and eating bad foods is easy. I have a Fitness Devil who sits on my shoulder it's my son. He regularly checks in to ensure I've completed my step challenge, to see how the gym went, to get an update on my weight or just to remind me how bad alcohol is!
- 5. Scorecards and journals each week my assistant and I score the overall performance of the week. Giving points for such things as effectiveness of meetings, drinking water, completing my steps, relaxing, connecting with the family everything, basically. I also write down what got me off track.

Pete's conclusion is simple. 'The Better Week has significantly improved my performance. Andrew's program has given me an extra 16 hours of capacity through reduced email, meetings and distractions. As my role has grown and I've continued to fulfil my potential, these habits have never changed. I always find time for the things that matter, and that makes a big difference when you're leading large and diverse teams. I'm less reactive to incidents and (so the family tell me) when I'm home, I'm home.'

# **MICHAEL WRIGHT - SHIFTING STATE**

It's not every day you find yourself in the witness box at a Royal Commission complete with highly skilled QCs asking you serious questions about the company you work for and represent. This happened to Michael Wright in early 2018.

I met Michael in 2017 when he was the head of BT Financial Advice, a subsidiary of Westpac. He'd booked me to speak to his team of financial advisers and leaders in Queenstown, New Zealand. I outlined how his staff could more effectively manage their bodies and brains under pressure, and how they could prepare for high-stress situations – Performance Moments. I also explained transitioning between Performance Moments without wasting energy.



The theme could not have been more meaningful for Michael as the possibility grew that he would have to appear at the Royal Commission into the financial sector. After the conference, Michael began working on his fitness and wellbeing. 'My exercise routine at that time was long-distance running,' he says. 'In 2017 I completed the Motatapu off-road marathon and I was also surfing as much as I could on the weekends. Andrew challenged me to look at my routine holistically, likening my possible Royal Commission appearance to a professional sportsperson preparing for an event.

'To maximise my energy and minimise my training time, I initially focused on resistance training, so I could prepare myself for the long days and sleepless nights. I then began lifting weights and doing bodyweight circuits. I did pilates and yoga with my wife and daughter. Bringing back resistance training and including flexibility, core and mobility increased my allround fitness, which was exactly what I needed to get ready and stay strong. Just doing long runs was taxing on my body and very time-consuming.'

A few months out from his appearance at the Royal Commission, we discussed other changes to his fitness routine – strategic changes – to ensure that he was at his peak and would represent the industry as well as he possibly could. He cut back on alcohol, started monitoring his resting heart rate, and ensured his daily steps were above 10,000, using this 'wandering time' for reflection. He also tried to get more quality sleep, but said that this was a 'dismal fail'. Even so, the changes we made to his physical and mental training routine helped him significantly.

During his preparation phase, he monitored his heart rate and was very aware of how his body responded to stress. He tried techniques such as breathing/relaxation skills, visualisation and self-talk to help him stay calm under pressure. All these purposeful changes, coupled with his discipline, came into their own during the two days and close to six hours he spent in the witness box.

'The morning I was due to appear, after a night of little sleep, I was struggling to get the motivation to stick to my daily routine.

It was hard not to feel anxious and intimidated after watching the first three days. I was worried I would not be helpful to the Commissioner, and that I would not represent the industry appropriately. I was looking for any excuse to stay in bed, despite months of diligent preparation and focus. This is when the performance mindset kicked it – the productive self-talk become more of a conversation, and I imagined Andrew saying, "Mate, on a day where you really need to step up and perform, prepare like every other day. Stick to your plan, big fella."

Michael did just that, putting into action the exact plan we had mapped out.

- 'I laced up my runners and went for a run around the 'Tan, keeping the pace moderate so I didn't fall in a heap that afternoon. I ate my favourite breakfast: egg white omelette with greens.
- 'I stayed clear of my mobile phone so as to avoid wellintended tips/distractions from people, as well as potentially distracting news articles.
- 'I walked the couple of kilometres to the courthouse, selftalking all the way about how I couldn't be more prepared.
- 'I sat in a park opposite the court, 45 minutes before the proceedings started, getting my heart rate to a level I knew was optimal for me between 65 and 70 beats per minute to reduce my unproductive fear and anxiety.
- 'The best technique to get me there was deep breathing, six seconds in and six seconds out, for 20 minutes, and visualising happy moments with my daughter and wife.
- 'I sat in the court room for a few hours prior to giving evidence. During my testimony, I would go into the witness box well before I was needed, so as to continue working on my breathing and relaxation techniques.
- 'Once questioning started, I stuck to my plan of staying well hydrated – although I overdid it in the first hour, and thankfully was allowed to take a toilet break.
- 'I think the most impactful tactic I used to stay composed and centred when under pressure was this: I paused and

looked at my heart rate monitor, and if over 70 beats per minute (which it often was!), I consciously took more breathing time, more thinking time. This ensured that my response was the most considered, helpful response it could be. It didn't always work, however more often than not I felt in control of my physiology and my thought process.'

Michael told me that refining his mental and fitness routine, along with the plan we put in place, was critical in allowing him to perform at his peak during the Royal Commission.

# **ANDREW MAY - THE ENGLISH CHANNEL**

You might wonder why there's a case study about me – I'm the MatchFit expert, after all, aren't I? Well, yes, but that doesn't mean I'm perfect. In fact, as this story shows, just like everyone else, I sometimes need a push to get out of my comfort zone ...

In October 2017 I received a phone call from a friend of mine, Tash.

'What's going on, Tash?'

'I'm entering you in a swim across the English Channel next year.'

'Ha, ha. What are you really doing?'

'I told you – entering you in an English Channel swim.'

'Um, I think I missed that conversation ...'

'Come on, when was the last time you really stretched yourself? Did something that scares you? It's time to stop playing the Same Game.'

Tash had recently heard me say something similar while running a program for her team at KPMG.

'That's unfair! You can't take me off in an attempt to make me feel guilty about not joining you. And you know I'm not a strong swimmer.'

'Well, it's time to become one. This will be a great experience.'
'Nope, you haven't convinced me.'

'I guess I'll just have to tell everyone that you're soft!'

She played me like a conductor controlling a symphony orchestra, appealing to my ego, my sense of adventure and my desire to stretch myself.

'Okay, okay,' I said. 'I'm in.'

Driving home that night, I rang Tash to confirm she wasn't joking. She wasn't. As part of a team of four, I'd be swimming the English Channel.

Although I have an athletic background, I don't swim very often. And I'd certainly never felt comfortable enough in the water to tackle one of the world's most challenging ocean swims. I had around seven months to prepare, and I knew I needed to gradually increase my training to ensure I had a solid fitness base – but I also had to be careful not to injure my shoulders.

My first swim, after Christmas a couple of months later, was one kilometre in a swimming pool on the Gold Coast. I felt terrible. I was shocked. I could ride a bike for 100 kilometres plus, but swimming just one kilometre – in 23 minutes! – drained me.

A week later I met my mate Dave in Byron Bay. Dave was getting married in February, and rather than having a boozy buck's celebration, he planned a fitness weekend. We cycled to Wategos Beach for an early-morning swim, and as we were walking into the water I said, 'You know, this place is famous for sharks. What'll you do if you see one?'

Dave laughed. 'Swim faster, mate.'

Less than three minutes in, I was thinking how lucky I was to be swimming over a rock platform in crystal-clear aqua water with beautiful tropical fish. I breathed to the right and saw something – *Wow, that's a big fish!* Twenty strokes later, the 'big fish' had taken an interest in me and circled back, swimming literally right underneath me. When its tail was not yet past my head and its pointy nose was level with my feet, I realised this wasn't Nemo – it was a juvenile white pointer, over two metres long.

Rather than panicking, I slowed down and kept calm; subconsciously, I must have known that if I splashed around and carried on there was more chance I'd become its breakfast. The shark, after letting me know who was boss, swam off.

Dave was four or five metres away but I managed to catch his attention. When he saw the fear in my eyes, or perhaps how milky-white my face was, we both heeded his original advice and 'swam faster' back to shore.

After processing what had just happened, we jumped on our bikes and rode back to Main Beach, as I knew that if I didn't get back into the water immediately, I probably never would. After finishing a two-kilometre swim, we were telling the locals about our brush with Jaws. One of the local surf club members said, 'Ha, two metres – that was only a baby.' Sure didn't look like a baby to me!

Back in Sydney, I got in contact with Brian Sutton, former Swimming Australia head coach. Brian watched me swim two laps of a pool, then he leaned over the edge and in his endearing Aussie accent said, 'Maysie, as a swimmer you make a bloody good runner.' Apparently my technique was rubbish. 'You stick your head up out of the water and your breathing is out of sync. Your arms cross over the midline of your body, which causes your shoulders to rotate. You swim like a drunk snake.'

'So what should I do, Brian?'

'Start again, mate. Throw everything out the window and start again.'

In February I built up to swimming three to four kilometres a week. At the end of the month I tracked down local legend Vlad Mravec and got him to look at my technique. Thinking I had taken huge steps forward, I dove in and Vlad watched me swim just one lap. 'What is this?' he said in his endearing Russian accent, hunching his shoulders. 'You are super-stiff. Your body is burning so much energy.'

At least I wasn't a drunk snake.

In March I reduced my swimming to two to three kilometres a week, practising some drills Vlad had shown me and trying to swim in a relaxed way. In essence, I had to unlearn my technique. This was one of the hardest aspects of the whole project for me, as I felt like I was going backwards, but I knew I needed to make the changes so I persevered.

In April I built up to between five and six kilometres a week.

I joined Vlad's swim squad in May (with the fantastic coach Jaye) and increased to eight kilometres a week, building through to 10 to 12 kilometres a week in June. I also followed a specific conditioning program to strengthen and stabilise my shoulders and upper body.

The first weekend in July I met with Tash and the other team members on the South Coast for an early morning cold-water training camp with our Channel coordinator, Chloe McCardle. At 4.45 am approximately 20 enthusiasts were instructed to grab a waterproof bag with a lamp inside it and tie it around our waist so we could be seen. We would be swimming 700 metres to the other side of Vincenzia Bay, aiming for a tiny flashing red light. 'Let's start in alphabetical order,' Chloe said. 'Andrew, you're going to lead us out.'

As I fumbled to tie the waterproof bag around my waist, I whipped myself into a panic thinking about swimming in the freezing-cold water. But I couldn't tell Chloe and the rest of the crew I was scared, or that I felt like quitting, so I took a deep breath, walked into the icy water, put my head down and started swimming. My inner voice was chanting negative thoughts at me. It was 5.01 am and everything around me was pitch-black.

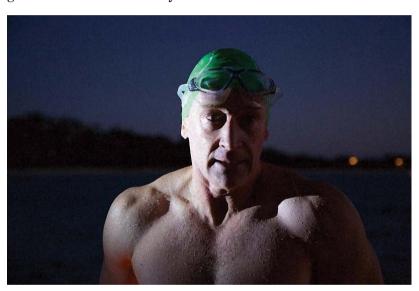
Just 300 metres into the swim, I felt a wave of anxiety sweep over me. Short, sharp breaths, a feeling of tension in my body, and a loss of clarity and rational control of the brain. I stopped swimming and trod water. Two swimmers went past me, each asking, 'Are you okay?'

'Yep, just trying to adjust my safety device,' I lied.

Then my brain went into overdrive: This is stupid! Why are you doing this? What are you trying to prove? You're not a swimmer – you cycle, and run, and lift weights. And sharks live in the ocean! Brian said you swim like a drunk snake! Vlad said you're a superstiff! What the hell do you think you're doing out here?

Thoughts raced through my brain like a convoy of train carriages, each one with a different self-limiting belief about why I shouldn't be doing this stupid challenge. And the last carriage was dedicated entirely to Tash: it had bold letters emblazoned all over it, saying, 'F\*#k you, Tash!'

This was my 'sliding doors' moment. I had two options. Turn back, admit defeat and accept the ridicule and banter and deflation of giving up. Or calm down, relax and get it together. I chose the latter. I put my head back into the water, focused on taking long and relaxed breaths, and muttered, 'Stay calm, be strong, you've got this.' I repeated this for 10 minutes, and by then I was in a rhythm and had switched from a feeling of panic to a feeling of being alive, challenged, stretched. Tash was right – I did need to get out of my comfort zone. I had been playing the same game. And this was exactly where I needed to be.



By the end of that weekend I had swum over 18 kilometres at an average speed of over three kilometres per hour. Remember, just six months earlier I had swum one kilometre in 23 minutes. Back then there was no way I thought I'd be capable of swimming anywhere near that much in two days. This shows the power of setting a stretch goal, making yourself accountable, reauthoring your limiting self-talk, being disciplined and staying committed – and the power of a friendly push from Tash, as I would have never tackled this by myself.

It was while driving home on the Sunday evening that, for the first time, I really believed I could do this. Sure, I'd put on a brave face during the training, but underneath I'd been nervous and

fearful. Now I believed. The training and coaching and discipline and overcoming challenges had paid off. I felt a shift in my entire approach.

At 2.30 am on Wednesday, 2 August, Tash, Tim, Megs and I met our skipper, Andy, on the dark and quiet port of Dover. Tash dove into the water and swam for an hour. Then Timmy took off and ploughed away for his first shift, followed by Megs. I jumped in at 6.13 am for my first stint. I tried to find my rhythm, but



after five minutes I could feel panic building. But this time I knew what to do: 'Stay calm, be strong, you've got this.' Around 6.23 am I felt a smile on my face and a wave of calm ripple across my body. I was in the English Channel, swimming my little arse off.

We rotated every four hours, swimming for one

hour each. When I was getting ready to dive in for my third stint, Andy said, 'If you get your act together and swim your balls off, we might miss the strong change in tide and get across to land before the lighthouse.' For the next 60 minutes I swam harder than ever. At the halfway point I remember feeling challenged, yet invigorated. I missed getting across before the tide changed, but for the first time in my life I felt euphoric in the water. I was in flow, completely in the moment.

With 10 minutes remaining, I could feel my shoulders, lats and lungs screaming. I knew I was tipping over the anaerobic threshold, where lactic acid builds up in your body, but I was on the home straight. At the five-minute call I picked up my kick until the whistle blew once more, and Tash jumped into the water to power through her fourth leg of the day and get us to the shore of France. Watching a bunch of French strangers run across the beach at Wissant to cheer and clap Tash was brilliant. The swim had been her brain child, so it was awesome to see her complete our journey.

# LESSONS FROM THE ENGLISH CHANNEL

Fear can make you feel alive: Full engagement is a blend of doing what works for you (habit and routine) and periodically scaring the living daylights out of yourself. While I wouldn't advocate a challenge like this every year (maybe every three to five), the swim pushed me way out of my comfort zone. I felt totally alive.

Positive peer pressure stretches you beyond your limits: There is simply no way I would have contemplated doing a swim like this if Tash hadn't bullied – correction, encouraged – me to do it. This shows the power of peer pressure and making yourself accountable to others.

You are never too old to learn (or unlearn): I had been 'going to improve my swimming' every year for the past 10 years. As each summer ticked over, I would think about getting some lessons or joining a squad, as I knew proper technique makes a huge difference. But until Tash filled out my form, I had no reason to do this. Learning a new technique was challenging, but I felt so much better when I'd got it. Overcoming some of my fears and knowing I was learning and embedding a new skill made other parts of my brain feel alive too.

