

Praise for *Death by Comfort*

I loved this book. For where we are at as a species, and also as individuals trying to navigate the beauty and mayhem of the human experience, it is the right book, with the right messages, delivered in an easy-to-understand language, at the right time.

Paul is part educator, part coach, part terrifying drill sergeant and exactly what most of us need. This is an invaluable resource that, for many, will become an integral part of their new operating system.

Craig Harper, speaker, author, researcher, podcaster and PhD candidate

Many of us have been taught to avoid stress. In our most stressful moments, perhaps we have dreamt of escaping to a peaceful island where we can surf and lay in the sun all day. What if this attempt to escape stress is not the solution but the problem? This book shows that rather than avoiding stress, we can use stress to