Having a higher purpose is important: When my morning alarm went off, it would have been easy to stay in bed. When you have a cause that is more than just getting fit, you are much more likely to stick to your commitment. Two factors that gave me a higher purpose were: (a) providing a positive example to my children of setting and sticking to a goal; and (b) supporting Tash to create a legacy for the non-profit organisation Soldier On, providing an opportunity for veterans to find peace and opportunity following their courageous service to our country. Our swim raised over \$60,000.

I (now) really like swimming! After my terrible first swim on the Gold Coast, and the shark encounter, and the feedback that I swam like a drunk snake and was super-stiff, and the anxiety attack, and the moments dreading diving into the cold English Channel – after all that, I now really do like swimming! It's a permanent fixture in my Better Week.







emember at the start when I said MatchFit is three things:

- 1. A Metric: measured by the MatchFit Calculator.
- 2. A Feeling: energetic, vibrant and fresh.
- 3. A Way of Living: optimising your body and brain.

Achieving and staying MatchFit requires work. There will be days where it feels easy, effortless, in flow. Then there are those other days where everything feels hard, difficult, a struggle. That's the reality of life – ups and downs, periods of ease followed by challenge. Staying connected and being part of the MatchFit tribe will keep you accountable and help you strive when you need. Here are a few suggestions.

### **GET SOCIAL**

Go to andrewmay.com and connect with me on LinkedIn, Instagram, Twitter, Facebook, YouTube and Strava (my favourite fitness App) and read my regular blogs. I post regular updates on how I manage work and life, along with the latest findings in human performance, wellbeing, productivity and leadership.



# THE AM EDITION

My monthly *AM Edition* eNewsletter includes news, blogs, media updates, research on all things human performance, as well as case studies and product updates. Throughout the month we also send one or two short, sharp updates.



# LISTEN IN

Grab your headphones and check out my podcast where I interview a range of high performers in sport, entertainment, science and the arts. I examine how they sustain performance, overcome adversity and build strength in all areas of their life.

# **ONLINE PROGRAMS**

We have a range of innovative online learning, audio, video and membership programs that provide you with access to the latest evidence-based, practical information to keep your body and brain in peak condition. These include:

# MatchFit in 8 Weeks (MF8)

The perfect accompaniment to MatchFit book, MF8 supports you to achieve your personal best and to MOVE, FUEL, RECHARGE, THINK, PLAY and CONNECT like a high performer. MF8 is a multi-media platform built by experts in learning and behavioural change. We can tailor company-specific MF8 programs for 50 participants or more.

# 6 Week Shred (6WS)

A scientifically-validated 6-week online program guaranteed to strip fat, improve confidence and boost energy. The average 6WS participant loses more than 4kg of fat, reduces waist measurement by over 6cm and improves energy levels by 20%. 6WS teaches you all about the science of fat loss and we deliver four public 6WS programs throughout the year.

### **Flourish**

Flourish teaches you to activate the relaxation response, be more resilient, reduce stress, increase mental calmness, improve focus and presence. A 6-week online course incorporating a balance of performance psychology (relaxation training, mindfulness, imagery, visualisation, performance routines) with practical training to reinforce learning.

# MatchFit Library (MFL)

MFL includes an Exercise Vault with guided exercise sessions based on your current fitness level; a Recipe Library with healthy meals to prepare for breakfast, lunch, dinner and snacks; a Recovery Wardrobe with activities to recharge the body and brain; and a Brain Gym to optimise cognitive function, creativity and performance. Fresh content is added every month. You gain access to MFL when you enrol in MF8, 6WS or Flourish.

# PQ University (PQU)

After graduating from any of the above premium courses, you can join our world-class PQ University. PQU is a monthly subscription that includes all of our digital calculators, simulators, performance dashboards, inspiring stories, digestible research, monthly forums, group coaching, MatchFit Library and connection to the StriveStronger community. PQU membership also gives you a 50% discount on any future premium courses you enrol in. andrewmay.com/pquniversity

# **PUBLIC PROGRAMS**

We offer a number of public events to take our offering broader than just executive teams or company-wide wellbeing programs.



# Human Performance Academy

The Academy has been more than two decades in the making and combines my experience as an elite athlete and performance coach of Olympic athletes and national sporting teams. It includes my studies of the body and the brain plus my experience building and selling three successful businesses and delivering corporate programs for thousands of individuals around the world. The Academy will take your energy levels, passion and fulfilment to an entirely new level.



# Entrepreneur Bootcamp

A two-day course covering everything you need to know to launch or grow a successful practice - with you as the expert. Learn a proven methodology to present keynotes, deliver corporate programs, coach businesspeople and athletes. Discover how to write a blog, books and secure a publishing deal. Create digital assets, assessment tools, podcasts, information products, online programs and position yourself as an expert regularly appearing in the media.



# Certified Performance Coach

Developed with some of the world's leading executive and performance coaches. We provide you with the knowledge, templates and coaching tools to launch or accelerate a coaching business. A prerequisite to attending is graduating from the Human Performance Academy and completing an online application (we don't just take anyone into this program - you have to be ready and committed).

andrewmay.com/courses



# **ENDNOTES**

#### Introduction

 The most accepted definition of 'health' is the one that appears in the World Health Organization's constitution: 'A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (Constitution of the World Health Organization, October 2006). An alternative definition - one I like - is Dietrich Bonhoeffer's: 'the strength to be' (see D. Misselbrook (2014) 'W Is for Wellbeing and the WHO Definition of Health', The British Journal of General Practice, 64 (628), 582).

#### Chapter 1 The Perfect Storm

Australian Institute of Health and Welfare (AIHW)
(2018) 'Mental Health Services in Australia',
available at: https://www.aihw.gov.au/reports/mental-health-services-in-australia/
report-contents/summary-of-mental-health-services-in-australia, accessed 12 November 2018. Black
Dog Institute (2018) 'Types of Depression', available
at: https://www.blackdoginstitute.org.au/clinical-resources/depression/types-of-depression, accessed
12 November 2018. Mayo Clinic (2017) 'Persistent
Depressive Disorder', available at: https://www.
mayoclinic.org/diseases-conditions/persistent-depressive-disorder/symptoms-causes/syc-20350929,
accessed 12 November 2018.

### Chapter 2 Health and Wellbeing Through the Decades

- B. Hyman, G. Oden & M. Wagner (2010) The Aging Process: Physiological Changes and Implications for Educators and Practitioners, Activities, Adaptation & Aging, 34 (2), 148–153.
- Australian Institute of Health and Welfare (2018) Deaths in Australia, Canberra, AIHW, available at: https://www.aihw.gov.au/reports/life-expectancy-death/deaths-in-australia/contents/life-expectancy
- J. Oeppen & J.W. Vaupel (2001) 'Broken Limits to Life Expectancy', Science, 296 (5570), 1029–1031.
- K. Keller & M. Engelhardt (2014) 'Strength and Muscle Mass Loss with Aging Process: Age and Strength Loss', Muscles, Ligaments and Tendons Journal, 3 (4), 346-50. S.B. Roberts & D.F. Williamson (2002) 'Causes of Adult Weight Gain', The Journal of Nutrition, 132 (12), 38245-38255.
- A. Steptoe, A. Deaton & A.A. Stone (2014) Subjective Wellbeing, Health, and Ageing, The Lancet, 385 (9968), 640–648. M.E. Lachman, S. Teshale & S. Agrigoroaei (2014) Midlife as a Pivotal Period in the Life Course: Balancing Growth and Decline at the Crossroads of Youth and Old Age, International Journal of Behavioral Development, 39 (1), 20–31.
- M.P. St-Onge & D. Gallagher (2009) 'Body Composition Changes with Aging: The Cause or the Result of Alterations in Metabolic Rate and Macronutrient Oxidation?', Nutrition, 26 (2), 152–55.
- K.D. Kochanek, S.L. Murphy, J.Q. Xu & E. Arias (2017) Mortality in the United States, 2016. NCHS Data Brief, no. 293. Hyattsville, MD: National Center for Health Statistics.
- M. Ng, T. Fleming, M. Robinson et al. (2014) 'Global, Regional, and National Prevalence of Overweight

- and Obesity in Children and Adults during 1980-2013: A Systematic Analysis for the Global Burden of Disease Study 2013', *The Lancet*, 384 (9945), 766–81. N. Thomas et al. (2017) 'Screen Media Exposure and Obesity in Children and Adolescents', *Pediatrics*, 140 (Suppl. 2): S97–S101.
- Australian Institute of Health and Welfare (2017) Risk Factors to Health, Canberra, AlHW, available at: https://aihw.gov.au/reports/biomedical-risk-factors/ risk-factors-to-health/contents/insufficient-physical-activity.
- J.G. Johnson et al. (2004) 'Association between Television Viewing and Sleep Problems during Adolescence and Early Adulthood', Archives Pediatrics Adolesc Med., 158 (6): 562.
- 11. Columbia University's Mailman School of Public Health (2017) 'Depression Is on the Rise in the US, Especially Among Young Teens', Science Daily, available at: sciencedaily.com/releases/2017/10/171030134631.htm, accessed 4 September 2018. D. Maybery, A. Reupert, K. Patrick, M. Goodyear & L. Crase (2009) 'Prevalence of Parental Mental Illness in Australian Families', Psychiatric Bulletin, 33 (1), 22–26. Australian Institute of Health and Welfare (2018) 'Mental Health Services in Australia', available at: https://aihw.gov.au/reports-statistics/health-welfare-services/mental-health-services/overview, accessed 12 November 2018.
- Centres for Disease Control and Prevention (2012)
   Principles of Epidemiology in Public Health Practice:
   An Introduction to Applied Epidemiology and Biostatistics (third edition), U.S. Department of Health and Human Services, available at: https://cdc.gov/ophss/csels/dsepd/ss1978, accessed 21 June 2018.
- 13. World Health Organization (2016) 'Physical Inactivity', available at: who.int/dietphysicalactivity/pa/en.
- 'Últra-Processed Food Consumption and Chronic Non-Communicable Diseases-Related Dietary Nutrient Profile in the UK (2008–2014)' F. Rauber, M. L. da Costa Louzada & E.M. Steel (2018), Nutrients, 10 (5): 587.
- Mental Health Foundation (2014) Living with Anxiety: Understanding the role and impact of anxiety in our lives, available at: https://mentalhealth.org.nz/assets/A-Z/Downloads/Living-with-anxiety-report-MHF-UK-2014.pdf, accessed 12 November 2018.
- L.A. Lytle, S.G. Moe, M.S. Nanney, M.N. Laska & J.A. Linde (2014) 'Designing a Weight Gain Prevention Trial for Young Adults: The CHOICES Study', American Journal of Health Education, 45 (2), 67-75.
- D.E. Warburton, C.W. Nicol & S.S. Bredin (2006)
   'Health Benefits of Physical Activity: The Evidence',
   CMAJ: Canadian Medical Association Journal, 174
   (6), 801–09. S.N. Blair & S. Brodney (1999) 'Effects
   of Physical Inactivity and Obesity on Morbidity and
   Mortality: Current Evidence and Research Issues',
   Med Sci Sports Exerc, 31: S646–62.
- E.W. Hagen, A.G. Mirer, M. Palta & P.E. Peppard (2013) 'The Sleep-time Cost of Parenting: Sleep Duration and Sleepiness Among Employed Parents in the Wisconsin Sleep Cohort Study', *American Journal of Epidemiology*, 177, 394–401.
- E. Ankudowich, S. Pasvanis & M.N. Rajah (2016)
   'Changes in the Modulation of Brain Activity during
   Context Encoding vs. Context Retrieval Across the
   Adult Lifespan', NeuroImage, 139: 103.
- 20. J.D. Veldhuis (2003) 'Changes in Pituitary Function

- with Ageing and Implications for Patient Care', *Nat Rev Endocrinol*, 9: 205–15.
- J.D. Berry, A. Dyer, X. Cai, D.B. Garside, H. Ning, A. Thomas, P. Greenland, L. Van Horn, R.P. Tracy & D.M. Lloyd-Jones (2012) 'Lifetime Risks of Cardiovascular Disease', N Engl J Med, 366 (4), 321–29.
- 22. D.L. Murman (2015) 'The Impact of Age on Cognition', Seminars in Hearing, 36 (3), 111–21.
- L. Seematter-Bagnoud & B. Santos-Eggimann (2006) 'Population-based Cohorts of the 50s and Over: A Summary of Worldwide Previous and Ongoing Studies for Research on Health in Ageing', European Journal of Ageing, 3 (1), 41. doi:10.1007/s10433-006-0027-4.
- L. Hayflick & P.S. Moorhead (1961) 'The Serial Cultivation of Human Diploid Cell Strains', Experimental Cell Research, 25, 585–621.
- Z. Corbyn (2017) 'Elizabeth Blackburn on the Telomere Effect: "It's about keeping healthier for longer", The Guardian, 29 January 2017, available at: https://theguardian.com/science/2017/ jan/29/telomere-effect-elizabeth-blackburn-nobel-prize-medicine-chromosomes.
- D. Buettner (2017) '9 Lessons from the World's Blue Zones on Living a Long, Healthy Life', World Economic Forum, 26 June 2017, available at: https://weforum.org/agenda/2017/06/changing-the-way-america-eats-moves-and-connects-one-town-at-a-time.
- N.A. Christakis & J.H. Fowler (2007) 'The Spread of Obesity in a Large Social Network over 32 Years', New England Journal of Medicine, 357, 370–79.
- A. Sowa, B. Tobiasz-Adamczyk, R. Topór-Mądry, A. Poscia & D.I. la Milia (2016) 'Predictors of Healthy Ageing: Public Health Policy Targets', *BMC Health Services Research*, 16 (Suppl 5), 289. doi:10.1186/s12913-016-1520-5. T.D. Cosco, A.M. Prina, J. Perales, B.C.M. Stephan & C. Brayne (2014) 'Operational Definitions of Successful Aging: A Systematic Review', *Int Psychogeriatr*, 26 (3), 373-81.

## Chapter 4 Performance Moments

- M. Csikszentmihalyi (2008) Flow: The Psychology of Optimal Experience, New York, Harper Perennial Modern Classics.
- A. Poczwardowski (2017) 'Deconstructing Sport and Performance Psychology Consultant: Expert, Person, Performer, and Self-regulator', International Journal of Sport and Exercise Psychology, 1–18.
- C.J. Limb & A.R. Braun (2008) 'Neural Substrates of Spontaneous Musical Performance: An fMRI Study of Jazz Improvisation', PLOS One, 3 (2), e1679; Y. Mao et al. (2016) 'Optimal Experience and Optimal Identity: A Multinational Study of the Associations between Flow and Social Identity', Frontiers in Psychology, 7, 67; P.E. Mallet & R.J. Beninger (1996) 'The Endogenous Cannabinoid Receptor Agonist Anandamide Impairs Memory in Rats', Behavioural Pharmacology, 7 (3), 276-84.
- J. Loehr & J. Groppel (2008) 'The Corporate Athlete Advantage: The Science of Deepening Engagement, Human Performance Institute Publication'.
- New York Post (2017) 'Americans Check their Phones 80 Times a Day: Study', New York Post, 8 November 2017, available at: https://nypost.com/2017/11/08/ americans-check-their-phones-80-times-a-daystudy.
- G. Mark, D. Gudith & U. Klock (2015) 'The Cost of Interrupted Work: More Speed and Stress', available

- at: ics.uci.edu/~gmark/chi08-mark.pdf.
- W.C. Orr, H.J. Hoffman & F.W. Hegge (1974) 'Ultradian Rhythms in Extended Performance', Aviation, Space, and Environmental Medicine, 45, 995–1000.
- Charted Management Institute (2018) 'How to Concentrate: Scientists Have Discovered the Exact Length of Break You Need for Maximum Productivity', available at: managers.org.uk/insights/ news/2018/may/how-to-concentrate-scientistshave-discovered-the-length-of-break-you-need-foroptimum-productivity.
- A.J. Horner & R.N. Henson (2008) 'Priming, Response Learning and Repetition Suppression', Neuropsychologia, 46 (7), 1979–91.

#### Chapter 5 Plan

- J. Luciani (2015) 'Why 80 Percent of New Year's Resolutions Fail', U.S. News & World Report, 29 December 2015, available at: https://health.usnews.com/health-news/blogs/eat-run/articles/2015-12-29/why-80-percent-of-new-years-resolutions-fail.
- M. Murphy (2018) 'Neuroscience Explains Why You Need To Write Down Your Goals If You Actually Want To Achieve Them', Forbes, 15 April 2018, available at: www.forbes.com/sites/markmurphy/2018/04/15/neuroscience-explains-why-youneed-to-write-down-your-goals-if-you-actuallywant-to-achieve-them/#12440e0d7905.
- S. Friedman (n.d.) 'Setting and Getting to Your Goal', Progressive Management Associates, available at: http://pma-co.com/setting-and-getting-to-yourgoal
- F.F. Sniehotta, U. Scholz & R. Schwarzer (2005) 'Bridging the Intention-Behaviour Gap: Planning, Self-efficacy, and Action Control in the Adoption and Maintenance of Physical Exercise', Psychology & Health. 20 (2). 143-160.
- J. Polivy & P. Herman (2000) 'The False-Hope Syndrome: Unfulfilled Expectations of Self-Change', Current Directions in Psychological Science, 9 (4), 128–131.
- B. Wiese & A. Freund (2005) 'Goal Progress Makes One Happy, or Does It? Longitudinal Findings from the Work Domain', Journal of Occupational and Organizational Psychology, 78, 287–304.
- Australian Institute of Health and Welfare (2017)
   Behaviours & Risk Factors, 17 July 2017, available at: www.aihw.gov.au/reports-data/behaviours-risk-factors.
- A. Ambrose, M.F. Harris & A. Ampt (2009) 'The 45 Year Old Health Check: Feasibility and Impact on Practices and Patient Behaviour', *Australian Family Physician*, 38 (5).
- B. Renner, G. Sproesser, S. Strohbach & H.T. Schupp (2012) 'Why We Eat What We Eat: The Eating Motivation Survey (TEMS)', Appetite, 59 (1), 117–28.
- C. Colantuóni, J. Schwenker, J. McCarthy et al. (2001) 'Excessive Sugar Intake Alters Binding to Dopamine and Mu-opioid Receptors in the Brain', NeuroReport, 12 (16), 3549-52.
- Black Dog Institute (n.d.) 'When to Seek Help', available at: www.blackdoginstitute.org.au/getting-help/seeking-help/when-to-seek-help.

## Chapter 6 Move

P. Heyn, B.C. Abreu & K.J. Ottenbacher (2004)
 'The Effects of Exercise Training on Elderly Persons
 with Cognitive Impairment and Dementia: A

- Meta-analysis', Archives of Physical Medicine and Rehabilitation, 85 (10), 1694–1704; L. Bherer, K.I. Erickson & T. Liu-Ambrose (2013) 'A Review of the Effects of Physical Activity and Exercise on Cognitive and Brain Functions in Older Adults', Journal of Aging Research, 2013, 8.
- Puet T, W, Flowers S, S, O'Connor P, J: A (2008) 'Randomized Controlled Trial of the Effect of Aerobic Exercise Training on Feelings of Energy and Fatigue in Sedentary Young Adults with Persistent Fatigue', Psychother Psychosom, 77:167-174.
- Agras, W.S., & Mascola, A.J. (2005) 'Risk factors for childhood overweight', Current Opinion in Pediatrics, 17(5), 648–652. doi:10.1097/01. mop.0000172818.87261.ab.
- Blackdog Institute, 'Exercise and Depression'
  https://blackdoginstitute.org.au/docs/defaultsource/factsheets/exercise\_depression.pdf,
  accessed 31 March 2019
  Mayo Clinic (2017), 'Depression and anxiety:
  Exercise eases symptoms, available at: https://www.
  mayoclinic.org/diseases-conditions/depression/
  in-depth/depression-and-exercise/art-20046495,
  accessed 21 March 2019.
- Beyond Blue (2019) 'Statistics', available at: https:// www.beyondblue.org.au/media/statistics, accessed 10 March 2019.
- M. Babyak, J.A. Blumenthal, S. Herman, P. Khatri, M. Doraiswamy, K. Moore, W. Edward Craighead, T.T. Baldewicz & K. Ranga Krishnan (2000) 'Exercise Treatment for Major Depression: Maintenance of Therapeutic Benefit at 10 Months', Psychosomatic Medicine, 62 (5), 633-638.
- C. Yip, S. Sarma & P. Wilk (2016) 'The Association between Social Cohesion and Physical Activity in Canada: A Multilevel Analysis', Population Health, 2, 718–723.
- M.T. Hamilton, D.G. Hamilton & T.W. Zderic (2007)
   'The Role of Low Energy Expenditure and Sitting on
   Obesity, Metabolic Syndrome, Type 2 Diabetes, and
   Cardiovascular Disease', Diabetes, published online
   7 September 2007, available at: http://diabetes.
   diabetesjournals.org/content/early/2007/09/18/
   db07-0882.short.
- H.P. Van der Ploeg et al. (2012) 'Sitting Time and All-Cause Mortality Risk in 222,497 Australian Adults', Archives of Internal Medicine, 172 (6), 494–500.
- R. Sanghani (2013) 'Young Adults Only Walk Five Minutes a Day "Because of Technology", The Telegraph, available at: https://www.telegraph.co.uk/ technology/news/10389466/Young-adults-onlywalk-five-minutes-a-day-because-of-technology. html
- J.L. Veerman et al. (2012) 'Television Viewing Time and Reduced Life Expectancy: A Life Table Analysis', British Journal of Sports Medicine, 46, 927-930;
   M. Shaw, R. Mitchell & D. Dorling (2000) 'Time for a Smoke? One Cigarette Reduces Your Life by 11 Minutes', British Medical Journal, 320, 53.
- L.L Foster & J.A. Levine (2010) 'Energy Expenditure in Children: The Role of NEAT (Non-exercise Activity Thermogenesis)', in Machogenesis and Treatment, Obesity: Etiology, Pathogenesis and Treatment, Springer, p. 308.
- Department of Health (2017) 'Australia's Physical Activity and Sedentary Behaviour Guidelines', available at: http://www.health.gov.au/internet/main/publishing.ns/fcontent/health-pubhlth-strateg-phys-act-guidelines.

- M.M. Robinson et al. (2017) 'Enhanced Protein Translation Underlies Improved Metabolic and Physical Adaptations to Different Exercise Training Modes in Young and Old Humans', Cell Metabolism, 25 (3), 581.
- M.M. Robinson et al. (2017) 'Enhanced Protein Translation Underlies Improved Metabolic and Physical Adaptations to Different Exercise Training Modes in Young and Old Humans', Cell Metabolism, 25 (3), 581.
- A. Currais (2015) 'Ageing and Inflammation: A Central Role for Mitochondria in Brain Health and Disease', Ageing Research Reviews, 21, 30–42.
- G. Lopez-Lluch (2008) 'Mitochondrial Biogenesis and Healthy Aging', Experimental Gerontology, 43 (9), 813–19.
- J. Zhang, J. Ma & G.F. Wang (2014) 'Effects of Longterm Sleep Deprivation on Mitochondria Stress in Locus Coeruleus and the Tyrosine Hydroxylasic Projection in Mice', Zhongguo Ying Yong Sheng Li Xue Za Zhi [Chinese Journal of Applied Psychology], 30 (2), 153-56.
- E. Kemppainen et al. (2016) 'Mitochondrial Dysfunction Plus High-Sugar Diet Provokes a Metabolic Crisis That Inhibits Growth', PLOS One, 11 (1), e0145836.
- N. Chung, J. Park & K. Lim (2017) 'The Effects of Exercise and Cold Exposure on Mitochondrial Biogenesis in Skeletal Muscle and White Adipose Tissue', Journal of Exercise Nutrition and Biochemistry. 21 (2), 39–47.
- Ricca, C., Aillon, A., Bergandi, L., Alotto, D., Castagnoli, C., & Silvagno, F. (2018). Vitamin D Receptor Is Necessary for Mitochondrial Function and Cell Health. International journal of molecular sciences, 19(6), 1672
- Chen, T., Tan, J., Wan, Z., Zou, Y., Afewerky, H. K., Zhang, Z., & Zhang, T. (2017). Effects of Commonly Used Pesticides in China on the Mitochondria and Ubiquitin-Proteasome System in Parkinson's Disease. International journal of molecular sciences, 18(12), 2507.
- Groennebaek, T., & Vissing, K. (2017). Impact of Resistance Training on Skeletal Muscle Mitochondrial Biogenesis, Content, and Function. Frontiers in physiology, 8, 713.
- Ungvari, Z., Sonntag, W. E., de Cabo, R., Baur, J. A., & Csiszar, A. (2011). Mitochondrial protection by resveratrol. Exercise and sport sciences reviews, 39(3), 128-32.
- Jenkins EM, Nairn LN, Skelly LE, et al. (2019) 'Do Stair Climbing Exercise "Snacks" Improve Cardiorespiratory Fitness?' Appl Physiol Nutr Metab. doi: 10.1139/apnm-2018-0675. [ePub ahead of print] Allison MK, Baglole JH, Martin BJ, Macinnis MJ, Gurd BJ, Gibala MJ. (2017) Med Sci Sports Exerc. 2017 Feb;49(2):298-307. 'Intense Stair Climbing Improves Cardiorespiratory Fitness'.
   Berry, S. (2019). 'A 20-second "exercise snack" can improve your health and fitness', The Sydney Morning Herald, availible at: https://www.smh.com.au/lifestyle/health-and-wellness/a-20-second-exercise-snack-can-improve-your-health-and-fitness-20190129-p50ua9.html.
- Penedo, F.J., & Dahn, J.R. (2005). 'Exercise and well-being: a review of mental and physical health benefits associated with physical activity', Current Opinion in Psychiatry, 18(2), 189–193.
   Warburton, D, Whitney, C, Bredin, S. (2006) 'Health

Tully, M.A., Cupples, M.E., Chan, W.S., McGlade, K., & Young, I. S. (2005). 'Brisk walking, fitness, and cardiovascular risk: A randomized controlled trial in primary care', *Preventive Medicine*, 41(2), 622–628. Sothern, M., Loftin, M., Suskind, R. et al. (1999)

'The health benefits of physical activity in children

and adolescents: implications for chronic disease

benefits of physical activity: the evidence', CMAJ

prevention', Eur J Pediatr. 158: 271.

27. Ho, S. S., Dhaliwal, S. S., Hills, A. P., & Pal, S. (2012).
The effect of 12 weeks of aerobic, resistance or combination exercise training on cardiovascular risk

factors in the overweight and obese in a randomized

- trial. BMC public health, 12, 704.

  28. Beavers, K. M., Ambrosius, W. T., Rejeski, W. J., et al. (2017), Effect of Exercise Type During Intentional Weight Loss on Body Composition in Older Adults with Obesity. Obesity, 25: 1823-1829.
- Stavres, Jon & P Zeigler, Mcauley & P Bayles, Madeline. (2018). Six weeks of moderate functional resistance training increases basal metabolic rate in apparently healthy adult women. International Journal of Exercise Science. 11. 32-41.
- Boutin R et al., 'Sarcopenia: Current Concepts and Imaging Implications', American Journal of Roentgenology, 2015;205: W255-W266. 10.2214/ AJR.15.14635.
- Faulkner JA, Larkin LM, Claflin DR, Brooks SV, 'Age-related changes in the structure and function of skeletal muscles', Clin Exp Pharmacol Physiol 2007; 34:1091–1096.
- Marcell T. 'Sarcopenia: Causes, Consequences, and Preventions', Journal of Gerontology: MEDICAL SCIENCES, 2003, Vol. 58A, No. 10, 911–916.
- Behnaz Abiri & Mohammadreza Vafa (2017)
   'Nutrition and sarcopenia: A review of the evidence of nutritional influences, Critical Reviews in Food Science and Nutrition', DOI: 10.1080/10408398.2017.1412940
- Nowson C and Stella O'Connell, 'Protein Requirements and Recommendations for Older People: A Review', Nutrients, 2015 Aug; 7(8): 6874–6899.
- Seliger, S. (n.d.) 'Yoga for Stress Management', WebMD, available at: www.webmd.com/fitness-exercise/features/yoga-for-stress-management.
- Mayo Clinic, 'Yoga: Flight stress and find serenity. Healthy Lifestyle: Stress management', https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/yoga/art-20044733.
- Rocha, K. K. F., Ribeiro, A. M., Rocha, K. C. F., et al. (2012). Improvement in physiological and psychological parameters after 6months of yoga practice. Consciousness and Cognition, 21(2), 843-850.
   McAuley, E., Gothe, N. P., & Kramer, A. F. (2014). The Effects of an 8-Week Hatha Yoga Intervention on Executive Function in Older Adults. The Journals of Gerontology: Series A, 69(9), 1109-1116.
- Zmijewski, C. (2014) Activate the Parasympathetic Nervous System to Improve Recovery. Exercise Science. Available at: https://www.ptonthenet.com/ articles/activate-the-parasympathetic-nervous-system-to-improve-recovery-3910
- C. Swann, 'Flow in Sport', in L. Harmat, F. Orsted, F. Andersen, F. Ullen, J. Wright & G. Sadlo (eds.) (2016) Flow Experience: Empirical Research and Applications, pp. 51-64, Switzerland, Springer International Publishing.
- 40. L. Hagberg et al. (2008) 'Importance of Enjoyment

- when Promoting Physical Exercise', *Scandinavian Journal of Medicine and Science in Sports*, 19 (5), 740–07.
- 41. D. Singla & Z. Veqar (2014) 'Methods of Postural Assessment Used for Sports Persons', Journal of Clinical & Diagnostic Research, 8 (4), LE01-LE04.

#### Chapter 7 Fue

- L. Schwingshackl, C. Schwedhelm, G. Hoffmann et al. (2017) 'Food Groups and Risk of All-cause Mortality: A Systematic Review and Meta-analysis of Prospective Studies', American Journal of Clinical Nutrition, 105 (6), 1462–1473. J.P.A. loannidis (2018) 'The Challenge of Reforming Nutritional Epidemiologic Research', JAMA, 320 (10), 969–970.
- R.J. de Souza, A. Mente, A. Maroleanu et al. (2015) 'Intake of Saturated and Trans Unsaturated Fatty Acids and Risk of All Cause Mortality, Cardiovascular Disease, and Type 2 Diabetes: Systematic Review and Meta-analysis of Observational Studies', British Medical Journal, 11, 351, h3978.
- P.W. Meta-Siri-Tarino, Q. Sun, F.B. Hu, R.M. Krauss (2010) Meta-analysis of Prospective Cohort Studies Evaluating the Association of Saturated Fat with Cardiovascular Disease', American Journal of Clinical Nutrition, 91 (3), 535-46.
- A. Keys, C. Aravanis, H. Blackburn et al. (1980) Seven Countries: A Multivariate Analysis of Death and Coronary Heart Disease, Cambridge, Harvard University Press.
- World Health Organization (2015) 'WHO Calls on Countries to Reduce Sugars Intake among Adults and Children', press release, available at: www.who. int/mediacentre/news/releases/2015/sugar-guideline/en, accessed 18 November 2018; American Heart Association (2018) 'Added Sugars', available at: www.heart.org/en/healthy-living/healthy-eating/eat-smart/sugar/added-sugars, accessed 18 November 2018.
- Australian Bureau of Statistics (2016) Australian Health Survey: Consumption of added sugars, 2011-12. https://www.abs.gov.au/ausstats/abs@.nsf/ Lookup/4364.0.55.011main+features12011-12.
- P. Gkoʻgkolou & M. Böhm (2012) 'Advanced Glycation End Products: Key Players in Skin Aging?' Dermato-endocrinology, 4 (3), 259-70.
- M. Dehingia, K. Thangjam devi, N.C. Talukdar et al. (2015) 'Gut Bacterial Diversity of the Tribes of India and Comparison with the Worldwide Data', Scientific Reports. 5. 18563.
- Y.K. Chan, M. Estaki & D.L. Gibson (2013) 'Clinical Consequences of Diet-induced Dysbiosis', Annals of Nutrition and Metabolism, 63 (suppl. 2), 28-40.
- Y.K. Chan, M. Estaki & D.L. Gibson (2013) 'Clinical Consequences of Diet-induced Dysbiosis', Annals of Nutrition and Metabolism, 63 (suppl. 2), 28–40.
- T.G. Dinan & J.F. Cryan (2017) 'The Microbiome-Gut-Brain Axis in Health and Disease', Gastroenterology Clinics of North America, 46 (1), 77–89.
- J. Higdon & V.J. Drake (2003) An Evidence-Based Approach to Phytochemicals and Other Dietary Factors. New York, Thieme Medical Publishers Inc.
- N. Banerjee (2014) 'Neurotransmitters in Alcoholism: A Review of Neurobiological and Genetic Studies', Indian Journal of Human Genetics, 20 (1), 20–31
- C. Leitzmann (2016) 'Characteristics and Health Benefits of Phytochemicals', Research in Complementary Medicine, 23 (2), 69–74.

- J. Higdon & V.J. Drake (2003) An Evidence-Based Approach to Phytochemicals and Other Dietary Factors. New York, Thieme Medical Publishers Inc.
- J. Higdon (2003) An Evidence-based Approach to Vitamins and Minerals: Health Implications and Intake Recommendations, New York, Thieme Medical Publishers Inc.
- J. Higdon (2003) An Evidence-based Approach to Vitamins and Minerals: Health Implications and Intake Recommendations, New York, Thieme Medical Publishers Inc.
- V. Lobo, A. Patil, A. Phatak, N. Chandra (2010) 'Free Radicals, Antioxidants and Functional Foods: Impact on Human Health', Pharmacognosy Reviews, 4 (8), 118-26
- Horne BD, Muhlestein JB, Anderson JL. Health effects of intermittent fasting: hormesis or harm? A systematic review. The American Journal of Clinical Nutrition. 2015;102(2):464-70).
- B.D. Horne, H.T. May, J.L. Anderson et al. (2008) 'Usefulness of Routine Periodic Fasting to Lower Risk of Coronary Artery Disease among Patients Undergoing Coronary Angiography', American Journal of Cardiology, 102 (7), 814-19.
- B.D. Horne, J.B. Muhlestein & D.L. Lappé (2013) 'Randomized Cross-over Trial of Short-term Water-only Fasting: Metabolic and Cardiovascular Consequences', Nutr Metab Cardiovasc Dis, 23 (11), 1050-57.

#### Chapter 8 Recharge

- E. Blix, A. Perski, H. Berglund & I. Savic (2013)
   'Long-term Occupational Stress Is Associated with
   Regional Reductions in Brain Tissue Volumes', PLOS
   One, 8: e64065. P. Deligkaris, E. Panagopoulou,
   A.J. Montgomery & E. Masoura (2014) 'Job Burnout
   and Cognitive Functioning: A Systematic Review',
   Work & Stress, 28, 107–123. C. Liston, B.S. McEwen
   & B.J. Casey (2009) 'Psychosocial Stress Reversibly
   Disrupts Prefrontal Processing and Attentional
   Control', Proceedings of the National Academy of
   Sciences. 106. 912–917.
- Model adapted from J. Loehr & T. Schwartz (2003) The Power of Full Engagement: Managing Energy, not Time, Is the Key to High Performance and Personal Renewal, New York, Free Press.
- R.E. Venter (2012) 'Perceptions of Team Athletes on the Importance of Recovery Modalities', European Journal of Sports Science, 14 (Suppl. 1), S69-76.
- T. Haberstroh, 'Inside the "Tinderization" of Today's NBA', ESPN.com, 23 March 2017.
- B. Stulberg & S. Magness, S. (2017) Peak Performance: Elevate Your Game, Avoid Burnout, and Thrive with the New Science of Success, New York, Rodale
- R. McCraty & F. Shaffer (2015) 'Heart Rate Variability: New Perspectives on Physiological Mechanisms, Assessment of Self-regulatory Capacity, and Health Risk', Global Advances in Health and Medicine, 4 (1), 46–61.
- J.M. Ryan & L.G. Howes (2002) 'Relations between Alcohol Consumption, Heart Rate, and Heart Rate Variability in Men'. Heart. 88 (6), 641–42.
- J. Pietilä ét al. (2018) 'Acute Effect of Alcohol Intake on Cardiovascular Autonomic Regulation During the First Hours of Sleep in a Large Real-World Sample of Finnish Employees: Observational Study', JMIR Mental Health, 5 (1), e23.
- 9. S. Sonnentag, C. Binnewies & E.J. Mojza (2010)

- 'Staying Well and Engaged when Demands Are High: The Role of Psychological Detachment', Journal of Applied Psychology, 95, 965–976.
- S. Sonnentag, C. Binnewies & E. J. Mojza (2010) 'Staying Well and Engaged when Demands Are High: The Role of Psychological Detachment', Journal of Applied Psychology, 95, 965–976.
- M.A. Boksem & M. Tops (2008) 'Mental Fatigue: Costs and Benefits', Brain Res Rev, 59, 125–39.
- S.M. Marcora, W. Staiano & V. Manning (2009) 'Mental Fatigue Impairs Physical Performance in Humans', *Journal of Applied Physiology*, 106, 857-64.
- Ruth, A. (2012) 'The health benefits of nose breathing' Nursing in General Practice, available at: https://lenus.ie/bitstream/handle/10147/559021/ JAN15Art7.pdf;jsessionid=4740D7 DED4903767EA3413132C6500D2?sequence=1, accessed 10 March 2019.
- Sano, M., Sano, S., Oka, N., Yoshino, K., & Kato, T. (2013) 'Increased oxygen load in the prefrontal cortex from mouth breathing: a vector-based near-infrared spectroscopy study', Neuroreport, 24(17), 935–940.
- Lundberg, JO, Settergen, G, Gelinder, S, et al. (1996) 'Inhalation of nasally derived nitric oxide modulates pulmonary function in humans', Acta Physiol Scand, 158(4):343-7.
- Jones, M.L., Ganopolsky, J.G., Labbé, A. et al. Appl Microbiol Biotechnol (2010) 88: 401.
- Wang S.Z., Li S., Xu X.Y., et al. (2010) 'Effect of slow abdominal breathing combined with biofeedback on blood pressure and heart rate variability in prehypertension' J. Altern, Complement. Med. 16 1039–1045
  - Nolan R. P., Floras J.S., Harvey P.J., et al. (2010) 'Behavioral neurocardiac training in hypertension: a randomized, controlled trial', *Hypertension55* (1033–1039),
  - reduced anxiety (references: Henriques G, et al. (2011) 'Exploring the effectiveness of a computer-based heart rate variability biofeedback program in reducing anxiety in college students', Appl Psychophysiol Biofeedback, 36(2): 101–112, Kotozaki Y, Takeuchi H, Sekiguchi A, et al. (2014) 'Biofeedback-based training for stress management in daily hassles: an intervention study', Brain Behav. 4(4):566–79.
- Sengupta P. (2012) 'Health Impacts of Yoga and Pranayama: A State-of-the-Art Review', International Journal of Preventive Medicine, 3(7), 444–58.
- McHugh P, Aitcheson F, Duncan B, Houghton F. (2003) 'Buteyko Breathing Technique for asthma: an effective intervention', NZ Med J. 116(1187):U710.
- Kox, M., van Eijk, L. T., Zwaag, J., van den Wildenberg, J., Sweep, F. C., van der Hoeven, J. G., & Pickkers, P. (2014) 'Voluntary activation of the sympathetic nervous system and attenuation of the innate immune response in humans', Proceedings of the National Academy of Sciences of the United States of America. 111(20), 7379-84.
- Otto Muzik, Kaice T. Reilly, Vaibhav A. Diwadkar, 'Brain over body: A study on the willful regulation of autonomic function during cold exposure', Neurolmage, 2018; 172: 632 DOI: 10.1016/j. neuroimage.2018.01.067.
- N. Falsafi (2016) 'A Randomized Controlled Trial of Mindfulness Versus Yoga: Effects on Depression and/or Anxiety in College Students', Journal of

- the American Psychiatric Nurses Association, 22, 483–97; A. Costa & T. Barnhofer (2016) 'Turning Towards or Turning Away: A Comparison of Mindfulness Meditation and Guided Imagery Relaxation in Patients with Acute Depression', Behavioural and Cognitive Psychotherapy, 44, 410–19; T. Forkmann et al. (2016) 'The Effects of Mindfulness-based Cognitive Therapy and Cognitive Behavioral Analysis System of Psychotherapy Added to Treatment as Usual on Suicidal Ideation in Chronic Depression: Results of a Randomized-Clinical Trial', Journal of Affective Disorders, 200, 51–57.
- 23. J.N. Donald & P.W.B. Atkins (2016) 'Mindfulness and Coping with Stress: Do Levels of Perceived Stress Matter?' Mindfulness, 7, 1423–36; J.N. Donald et al. (2016) 'Daily Stress and the Benefits of Mindfulness: Examining the Daily and Longitudinal Relations between Present-moment Awareness and Stress Responses', Journal of Research in Personality, 65, 30–37; G. Li, H. Yuan & W. Zhang (2016) 'The Effects of Mindfulness-based Stress Reduction for Family Caregivers: Systematic Review', Archives of Psychiatric Nursing, 30, 292–99.
- K.A. Zernicke et al. (2016) 'The eCALM Trial: eTherapy for Cancer Applying Mindfulness' Exploratory
   Analyses of the Associations between Online Mindfulness-based Cancer Recovery Participation and
   Changes in Mood, Stress Symptoms, Mindfulness,
   Posttraumatic Growth, and Spirituality, Mindfulness,
   7. 1071–81.
- I. Solhaug et al. (2016) 'Medical and Psychology Students' Experiences in Learning Mindfulness: Benefits, Paradoxes, and Pitfalls', Mindfulness, 7, 838-50
- 26. D.C. Cherkin et al. (2016) 'Effect of Mindfulness-based Stress Reduction vs Cognitive Behavioral Therapy or Usual Care on Back Pain and Functional Limitations in Adults with Chronic Low Back Pain: A Randomized Clinical Trial', Journal of the American Medical Association, 315, 1240-49; E.L. Garland & M.O. Howard (2013) 'Mindfulness-oriented Recovery Enhancement Reduces Pain Attentional Bias in Chronic Pain Patients', Psychotherapy and Psychosomatics, 82 (5), 311-18.
- E.B. Loucks et al. (2015) 'Positive Associations of Dispositional Mindfulness with Cardiovascular Health: The New England Family Study', International Journal of Behavioral Medicine, 22, 540-50.
- J.M. Rogers et al. (2017) 'Mindfulness-based Interventions for Adults Who Are Overweight or Obese: A
   Meta-analysis of Physical and Psychological Health
   Outcomes', Obesity Reviews, 18, 51–67.
- S.N. Gallant (2016) 'Mindfulness Meditation Practice and Executive Functioning: Breaking Down the Benefit', Consciousness and Cognition, 40, 116-30.
- E. Shonin et al. (2014) 'Meditation Awareness Training (MAT) for Work-related Wellbeing and Job Performance: A Randomised Controlled Trial', International Journal of Mental Health and Addiction, 12, 806–23.
- E. Dane & B.J. Brummel (2014) 'Examining Workplace Mindfulness and Its Relations to Job Performance and Turnover Intention', Human Relation, 67, 105–28; P.P. Schultz et al. (2015) 'Mindfulness, Work Climate, and Psychological Need Satisfaction in Employee Well-being', Mindfulness, 6, 971–85.
- J.M. Rogers et al. (2017) 'Mindfulness-based Interventions for Adults Who Are Overweight or Obese: A
  Meta-analysis of Physical and Psychological Health
  Outcomes', Obesity Reviews, 18, 51–67; Harvard

- Medical School (2011) 'Harvard Health Letter: Mindful Eating', available at: www.health.harvard. edu/staying-healthy/mindful-eating, accessed 1 January 2019.
- A.N. Stephens et al. (2018) 'Associations Between Self-reported Mindfulness, Driving Anger and Aggressive Driving', Transportation Research Part F, 56, 149–55; Monash University (2018) 'Mindfulness Needed to Help Steer Clear from Driving Dangers', available at: www.monash.edu/news/articles/mindfulness-needed-to-help-steer-clear-from-drivingdangers, accessed 1 January 2019.
- J. Harvey, J. Crowley & A. Woszidlo (2018) 'Mindfulness', https://doi.org/10.1007/s12671-018-1040-y;
   S. Barnes et al. (2007) 'The Role of Mindfulness in Romantic Relationship Satisfaction and Responses to Relationship Stress', Journal of Marital and Family Therapy, 33 (4), 482-500.
- P.M. Lehrer & R. Gevirtz (2014) 'Heart Rate Variability Biofeedback: How and Why Does It Work?'
   Frontiers in Psychology, 5, 756.
- A. Kozak (2017) Buddhism 101: From Karma to the Four Noble Truths: Your Guide to Understanding the Principles of Buddhism, New York, Simon & Schuster. D. 242.
- E. Brymer & L. Oades (2009) 'Extreme Sports: A
   Positive Transformation in Courage and Humility',
   Journal of Humanistic Psychology, 49 (1).
- C.A. Moyer, J. Rounds & J.W. Hannum (2004) 'A Meta-Analysis of Massage Therapy Research', Psychological Bulletin, 130 (1), 3–18.
- 39. A. Ewert & Y. Chang (2018) 'Levels of Nature and Stress Response', *Behavioral Sciences*, 8 (5), 49.
- A.L. Vinesett, R.R. Whaley, C. Woods-Giscombe et al. (2017) 'Modified African Ngoma Healing Ceremony for Stress Reduction: A Pilot Study', *Journal of Alterna*tive and Complementary Medicine, 23 (10), 800–804.
- T. Field (2016) 'Yoga Research Review', Complementary Therapies in Clinical Practice, 24, 145–161.
- J.M. Peake, L.A. Roberts, V.C. Figueiredo et al. (2017) 'The Effects of Cold-Water Immersion and Active Recovery on Inflammation and Cell Stress Responses in Human Skeletal Muscle after Resistance Exercise', The Journal of Physiology, 595 (3) A95-711
- N.A. Jessen, A.S. Munk, I. Lundgaard & M. Nedergaard (2015) 'The Glymphatic System: A Beginner's Guide', Neurochemical Research, 40 (12), 2583–99.
- C. Hublin, J. Kaprio, M. Partinen & M. Koskenvuo (2001) 'Insufficient Sleep: A Population-based Study in Adults', Sleep, 24 (4), 392–400.
- H.R. Colten & B.M. Altevogt (eds) (2006) Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem, Washington DC: National Academies Press, Chapter 3, available at: www.ncbi.nlm. nih.gov/books/NBK19961. D. Hillman & L.C. Lack (2013) 'Public Health Implications of Sleep Loss: The Community Burden', Medical Journal of Australia, 199 (8 Suppl.), S7-S10.
- Deloitte Access Economics (2017) 'Asleep on the Job: Counting the Cost of Poor Sleep', report for the Sleep Health Foundation, available at: sleephealthfoundation.org.au/public-information/ special-reports/asleep-on-the-iob.html.
- N. Magnavita & S. Garbarino (2017) 'Sleep, Health and Wellness at Work: A Scoping Review', International Journal of Environmental Research and Public Health, 14 (11), p. ii: E1347. doi: 10.3390/ iierph14111347.

- 48. A. Williamson & A. Feyer (2000) 'Moderate Sleep Deprivation Produces Impairments in Cognitive and Motor Performance Equivalent to Legally Prescribed Levels of Alcohol Intoxication', Occupational and Environmental Medicine, 57 (10), 649-55. J. Phipps-Nelson, J.R. Redman, D.J. Dijk & S.M.W. Rajaratnam (2003) 'Daytime Exposure to Bright Light, as Compared to Dim Light, Decreases Sleepiness and Improves Psychomotor Vigilance Performance', Sleep, 26 (6), 695-700.
- V. Guadagni, F. Burles, M. Ferrara & G. Iaria (2014)
   'The Effects of Sleep Deprivation on Emotional Empathy', Journal of Sleep Research, 23, 657–63.

   M.P. Walker, E. van der Helm (2009) 'Overnight Therapy? The Role of Sleep in Emotional Brain Processing', Psychological Bulletin, 135 (5), 731–48.
- M.N. Mean (2008) 'Benefits of Sunlight: A Bright Spot for Human Health', Environmental Health Perspectives, 116 (4), A160-67. H. Lee, S. Kim & D. Kim (2014) 'Effects of Exercise With or Without Light Exposure on Sleep Quality and Hormone Responses', Journal of Exercise Nutrition & Biochemistry, 18 (3): 293-99.
- E.R. Pedersen, W.M. Troxel, R.A. Shih, E. Pinder, D. Lee & L. Geyer (2015) 'Increasing Resilience through Promotion of Healthy Sleep among Service Members', *Military Medicine*, 180 (1), 4–6.
   N. Goel, M. Basner, H. Rao & D.F. Dinges (2013) 'Circadian Rhythms, Sleep Deprivation, and Human Performance', *Progress in Molecular Biology and Translational Science*, 119, 155–90.
- K. Spiegel, E. Tasali, P. Penev & E. Van Cauter E. (2004) 'Brief Communication: Sleep Curtailment in Healthy Young Men Is Associated with Decreased Leptin Levels, Elevated Ghrelin Levels, and Increased Hunger and Appetite', Annals of Internal Medicine, 141 (11), 846–50.
- M. Hirshkowitz, K. Whiton, S.M. Albert et al. (2015) 'National Sleep Foundation's Sleep Time Duration Recommendations: Methodology and Results Summary', Sleep Health, 1 (1): 40-43.
- N. Littlehales (2016) Sleep: The Myth of 8 Hours, the Power of Naps... and the New Plan to Recharge Your Body and Mind, London, Penguin Books.
- A. May (2007) Flip the Switch: Why Performance Increases When You Play Hard and Recover Even Harder, Sydney, Switched On, pp. 66-70.
- 'The Dolphin' sleep personality was conceived of by Dr Michael Breus in his book *The Power of When*, New York, Little, Brown and Company, 2016.
- Roy Morgan Research (2016) 'Holidays Waiting to Happen: Australian Workers, 134 Million Days of Annual Leave, and Travel Plans', available at: roymorgan.com/findings/6974-holidays-waiting-to-happen-australian-workers-134million-days-annual-leave-201609200934.
- D. Gilbert & J. Abdullah (2004) 'Holidaying and the Sense of Well-being', Annals of Tourism Research, 31 (1), 103–21.
- N.D. Volkow, D. Tomasi, G.J. Wang et al. (2011) 'Effects of Cell Phone Radiofrequency Signal Exposure on Brain Glucose Metabolism', JAMA, 305 (8), 808–13.
- National Sleep Foundation (2015) 'National Sleep Foundation Recommends New Sleep Times', press release, available at: sleepfoundation.org/press-release/national-sleep-foundation-recommends-newsleep-times.
- 61. N. Lovato & L. Lack (2010) 'The Effects of Napping on

- Cognitive Functioning', Progress in Brain Research, 185, 155–66. H.M. Mulrine, T.L. Signal, M.J. van den Berg et al. (2012) 'Post-sleep Inertia Performance Benefits of Longer Naps in Simulated Night Work and Extended Operations', Chronobiology International, 29 (9), 1249–57.
- H.M. Mulrine, T.L. Signal, M.J. van den Berg et al. (2012) 'Post-sleep Inertia Performance Benefits of Longer Naps in Simulated Night Work and Extended Operations', Chronobiology International, 29 (9), 1249–57. C.J. Hilditch, S.A. Centofanti, J. Dorrian et al. (2016) 'A 30-Minute, but Not a 10-Minute Nighttime Nap is Associated with Sleep Inertia', Sleep, 39 (3), 675–85

#### Chapter 9 Connect

- 1. S. Sinek (2011) Start With Why: How Great Leaders
  Inspire Everyone to Take Action, New York, Portfolio.
- P.L. Hill & N.A. Turiano (2014) 'Purpose in Life as a Predictor of Mortality Across Adulthood', Psychological Science, 25 (7), 1482–86.
- P.L. Hill & N.A. Turiano (2014) 'Purpose in Life as a Predictor of Mortality Across Adulthood', Psychological Science, 25 (7), 1482–86.
- P.L. Hill et al. (2010) 'Collegiate Purpose Orientations and Well-being in Early and Middle Adulthood', Journal of Applied Developmental Psychology, 31, 173-79.
- P.L. Hill et al. (2018) 'Sense of Purpose Moderates the Associations Between Daily Stressors and Daily Well-being', Annals of Behavioral Medicine, 52 (8), 724-29.
- P.L. Hill et al. (2016) 'The Value of a Purposeful Life: Sense of Purpose Predicts Greater Income and Net Worth', Journal of Research in Personality, 65, 38–42
- D. Bartrés-Faz et al. (2018) 'Meaning in Life: Resilience Beyond Reserve', Alzheimer's Research & Therapy. 10 (1), 47.
- L.J. Whalley et al. (2004) 'Cognitive Reserve and the Neurobiology of Cognitive Aging', Ageing Research Reviews. 3 (4), 369-82.
- P.A. Boyle et al. (2009) 'Purpose in Life Is Associated with Mortality among Community-dwelling Older Persons', Psychosomatic Medicine, 71, 574–79; P.L. Hill & N.A. Turiano (2014) 'Purpose in Life as a Predictor of Mortality Across Adulthood', Psychological Science, 25 (7), 1482–86; T. Sone et al. (2008) 'Sense of Life Worth Living (ikigai) and Mortality in Japan: Ohsaki Study', Psychosomatic Medicine, 70, 709–15.
- E.S. Kim et al. (2013) 'Purpose in Life and Reduced Risk of Myocardial Infarction among Older US Adults with Coronary Heart Disease: A Two-year Follow-up', Journal of Behavioral Medicine, 36, 124–33.
- P.A. Boyle et al. (2010) 'Effect of a Purpose in Life on Risk of Incident Alzheimer Disease and Mild Cognitive Impairment in Community-dwelling Older Persons', Archives of General Psychiatry, 67, 304–10.
- L.E. Simonelli et al. (2008) 'Physical Sequelae and Depressive Symptoms in Gynecologic Cancer Survivors: Meaning in Life as a Mediator', Annals of Behavioral Medicine, 35, 275–84.
- C.D. Ryff et al. (2004) 'Positive Health: Connecting Well-being with Biology', Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, 359, 1449 (2004): 1383–94; E.M. Friedman et al. (2007) 'Plasma Interleukin-6 and Soluble IL-6 Receptors Are Associated with Psychological

- Well-being in Aging Women', Health Psychology, 26, 305; P. Lindfors & U. Lundberg (2002) 'Is Low Cortisol Release an Indicator of Positive Health?' Stress Health, 18, 153–60.
- C.D. Ryff et al. (2004) 'Positive Health: Connecting Well-being with Biology', Philosophical Transactions 33. of the Royal Society of London. Series B, Biological Sciences, 359, 1449 (2004): 1383–94.
- C.D. Ryff et al. (2004) 'Positive Health: Connecting Well-being with Biology', Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences. 359. 1449 (2004): 1383–94.
- Héctor García & Francesc Miralles, Ikigai: The Japanese Secret to a Long and Happy Life (Penguin, 2017)
- National Geographic, 'National Geographic Explores Denmark's Special Kind of Happiness', National Geographic, 17 November 2017, available at: copcap.com/newslist/2017/national-geographic-explores-denmarks-special-kind-of-happiness.
- 18. V. Arbes, C. Coulton & C. Boekel (2014) 'Men's Social Connectedness', Hall and Partners, Open Mind.
- R.S. Weiss (1973) Loneliness: The Experience of Emotional and Social Isolation, Cambridge, MA, The MIT Press
- M. Warell (2018) 'Text or Talk: Is Technology Making You Lonely?' Forbes, available at: forbes.com/sites/ womensmedia/2012/05/24/text-or-talk-is-technology-making-you-lonely/#46d4c1d42a7b.
- Lifeline Australia (2016) '8 out of 10 Australians Say Loneliness Is Increasing: New Survey', Lifeline Australia, available at: lifeline.org.au/about-lifeline/media-centre/media-releases/2016-articles/8-out-of-10-australians-say-loneliness-is-increasing.
- L. Mannion (2017) 'Britain Appoints Minister for Loneliness amid Growing Isolation', Reuters, 17 January 2018, available at: reuters.com/article/ us-britain-politics-health/britain-appoints-minister-for-loneliness-amid-growing-isolation-idUSKB-N1F6116
- G. Winch (2014) '10 Surprising Facts About Loneliness', Psychology Today, available at: psychology-today.com/au/blog/the-squeaky-wheel/201410/10-surprising-facts-about-loneliness.
- L.M. Heinrich & E. Gullone E. (2006) 'The Clinical Significance of Loneliness: A Literature Review', Clinical Psychology Review, 26 (6), 695–718.
- B. Cornwell (2012) 'Spousal Network Overlap as a Basis for Spousal Support', Journal of Marriage and Family, 74 (2), 229–38.
- A.M. Ledbetter, E.M. Griffin & G.G. Sparks (2007)
   'Forecasting "Friends Forever": A Longitudinal
   Investigation of Sustained Closeness between Best
   Friends', Personal Relationships, 14, 343–50.
- The Australian Longitudinal Study of Ageing, Flinders University, available at: flinders.edu. au/sabs/fcas-files/Documents/StudyOfAgeing%581%5D.pdf.
- S. Drefahl, (2010) How does the age gap between partners affect their survival? Demography 47 (2) 313–326.
- Tatangelo, G. McCabe, M. Campbell, S. Szoeke, C. (2017) Gender, marital status and longevity, Maturitas, 100, Pages 64-69
- 31. Colin Torney et al. (2015) 'Social Information Use

- and the Evolution of Unresponsiveness in Collective Systems', Interface, 12 (103), 20140893.
- J.C. Coultas (2004) 'When in Rome . . . An Evolutionary Perspective on Conformity', Group Processes & Intergroup Relations, 7 (4), 317–31.
- J. Faria et al. (2009) 'Navigation in Human Crowds: Testing the Many-wrongs Principle', Animal Behaviour, 78 (3), 587-91.
- R. Nauert (2016) "Herd" Mentality Explained', Psych Central, available at: https://psychcentral.com/ news/2008/02/15/herd-mentality-explained/1922. html
- 35. See thiscityisgoingonadiet.com.
- S. Pinker (2017) 'The Secret to Living Longer May Be Your Social Life', TED, available at: ted.com/talks/ susan\_pinker\_the\_secret\_to\_living\_longer\_may\_ be your social life.
- J.F. Helliwell, R. Layard & J.D. Sachs (2018) The World Happiness Report, available at: http://worldhappiness.report/ed/2018/.
- D.W. McMillan & D.M. Chavis (1986) 'Sense of Community: A Definition and Theory', Journal of Community Psychology, 14, 6–23.
- See English Oxford Living Dictionaries, available at: https://en.oxforddictionaries.com/definition/tribe.
- A. Richard et al. (2017) 'Loneliness Is Adversely Associated with Physical and Mental Health and Lifestyle Factors: Results from a Swiss National Survey', PLoS ONE, 12 (7): e0181442.
- Commonwealth Government, Department of Health (2017) 'Connecting with Community', Head to Health, available at: https://headtohealth.gov.au/ meaningful-life/connectedness/community.
- 42. D. Buettner, 'How to Live to Be 100+', TEDxTC, available at: ted.com/talks/dan\_buettner\_how\_to\_live\_to\_be\_100; D. Buettner (2017) '9 Lessons from the World's Blue Zones on Living a Long, Healthy Life', World Economic Forum, 26 June 2017, available at: weforum.org/agenda/2017/06/changing-the-way-america-eats-moves-and-connects-one-town-at-a-time.
- 43. G. Street & R. James (n.d.) 'The Relationship between Organised Recreational Activity and Mental Health', WA Department of Local Government, Sport and Cultural Industries, available at: dsr.wa.gov.au/support-and-advice/ research-and-policies/organised-recreational-activity-and-mental-health.
- B. Egolf et al. (1992) 'The Roseto Effect: A 50-year Comparison of Mortality Rates', American Journal of Public Health, 82 (8), 1089-92.
- M. Gladwell (2011) Outliers: The Story of Success, New York, Little, Brown and Company.
- D. Mann (2002) 'Negative lons Create Positive Vibes', WebMD, available at: webmd.com/balance/features/ negative-ions-create-positive-vibes#1.
- J. Horgan (2014) 'A Profile of Biologist, Warrior, Poet, Philosopher Edward O. Wilson', Scientific American, 10 December 2014, available at: https:// blogs.scientificamerican.com/cross-check/a-profile-of-biologist-warrior-poet-philosopher-edward-o-wilson.
- Australian Bureau of Statistics (2017) 'Census of Population and Housing: Reflecting Australia – Stories from the Census, 2016', available at: abs.gov.au/ausstats/abs@.nsf/Lookup/by%20 Subject/2071.0~2016~Main%20Features~Apartment%20Living~20.
- 49. Capaldi, C.A. et al. (2014) 'The Relationship between

- Nature Connectedness and Happiness: A Meta-analysis', Frontiers in Psychology, 5, 976.
- Health Direct (n.d.) 'Vitamin D Deficiency', Health Direct, available at: healthdirect.gov.au/vitamin-d-deficiency.
- 51. M.F. Holick (2017), Vitamin D deficiency. New England Journal of Medicine, 357, 266-81.
- D. Joshi, J.R. Center & J.A. Eisman (2010) 'Vitamin D Deficiency in Adults', Australian Prescriber, available at: nps.org.au/australian-prescriber/articles/vitamin-d-deficiency-in-adults.
- J. Pretty et al. (2005) 'The Mental and Physical Health Outcomes of Green Exercise', International Journal of Environmental Health Research, 15 (5), 319–37
- L.E. Keniger et al (2013) 'What Are the Benefits of Interacting with Nature?', International Journal of Environmental Research on Public Health, 10 (3), 913–35.
- J. Pretty et al. (2005) 'The Mental and Physical Health Outcomes of Green Exercise', International Journal of Environmental Health Research, 15 (5), 319–37.
- M. Rogerson et al. (2016) 'Influences of Green Outdoors versus Indoors Environmental Settings on Psychological and Social Outcomes of Controlled Exercise', International Journal of Environmental Research on Public Health, 13 (4), 363.
- E. Largo-Wigh (2011) 'Healthy Workplaces: The Effects of Nature Contact at Work on Employee Stress and Health', Public Health Reports, 126 (Suppl 1), 124–30.
- 58. T. Hartig et al. (2014) 'Nature and Health', Annual Review of Public Health, 35, 207–28.
- R. Gumon et al. (1996) 'Dead Sea Sun Versus Dead Sea Water in the Treatment of Psoriasis', Journal of Dermatological Treatment, 7 (2), 83–86.
- J. Ring et al. (2012) 'Guidelines for Treatment of Atopic Eczema (Atopic Dermatitis) Part II', Journal of the European Academy of Dermatology and Venereology, 26, 1176–93.
- S.D. Alvarez (2016) 'Health Check: Why Swimming in the Sea Is Good for You', The Conversation, available at: https://theconversation.com/health-check-why-swimming-in-the-sea-is-good-for-you-68583, accessed 27 January 2019.
- C.L. Brown & S.M. Graham (2004) 'Nasal Irrigations: Good or Bad?' Current Opinion Otolaryngology Head Neck Surgery, 12 (1), 9–13.
- S. Schneider et al. (2008) 'What Happens to the Brain in Weightlessness? A first approach by EEG Tomography', NeuroImage, 42 (4), 1316–23.
- J. Hirvonen et al. (2002) Plasma Catecholamines, Serotonin and Their Metabolites and Beta-endorphin of Winter Swimmers during One Winter. Possible Correlations to Psychological Traits, International Journal of Circumpolar Health, 61 (4), 363-72.
- Planet ArK (2013) 'Typical "Aussie" Outdoor Lifestyle No Longer Reality', Planet Ark, available at: https:// treeday.planetark.org/documents/doc-1053-planetark-media-release---outdoor-nation-no-longer-reality-1st-july-2013.pdf.
- K. Nisbit (2015) 'Answering Nature's Call: Commitment to Nature Contact Increases Well-Being', available at: https://davidsuzuki.org/wp-content/ uploads/2017/09/results-2015-david-suzuki-foun-dation-30x30-nature-challenge.pdf.
- 67. T. Lechner, T. (2018) '7 Reasons to Spend Mindful

- Time in Nature', available at: https://chopra.com/ articles/7-reasons-to-spend-mindful-time-in-nature.
- 68. Bum Jin Park et al. (2010) 'The Physiological Effects of Shinrin-yoku (Taking in the Forest Atmosphere or Forest Bathing): Evidence from Field Experiments in 24 Forests across Japan', Environmental Health and Preventive Medicine, 15 (1), 18–26; E. Selhub & A. Logan (2013) 'Your Brain on Nature: Forest Bathing and Reduced Stress', Mother Earth News, 8 January 2013, available at: motherearthnews. com/natural-health/herbal-remedies/forest-bathing-ze0z1301zqar?Pageld=3.
- T. Hartig et al. (2014) Nature and Health', Annual Review of Public Health, 35, 207-28; A. Colin (2014) The Relationship between Nature Connectedness and Happiness: A Meta-analysis', Frontiers of Psychology, 5, 976.
- J. Barton & J. Pretty (2010) 'What Is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-study Analysis', Environmental Science & Technology, 44 (10), 3947–55.
- M. Bekoff (2018) 'The Biophilia Effect: Exploring the Healing Power of Nature', Psychology Today, 10 January 2018, available at: psychologytoday.com/ au/blog/animal-emotions/201801/the-biophilia-effect-exploring-the-healing-power-nature.
- R. Stein (2011) 'Yes, Having a Dog or a Cat Really Is Good for You', The Washington Post, 13 July 2011, available at: washingtonpost.com/blogs/ the-checkup/post/yes-having-a-dog-or-a-cat-reallyis-good-for-you/2011/07/11/gIQAoGCjAI\_blog. html; H. Whiteman (2017) 'Six Ways Your Pet Can Boost Health and Well-being', Medical News Today, 2 June 2017, available at: medicalnewstoday.com/ articles/317738.php.
- Q. Li (2018) "Forest Bathing" Is Great for Your Health. Here's How to Do It, Time, 1 May 2018, available at: http://time.com/5259602/japanese-forest-bathing/.
- M.G. Berman, J. Jonides & S. Kaplan (2008) 'The Cognitive Benefits of Interacting with Nature', Psychological Science, 19 (12), 1207-12; J.J. Alvarsson, S. Wiens & M.E. Nilsson (2010) 'Stress Recovery During Exposure to Nature Sound and Environmental Noise', International Journal of Environmental Research and Public Health, 7 (3), 1036-46.

### Chapter 10 Think

- B. Kolb & R. Gibb (2011) 'Brain Plasticity and Behaviour in the Developing Brain', Journal of the Canadian Academy of Child and Adolescent Psychiatry, 20 (4), 265–76.
- C.L.M. Keyes (2002) 'The Mental Health Continuum: From Languishing to Flourishing in Life', Journal of Health and Social Behavior, 43 (2), 207–22.
- S. Lane (2016) 'I'm Glad I Shared My Mental Health Struggle, Says Buddy Franklin', The Age, 26 March 2016.
- C.S. Dweck (2016) Mindset: The New Psychology of Success, Ballantine Books, New York.
- A.R. Anderson (2016) 'The Fastest Way to Achieve Success Is to First Help Others Succeed', Forbes, available at: forbes.com/sites/ amyanderson/2016/01/06/the-fastest-wayto-achieve-success-is-to-first-help-others-succeed/#431b8e6179f9, accessed 28 January 2019.
- A. Duckworth (n.d.) 'Q&A', AngelaDuckworth.com, available at: https://angeladuckworth.com/qa, accessed 28 January 2019.

- D. Perkins-Gough (2013) 'The Significance of Grit: A Conversation with Angela Lee Duckworth', Educational Leadership, 71 (1), 14–20.
- 8. C. Adams Miller (2017) Getting Grit: The Evidence-based Approach to Cultivating Passion, Perseverance and Purpose. Sounds True, Boulder, CO.
- L. Fessler (2018) "You're No Genius": Her Father's Shutdowns Made Angela Duckworth a World Expert on Grit', Quartz at Work, available at: https://qz.com/ work/1233940/angela-duckworth-explains-grit-isthe-key-to-success-and-self-confidence, accessed 28 January 2019.
- B.L. Fredrickson & M.F. Losada (2005) 'Positive Affect and the Complex Dynamics of Human Flourishing', The American Psychologist, 60 (7), 678-86.
- R.A. Emmonds (2013) Gratitude Works! A 21-Day Program for Creating Emotional Prosperity, Jossey-Bass, San Francisco, CA.
- R.A. Emmonds (2011) 'Why Gratitude Is Good', Daily Good. News that Inspires, available at: dailygood. org/story/8/why-gratitude-is-good-robert-a-emmons. accessed 28 January 2019.
- D. Chopra (2019) 'In the Holiday Spirit: Giving, Gratitude, and Grace', The Chopra Center, available at: https://chopra.com/articles/in-the-holiday-spirit-giving-gratitude-and-grace.
- R. Baumeister, K. Vohs, J. Aaker & E. Garbinsky (2012) 'Some Key Differences between a Happy Life and a Meaningful Life', The Journal of Positive Psychology, 8 (6).
- M.D. Seery et al. (2013) 'An Upside to Adversity? Moderate Cumulative Lifetime Adversity Is Associated with Resilient Responses in the Face of Controlled Stressors', Psychological Science, 24, 1181-89
- A. Croft, E.W. Dunn & J. Quoidbach (2014) 'From Tribulations to Appreciation: Experiencing Adversity in the Past Predicts Greater Savoring in the Present', Social Psychological and Personality Science, 5 (5), 511–16.
- M. Tugade & B. Fredrickson (2007) 'Regulation of Positive Emotions: Emotion Regulation Strategies that Promote Resilience', Journal of Happiness Studies, 8, 311-33; J. Quoidbach et al. (2010) 'Positive Emotion Regulation and Wellbeing: Comparing the Impact of Eight Savoring and Dampening Strategies', Personality and Individual Differences, 49. 368-73.
- E. Brummelman, J. Crocker & B.J. Bushman (2016) 'The Praise Paradox: When and Why Praise Backfires in Children with Low Self-Esteem', Child Development Perspectives, 10, 111–15; J.V. Wood et al. (2009) 'Positive Self-statements: Power for Some, Peril for Others', Psychological Science, 20 (7), 860–66.
- J. Revenio (2017) 'Determinants of Job Stress and Its Relationship on Employee Job Performance', American Journal of Management Science and Engineering, 2 (1); P.A. Ahmed & M. Ramzan (2013) 'Effects of Job Stress on Employees Job Performance: A Study on Banking Sector of Pakistan', Journal of Business Management, 11 (6), 61-68.
- M. Gervais (2018) 'How to Achieve Ultra High Performance', Impact Theory, 19 June 2018, available at: https://impacttheory.com/episode/michael-gervais.
- M. Gervais (2018) 'How to Achieve Ultra High Performance', Impact Theory, 19 June 2018, available at: https://impacttheory.com/episode/michael-gervais.
- 22. K.F. Hayes & C.H. Brown (2004) You're ON!

- Consulting for Peak Performance, The American Psychological Association.
- K.F. Hayes & C.H. Brown (2004) You're ON!
   Consulting for Peak Performance, The American Psychological Association.
- S. Walker (2007) 'Imagery and Visualization in Sports', Podium Sports Journal, 18 October 2007, available at: www.podiumsportsjournal. com/2007/10/18/imagery-and-visualization-in-sports-2, accessed 28 January 2019.
- D.L. Schacter et al. (2012) 'The Futuré of Memory: Remembering, Imagining, and the Brain', Neuron, 76 (4), 677-94.
- T. Newmark (2012) 'Cases in Visualization for Improved Athletic Performance', Healio, 42 (10); R. Noel (1980) 'The Effect of Visuo-motor Behavior Rehearsal on Tennis Performance', Journal of Sport Psychology, 2 (3), 221-26.
- E.Á. Locke (1968) 'Toward a Theory of Task Motivation and Incentives', Organizational Behavior and Human Performance, 2 (3), 157–89.
- A.P. Moran (1996) The Psychology of Concentration in Sports Performers: A Cognitive Analysis, Psychology Press, Hove, p. 177.
- D. Bech (2013) 'Rugby World Cup 2003: Jonny Wilkinson Recalls "That Kick" Against Australia', The Independent, 22 November 2013, available at: independent.co.uk/sport/rugby/rugby-union/news-comment/rugby-world-cup-2003-jonny-wilkinson-recalls-that-kick-against-australia-8956710.html.
- J.W. Pennebaker (1997) 'Writing about Emotional Experiences as a Therapeutic Process', Psychological Science, 8 (3), 162–66.
- 31. S.M. Murphy (2012) The Oxford Handbook of Sport and Performance Psychology, Oxford University
- S.M. Murphy (2012) The Oxford Handbook of Sport and Performance Psychology, Oxford University Press, Oxford.

#### Chapter 11 Play

- P. Guitard, F. Ferland & E. Dutil (2005) 'Towards a Better Understanding of Playfulness in Adults', OTJR: Occupation, Participation and Health, 25 (1), 9-22
- J. Wallace, 'Why It's Good for Grown-ups to Go Play', Washington Post, 20 May 2017.
- S. Brown & C. Vaughan (2009) Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul. New York. Penguin.
- D. Whitebread et al. (2012) The Importance of Play, available at: importanceofplay.eu/IMG/pdf/dr\_ david\_whitebread\_-\_the\_importance\_of\_play.pdf
- A.J. Solnit (1998) 'Beyond Play and Playfulness', Psychoanalytic Study of the Child, 53, 102-10.
- P. Guitard, F. Ferland & E. Dutil (2005) 'Towards a Better Understanding of Playfulness in Adults', OTJR: Occupation, Participation and Health, 25 (1), 9-22.
- P. Guitard, F. Ferland & E. Dutil (2005) 'Towards a Better Understanding of Playfulness in Adults', OTJR: Occupation, Participation and Health, 25 (1),
- M. Lyons (1987) 'A Taxonomy of Playfulness for Use in Occupational Therapy', Australian Journal of Occupational Therapy, 34 (4), 152–56.
- S. Brown & C. Vaughan (2009) Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul, New York, Penguin.

- 42. J. Frost & P. Jacobs (1995) 'Play Deprivation and Juvenile Violence', *Dimensions*, 23, 14–20, 39.
- 43. A. Tobin (1997) Asking About Life, New York, Harcourt Brace College.
- P. Guitard, F. Ferland & E. Dutil (2005) 'Towards a Better Understanding of Playfulness in Adults', OTJR: Occupation, Participation and Health, 25 (1), 9-22.
- 45. M. Csikszentmihalyi (1996) Creativity: The Work and Lives of 91 Eminent People, New York, HarperCollins.
- M. Csikszentmihalyi (1996) 'The Creative Personality', Psychology Today, 1 July 1996, available at: psychologytoday.com/au/articles/199607/the-creative-personality.
- R. Puff (2017) 'True Happiness is Effortless and Spontaneous', Psychology Today, 27 September 2017, available at: psychologytoday.com/au/ blog/meditation-modern-life/201709/true-happiness-is-effortless-and-spontaneous.
- E. Blatchford (2017) 'There Are Nine Different Types of Humour: Which One Are You?', HuffPost, 19 July 2017, available at: huffingtonpost.com. au/2017/07/19/there-are-nine-different-types-ofhumour-which-one-are-you\_a\_23036626.
- C. Kidd & B.Y. Hayden (2015) 'The Psychology and Neuroscience of Curiosity', Neuron, 88 (3), 449–60.
- M.J. Kang et al. (2009) 'The Wick in the Candle of Learning: Epistemic Curiosity Activates Reward Circuitry and Enhances Memory', Psychological Science. 20 (8), 963–73.
- S. von Stumm, B. Hell & T. Chamorro-Premuzic (2011) 'The Hungry Mind: Intellectual Curiosity Is the Third Pillar of Academic Performance', Perspectives on Psychological Science, 6 (6), 574–88.
- P. Campbell (2014) 'Five Ways to Become More Curious', Psychology Today, 28 October 2014, available at: psychologytoday.com/us/blog/imperfect-spirituality/201410/five-ways-become-more-curious.
- L.D. Katz (2016) 'Pleasure', in Edward N. Zalta (ed.), The Stanford Encyclopedia of Philosophy, available at: https://plato.stanford.edu/archives/win2016/ entries/pleasure, accessed 1 February 2019.
- 54. M.L. Kringelbach & K.C. Berridge (2010) 'The Neuroscience of Happiness and Pleasure', *Social Research*, 77 (2) 659-78
- M.E.P. Seligman (2010) 'Pursuit of Pleasure, Engagement, and Meaning: Relationships to Subjective and Objective Measures of Well-being', Journal of Positive Psychology, 5 (4), 253–63.
- H. Wright et al. (2017) 'Frequent Sexual Activity Predicts Specific Cognitive Abilities in Older Adults', The Journals of Gerontology: Series B, doi: doi. org/10.1093/geronb/gbx065 (ePub ahead of print).
- K. Leavitt et al. (2017) From the Bedroom to the Office: Workplace Spillover Effects of Sexual Activity at Home', Journal of Management, published online on 1 March 2017.
- M. Dow (2018) 'Bigger Brains from Adult Play and Hypnosis', Dave Asprey's Bullet Proof Radio, #525, available at: https://blog.bulletproof.com/mikedow-525.
- N. Herrmann (1997) 'What Is the Function of the Various Brainwaves?', Scientific American, 22 December 1997, available at: https://scientificamerican.com/article/what-is-the-function-of-t-1997-12-22.
- G. Chick, S. Yarnal & A. Purrington (2012) 'Play and Mate Preference: Testing the Signal Theory of Adult Playfulness', American Journal of Play, 4 (4), 407–39.
- 61. G. Capelli, 'Neoteny The Best Word in the World

- (for Mental Health, Productivity, Innovation ...)', LinkedIn, 20 October 2015, available at: https:// linkedin.com/pulse/neoteny-best-word-world-mental-health-productivity-glenn-capelli.
- TNN (2015) 'The Hurried Child Syndrome!', Times of India, 14 May 2016, available at: https://timesofindia.indiatimes.com/life-style/relationships/ parenting/The-hurried-child-syndrome/articleshow/20393458.cms.
- M. Pascoe, 'Why We Should Put Yoga in the Australian School Curriculum', The Conversation, 25 January 2018, available at: https://theconversation. com/why-we-should-put-yoga-in-the-australian-school-curriculum-89962.
- W. Doyle, 'This Is Why Finland Has the Best Schools', The Sydney Morning Herald, '26 March 2016, available at: https://smh.com.au/national/this-is-why-finland-has-the-best-schools-20160325-angy 9l.html.
- 65. K.L. LaMothe (2015) Why We Dance: A Philosophy of Bodily Becoming, New York, Columbia University
- E. Smith (2018) 'Play Like a Child', New Philosopher Magazine, 20.
- 67. R.R. Provine (2001) Laughter: A Scientific Investigation, New York, Penguin Books.
- R.R. Provine (2000) Laughter: A Scientific Investigation', American Scientist, 84, 38–45, available at: researchgate.net/publication/232489851\_Laughter\_A\_Scientific\_Investigation.
- Mayo Clinic Staff (2016) 'Stress Relief from Laughter? It's No Joke', 21 April 2016, available at: https://mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-relief/art-20044456?pg=2.
- M.A. Balbag, N.L. Pedersen & M. Gatz (2014)
   'Playing a Musical Instrument as a Protective Factor against Dementia and Cognitive Impairment:
   A Population-Based Twin Study', International Journal of Alzheimer's Disease, doi: http://dx.doi.org/10.1155/2014/836748.
- J.L. Burggraaf et al. (2013) 'Neurocardiological Differences between Musicians and Control Subjects', Netherlands Heart Journal, 21 (4), 183–88.
- R.D. Fields (2017) 'When Music Makes You Cry', *Psychology Today*, available at: psychologytoday. com/au/blog/the-new-brain/201709/when-music-makes-vou-cry. accessed 1 February 2019.
- C. Bergíand (2015) 'Alpha Brain Waves Boost Creativity and Reduce Depression', Psychology Today, available at: psychologytoday.com/au/blog/ the-athletes-way/201504/alpha-brain-wavesboost-creativity-and-reduce-depression, accessed 1 February 2019.
- F. Lipman (2018) How to Be Well: The 6 Keys to a Happy and Healthy Life, New York, Houghton Mifflin Harcourt.
- 75. See patchadams.org.
- Mayo Clinic Staff (2016) 'Stress Relief from Laughter? It's No Joke', Mayo Clinic, available at: mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-relief/art-20044456.
- American Physiological Society (2008) 'Anticipating a Laugh Reduces Our Stress Hormones, Study Shows', Science Daily, available at: sciencedaily. com/releases/2008/04/080407114617.htm, accessed 31 January 2019.
- Men's Health (2017) '5 Surprising Health Benefits of Gaming', Men's Health, 26 October 2017, available at: http://menshealth.co.uk/living/5-surprising-health-benefits-of-gaming.

- G. Clemenson et al. (2015) 'Virtual Environmental Enrichment through Video Games Improves Hippocampal-Associated Memory', *Journal of Neuroscience*, 35 (49), 16116–16125.
- S. Kühn et al. (2014) Playing Super Mario Induces Structural Brain Plasticity: Gray Matter Changes Resulting from Training with a Commercial Video Game', Molecular Psychiatry, 19, 265–271.
- M. Jarvis (2017) 'Strategy-Based Video Games May Improve Older Adults' Brain Function', American Association for the Advancement of Science, 22 March 2017, available at: https://aaas.org/news/ strategy-based-video-games-may-improve-olderadults-brain-function.
- 82. A.F. Anderson, D. Bavelier & C.S. Green (2010)
  'Speed-Accuracy Tradeoffs in Cognitive Tasks in Action
  Game Players', *Journal of Vision*, 10, 748.
- R.A. McKinley et al. (2011) 'Operator Selection for Unmanned Aerial Systems: Comparing Video Game Players and Pilots', Aviat Space Environ Med, 82 (6), 635-42.

#### Chapter 12 Living the Better Week

- A. Marcus (2018) Own the Day, Own Your Life: Optimized Practices for Waking, Working, Learning, Eating, Training, Playing, Sleeping and Sex, New York. Harper Wave.
- Gardner, B., Lally, P., & Wardle, J. (2012) 'Making health habitual: the psychology of "habit-formation" and general practice', The British Journal of General Practitioners, 62(605), 664-6. Rothman AJ, Sheeran P, Wood W, 'Reflective and automatic processes in the initiation and maintenance of dietary change', Ann Behav Med. 2009;38(Suppl1):S4-17.
- The science in this fact sheet is based on the research of Francis Heylighen and Clement Vidal from the ECCO – Evolution, Complexity and Cognition Research Group.
- Coghlan, D., & Brydon-Miller, M. (2014) The SAGE Encyclopedia of Action Research (Vols. 1-2), London: 12.
   SAGE Publications Ltd. Futerman, A. & Block, W. (2017) 'A Praxeological Approach to Intentional Action', Studia Humana, 6(4), pp. 10-33.
- Miller, G. (1956) 'The magical number seven, plus or minus two: Some limits on our capacity for processing information', *The Psychological Review*, 63, 81-97.
- Csikszentmihalyi, M. (2004) The Collected Works of Mihaly Csikszentmihalyi, Dordrecht, Springer Netherlands.
- Davis, R., Campbell, R., Hildon, Z., Hobbs, L., & Michie, S. (2014) 'Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review', Health Psychology Review, 9(3), 323-44.
- C. Arthur (2014) 'Wearables: One-third of Consumers Abandoning Devices', The Guardian, 1 April 2014, available at: theguardian.com/technology/2014/apr/01/wearables-consumers-abandoning-devices-galaxy-gear.
- M.S. Patel, D.A. Asch & K.G. Volpp (2015) 'Wearable Devices as Facilitators, Not Drivers, of Health Behavior Change', *Journal of the American Medical* Association, 313 (5), 459–460.

## Chapter 13 Understanding Behaviour Change

- J.M. Prochaska (2000) 'A Transtheoretical Model for Assessing Organizational Change: A Study of Family Service Agencies' Movement to Time-limited Therapy', Families in Society: The Journal of Contemporary Human Services, 81, 76–86.
- A. Grant & J. Greene (2004) Coach Yourself: Make real changes in your life. It's your life, Edinburgh Gate, Harlow, UK, Pearson Education Limited.
- J.C. Norcross, M.S. Mrykalo & M.D. Blagys (2002) 'Auld Lang Syne: Success Predictors, Change Processes, and Self-reported Outcomes of New Year's Resolvers and Nonresolvers', Journal of Clinical Psychology, 58 (4), 397–405.
- T. Gorski & M. Miller (1989) Mistaken Beliefs about Relapse, Independence Press.
- N. Heather, S. Rollnick & A. Bell (1993) 'Predictive Validity of the Readiness to Change Questionnaire', Addiction, 88, 1667-77.
- 6. W. Bridges (1986) 'Managing Organisational Transition', *Organisational Dynamics*, 15 (1), 24–33.
- N.W. Lingawi & W.B. Balleine (2012) 'Amygdala Central Nucleus Interacts with Dorsolateral Striatum to Regulate the Acquisition of Habits', Journal of Neuroscience, 32 (3), 1073–81; A.M. Graybiel (2008) 'Habits, Rituals, and the Evaluative Brain', Annual Review of Neuroscience, 31, 359–387.
- A.M. Graybiel (2008) 'Habits, Rituals, and the Evaluative Brain', Annual Review of Neuroscience, 31, 359–387.
- A.M. Graybiel (2008) 'Habits, Rituals, and the Evaluative Brain', Annual Review of Neuroscience, 31, 359–387
- C. Duhigg (2012) The Power of Habit: Why We Do What We Do in Life and Business, New York, Random House.
- A.M. Graybiel (2008) 'Habits, Rituals, and the Evaluative Brain', Annual Review of Neuroscience, 31, 359-387.
- A.H. Mokdad et al. (2016) 'Global Burden of Diseases, Injuries, and Risk Factors for Young People's Health During 1990-2013: A Systematic Analysis for the Global Burden of Disease Study 2013', *Lancet*, 387 (10036), 2383-2401.
- G. Bozionelos & P. Bennett (1999) 'The Theory of Planned Behaviour as Predictor of Exercise: The Moderating Influence of Beliefs and Personality Variables', Journal of Health Psychology, 4 (4), 517–29
- E. Oussedik et al. (2017) 'Accountability: A Missing Construct in Models of Adherence Behavior and in Clinical Practice', Patient Preference and Adherence, 11, 1285–1294.
- J.A. Thompson (2005) 'Proactive Personality and Job Performance: A Social Capital Perspective', Journal of Applied Psychology, 90 (5), 1011–17.
- M.J. Kim et al. (2015) 'Lemon Detox Diet Reduced Body Fat, Insulin Resistance, and Serum hs-CRP Level without Hematological Changes in Overweight Korean Women', Nutrition Research, 35 (5), 409–20.
- T. Ferriss (2011) The 4-Hour Work Week: Escape the 9-5, Live Anywhere and Join the New Rich, New York, Ebury Books.



## DR TOM BUCKLEY

Writing any book is not a solo effort and I would like to acknowledge a few people who have made this book possible.

Firstly to Andrew, whom I've learned so much from over many years working, and cycling together, thanks for being a great friend and for always keeping it real. Don't ever lose that ability to inspire, motivate and guide people to be better versions of themselves.

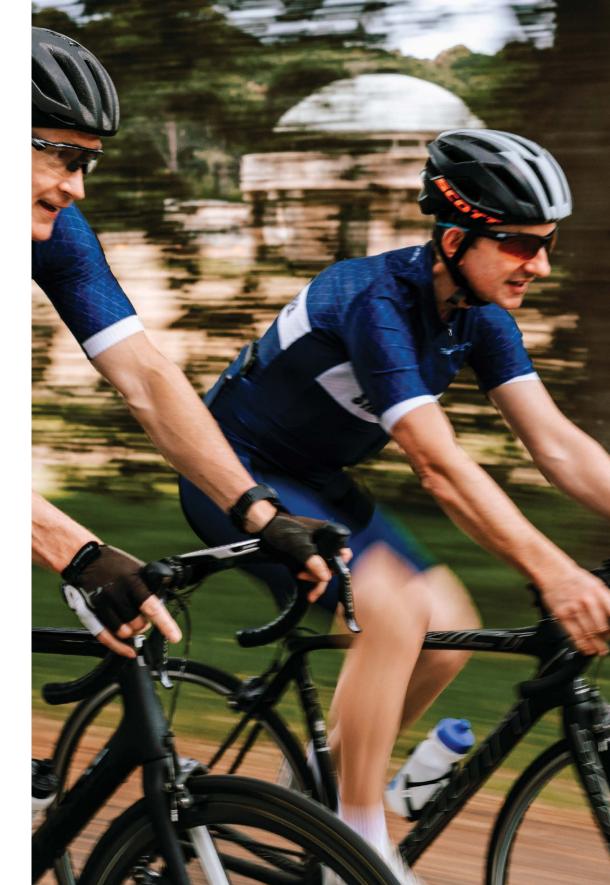
To my wife Natalie and boys Liam and Callum, thank you for your unconditional love and support.

To my father John (1934–2019), thanks for guiding me towards who I have become and for all the votes of confidence.

Finally, to all those who have enabled me professionally in so many ways over the years; I am forever grateful.

Nom Bully

Dr Tom Buckley heads up the StriveStronger Research Institute and is an internationally recognised expert on the interaction between psychological and physiological stress and how this impacts wellbeing. He is an Associate Professor in the Faculty of Medicine and Health at the University of Sydney, with qualifications in Health Sciences, a Master's degree in Nursing and a PhD in the area of preventative cardiology. He has published over 80 peer–reviewed scientific publications, contributed over 20 medical book chapters and written three textbooks. Dr Tom has a background as a track athlete and ironman triathlete.



# **ACKNOWLEDGEMENTS**

Anyone who has written a book understands the process is an emotional rollercoaster. That said, I have thoroughly enjoyed writing (most of) *MatchFit* and there are many people I would like to thank.

# The team behind MatchFit

While *MatchFit* took less than six months to write, the ideas, concepts and experiences have been shaped over the past 20 years. First to my co-author, Dr Tom Buckley, thanks for your loyalty, friendship, dedication and scientific acumen over the past 12 years in five different business iterations. To Rob O'Connor and Dr Harry Wendt, you have both been instrumental in helping create the robust MatchFit Calculator that underpins this book.

Julian Welch, you are a master of words and it was a pleasure working with you. To Rod Morrison at Brio Books, your patience

and guidance helped me shape this project from our first conversation over two years ago. And to Jon MacDonald, Roy Chen, David Henley and the rest of the Brio team, I am very proud of the book and look we have created.

To the MGs (Marketing Goddesses) Tara and Lisa from Lordsmith & Co., thank you for helping create an exciting brand. Big thanks to Ryan Romanes and Lauren Finks for bringing ideas and concepts to life with models and design. Luke Middlemiss, you are an amazing photographer.

Richard Burton, I appreciate your coaching and content you contributed to CONNECT. Teresa Boyce, I really enjoyed shaking things up writing the FUEL chapter together and thank you for supporting me to bounce back into shape a few years ago. Merryn Aldridge, you have a gift for understanding the human body. To Sarah Berry, I love having you as part of the team and you have contributed to multiple chapters. Dr Paul Batman, you have always been a great mentor and supporter. To Dan Bradley, Nick Jones and T, I'm very grateful for the guidance the three of you gave me when I did my own version of the 6 Week Shred.

Thumbs up to Shelley Roberts, Michael Wright and Pete Birch for permission to include their inspiring case studies. James Hunter, you were the first person to suggest I translate strategies I learned about being 'matchfit' in elite sport to the corporate world. Thank you. To my little sister Sarah, posting a picture on Facebook with my top off provided the slap I needed to stop partying and turn my life around.

Sheila Vijeyarasa, thanks for believing and for pushing me to go the mainstream publishing model. Dan Ruffino, Anna Stelter and the Simon & Schuster family, I'm excited to be working with you. Gary and Margaret Green, thanks for letting me book your holiday house in Gerroa to get away and write.

# Lessons from sport

I was blessed to work at the pointy end for close to 20 years. Jock Campbell, I appreciate the opportunity to job share and work with the Australian cricket team. John Buchanan, many lessons and philosophies were learned from you.

Big hugs to former running coach Di Huxley who taught me about training, recovery and how to maintain balance in life. Lots of the ideas I originally implemented with athletes were planted by you and John Quinn, who had a significant involvement in my earlier years.

Steve Rixon taught me invaluable lessons about discipline, time management and how much fun you can have working with a winning team. David Misson (Misso), thanks for opening up a world of opportunities in sports conditioning. Paddy Farhart, the world's best physio, I learned so much from you, champion, and appreciate the friendship.

# The pre-KPMG years

When I launched my first business in Hobart, Sean O'Sullivan was the first CEO to engage with me which was invaluable experience for a 23 year old who asked 'what is the *Financial Review*?' Dean Ewington, you taught me many lessons watching the way you went about business and I'm forever grateful for the opportunity at Wrest Point Hotel Casino. To Dennis Rudge, former General Manager of Wrest Point, you were instrumental in helping me build a successful corporate health business. Dr Paddy Reynolds, I still think of the valuable words of wisdom you gave me from the moment I walked into your medical practice in West Hobart. Damon and Liz Thomas, I appreciate your friendship and guidance when I was an over-confident PT in my early 20s. Ricky Langford, we had some fun setting up Fully Integrated Training in Hobart.

Doug Malouf originally inspired me to choose the path of a keynote speaker and your legacy lives on with so many people. Big Dave Willis, you are more like a big brother and have taught me many things. Dr Timothy Sharp, I appreciate our conversations and your guidance in the field of positive psychology.

Louise Heywood and the team from Healthy Business. We were punching way above our weight and created a great opportunity to sell to ACCOR.

James Patterson, you've been a great supporter and opened up many doors for me in the corporate market, thanks mate. Quentin

Boyes, Kathy Cummings and Tim Wilding (who were all working at CBA), Carmel Mulhern and Simon Brookes from Telstra, Nick Collishaw from Mirvac, Omar Ressas from St George Bank and Vittoria Shortt and Mark Reid from Bankwest: you were all instrumental in backing me to grow a boutique consulting business. And thank you to all of The Performance Clinic team.

# The KPMG years and after

I went through a really tough time a few years back and there were a bunch of family and friends that were amazing, supporting me when I was at my lowest and helping me get back on my feet. Thank you to Mum and Dad (I love you both so much), Mark and Liesl May, Sarah and Wade Alexander. Greg and Karine Marr, you are like family. And Mario, thank you for being my sounding board, my conscience, and for your continued support.

Simon and Elke Rintel, Mick and Lisa Rayment, Gavin Zauch, Q.B. Ed Phillips, Stuart Clark, Richard Errington and Dobo were all there for support when I needed it most. And to the Hoffsite Boys, I love the connection we all share together.

Wayne Treeby and Martin Sheppard, your vision led to KPMG acquiring The Performance Clinic. I have made some lasting corporate friendships at KPMG and really appreciate the support from Ewald Bruggeman, Stefanie Bradley, Gary Wingrove, James Hunter, Doug Ferguson, Alison Kitchen, David Linke, Michael Hiller, Ian Hancock, Martin Blake and Natasha Moore. Special mention to Bruce Phillips (the best-dressed man in consulting), Steve Clark and Adrian Fisk, for mentoring and teaching me so much.

Thank you to KPMG Performance Clinic team members Jason Murray, Colin Boldra, Angela Poon, Rob O'Connor, Jen Hogarth, Nick Vella, Mathilde Payette, Chris Gillies, Katrina Simpson, Jacinta Baronie, Lisa Stanton, Caroline Fitzgereld, Brian Corrigan and Teresa Boyce.

David Lindberg, I appreciate your friendship and business guidance and look forward to continuing to battle it out on the bike, in the ocean and in the gym. Andy Lark, I love being able to access your creative brain. Nick Hawkins, you have helped

me navigate relationships, sell companies and launch new ideas. Thank you. Jill Macnaught, thanks for the coaching/psychology sessions and guiding me through some difficult times in my life. To Brigid Walsh and the caring family at the Golden Door, I love being associated with you all.

To Virginia Trioli, Michael Rowland, Lisa Millar, PK, Emily Butselaar, Justine Kerr, Ann Cordiner, William Roncon and the ABC News Breakfast crew, I really appreciate the opportunity of working with you all.

To the diverse new team assembled at andrewmay.com and StriveStronger including Dr Tom, Harry Wendt, Angela Poon, Thomas Parkinson (The Wizard), Erin Honor, Kerryn Dwyer, Krystal McCluskey, Rob O'Connor, Teresa Boyce, Merryn Aldridge, Sarah Berry and Janice Gillon, strap your seatbelts on.

To every athlete, coaching client, company and conference organiser I have had the opportunity of working with – thank you for helping to shape the ideas, experience and intellectual property that is now articulated in *MatchFit*.

Toni Moawad, thank you for your constant support, love, patience and wonderful gift with food. You make life better for all of us.

andrewmay.com





STRIVE - STRONGER
BY ANDREW MAY

A highly engaging podcast waking you up to a better way of living, working and leading.

MatchFit in 8 Weeks is a world-class digital program supporting you to achieve your personal best and helping you to MOVE, FUEL, RECHARGE, THINK, CONNECT and PLAY like a high performer. Perfect accompaniment to MatchFit Book This 8-week online program coaches you to put the MatchFit principles into practice.

#### **Powered By Science**

Andrew and the StriveStronger team sought out global experts in medical science, sleep, genetics, ageing, sports science, exercise physiology, elite sport, physiotherapy, nutrition, psychology, neuroscience, technology and computer science, leadership and workplace productivity to put this program together.

## **Diverse Learning Experience**

MF8 is a multi-media platform built by experts in learning and behavioural change. MF8 includes video tutorials, articles, podcasts, research papers, interactive displays, dashboards, accountability planners and nudges to help you stay on track. Inclusivity is a key value of our business and this includes gender, age, sexual preference, ethnicity, diversity of thinking and preferred learning styles.

## Watch, Read, Listen, Do

Each week you will have some videos to WATCH, some materials to READ, some podcasts to listen to and some tasks to DO. There is a short Check In survey to fill in for accountability and an MF8 Chatroom where you can share your experiences and ask questions.



#### Stacks of Fresh Content

MF8 includes an Exercise Vault with guided fitness sessions based on your current MatchFit score; a Recipe Library with healthy meals to prepare for breakfast, lunch, dinner and snacks; a Recovery Wardrobe with activities to recharge the body and brain; and a Brain Gym to help you optimise cognitive function, creativity and performance.

## Wrapped with a warm, human touch

MF8 hasn't been designed by celebrities or people who are out of touch with the average person. MF8 has been put together by real people, with real language, focused on achieving real results.

#### Results guaranteed\*

The average MF8 participant achieves the following results:

- Reduce Biological Age by 3 years
- Increase MatchFit Calculator score by 10%
- Boost energy levels by 25%

\*Requires at least 80% participation of all tasks. Meaning you do the work you will achieve the results.

Now you can listen to Andrew May anywhere, anytime, on any device. The StriveStronger podcast is based on Andrew's obsession to uncover the latest breakthroughs in human performance and make this information available to everyone.

**Strive** = from the Old French origin 'estriver' meaning to struggle, to push through challenges, to compete and come out the other side.

**Stronger** = learning and growing to be stronger in all domains of our lives including physical, psychological, emotional, relationships, career, finances, leadership and more.

Each episode Andrew asks world-class performers in sport, entertainment, science, education, the arts, military and business the important questions to help you adapt their rituals, rules and routines to your professional and personal life. It's like having your very own, on demand, high performance coach.

Andrew May is recognised as one of the world's leading performance strategists. A best-selling author and in demand keynote speaker. Coach to CEOs, leading teams and sportspeople.

Serial entrepreneur. CEO and founder of human performance consultancy StriveStronger.com.

The StriveStronger podcast won't just give you sparks of inspiration, Andrew provides you with strategies to do more, to be more and to create lasting change.

'Andrew has a fascinatingly nuanced and compassionate take on what it is to be human. His positivity is infectious'.

Virginia Trioli, ABC.

Listen to Andrew's podcast to discover the winning formula for any person wanting to get the best out of themselves or their team'.

Kieren Perkins, Olympic gold medallist.

'Andrew's enthusiasm and approach to living a healthy connected life is highly contagious. You need to add this podcast to your playlist'. Lisa Messenger, Founder & Editor, Collective Hub.













REACH YOUR FULL POTENTIAL.
HARNESS INTERNAL SUPER-POWERS.
MASTER PERFORMANCE INTELLIGENCE (PQ).

There were times when six weeks felt too long, but doing it with her husband, Dan, made the difference for Emma, an obstetrician and mother of three. "It was really good," she says, "we could prepare food together and motivate each other." It was the food that Emma found the most enjoyable aspect of Andrew May's 6 Week Shred.

There was a lot of variety and there weren't times I felt like I was denying myself. It's not too rigid," she says. "There are guidelines, but it has a bit of flexibility."

Besides, she says, "I really liked the video recipes – they were creative and there was variety but they were simple. I loved the bircher – I made that this morning.

"There wasn't a lot I missed - my husband missed pizza... and chips, but if he craved chips, we could make some with sweet potato."

While Dan signed them both up, Emma says they are used to doing challenges together. "We always do no alcohol in February."





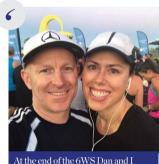
Socialising throughout summer, she says, tends to leave them feeling "a little bit toxic" and not as comfortable in their bodies as they would like, so the 6WS was a chance to reset. They also wanted to prepare for a

10-kilometre run they have coming up. Still, she says abstaining from alcohol was "probably" the hardest part. "There were nights out, like when my son started high school," she says. "There's also the social aspect and it's a way to wind down."

Getting to the 12,000 steps was also a challenge. While she managed 10,000 quite easily, the extra 2,000 meant consciously creating time each day. "My husband would walk to work, instead of driving. He'd take our son with him and they'd have that as a meaningful catch-up time. He also liked doing the stand-up meetings."

All-in-all, Emma expected it to be more challenging." I thought it might be harder," she says. "Now, if the kids get a pizza, I'll have that and it's sometimes easier to get a bowl of oats for breakfast. "But, I'm still trying to do a lot of it – 1 get offered something, like bread and I feel guilty." The payoffs of a little discipline are worth it though, she adds.

"We did lose quite a lot of weight, and we have more energy and muscle tone. I lost 7kg and Dan lost about 10kg. I always had trouble getting under a certain weight and I completely smashed that," says Emma, who has now also swapped dairy for almond milk and who found the Facebook page "really helpful and supportive".



At the end of the GWS Dan and I completed a 10km fun run together. There is no way I would have been able to achieve this before signing up for the program.

### EMMA CHESTERMAN

The best part, she says, is that small changes have made a dramatic difference.

"I was not starving myself and it was just a few modifications. That's also why I feel motivated to keep it up."

"I'm trying to do as much low-carb, high protein as possible, I'm still wearing my FitBit and keeping an eye on the steps."And what started off as the biggest challenges, ended up as some of the easiest. Emma says: "You're more aware of some it and reduce it because you know how good you feel when you have a lot less."

andrewmay.com/6weekshred

Our world-class online courses, calculators, simulators, performance dashboards, inspiring stories, digestible research, monthly forums, group coaching, MatchFit Library and connection to the StriveStronger community are now available as a monthly subscription.

PQ University will educate, engage and elevate. It has the potential to change your life.



## LIVE YOUR BEST LIFE

PQU has been designed as your one stop, online resource centre, guaranteed to get you in the best shape of your life. Whether you want to increase fitness levels, lose weight, eat better, transform your brain, develop a growth mindset, manage stress and recovery, improve relationships, apply the latest human performance science, boost productivity, discover your personal purpose or upskill ready for your next role – PQU has you covered.

#### **WORLD-CLASS COACHES**

Andrew May and Dr Tom Buckley have personally hand-picked a team of global experts in medical science, sleep, genetics, ageing, sports science, exercise physiology, elite sport, physiotherapy, nutrition, psychology, neuroscience, technology and computer science, leadership and workplace productivity to join them in this exciting project.

PQU is like having Andrew, Dr Tom and their team of global experts as your very own performance coach.

#### PQ University includes:

- MFL
- Research Institute
- · Calculators and Dashboards
- Simulators and Performance Dashboards
- Inspiring Stories
- Monthly Forums
- · PQ Community
- · Access to Premium Course Content

# TWO MEMBERSHIP OPTIONS

**OPTION #1: CONSUMER** 

\$29.95 month

OR \$295 for 12 months

**OPTION #2: CORPORATE** 

POA

PQU Corporate includes above plus detailed metrics and reporting, a series of 4 week challenges and a coordinated events calendar.

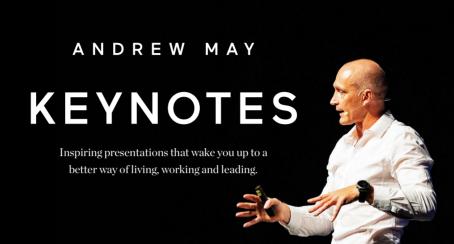












Andrew speaks around the globe at public and corporate events, leadership retreats and industry and innovation symposiums. From the opening keynote address – setting the tone and igniting the crowd – to panels, workshops and intimate gatherings. Let Andrew inspire and inform your audience on how to achieve their personal and professional best. Andrew's most popular keynotes are:

### MF MatchFit

Derived from competitive sport, the term MatchFit means performing consistently over time and showing up for key Performance Moments in our lives. MatchFit teaches you how to make better decisions, work smarter, slow down the ageing process and boost energy.

# Strive

To strive is to make great effort to achieve a goal; to embrace change and step out of your comfort zone. Persevering in the face of rejection and struggling to overcome challenges creates a sense of pride and builds new capabilities. Our most significant growth comes from pain.

# WF Future Proof

To thrive in the new world of work, we need to be WorkFit. We need to cultivate a different set of skills and unlearn many of the poor productivity habits we inherited before technology ruled our lives. Learn how to future-proof yourself and your business.

#### Anatomy of Trust

Consumer trust is at an alltime low. Employees feel increasingly challenged and disconnected in the workplace. Trust is the cornerstone of sustained performance. Learn the anatomy of trust and how to build a culture of trust and respect.

## PQ (Performance Intelligence)

PQ is the capacity to recognise how physical, mental, emotional and environmental states affect our work and life. PQ applies to the way we turn up as parents and to the way we turn up at work, whether we are performing in front of 10,000 people or in front of two.

#### LeaderFit

Leadership has never been more challenging. Leaders have to read, analyse, communicate, make decisions and interact far more compared to a decade ago. Learn how to expand your leadership capacity (personal mastery) and then how to influence and inspire others.

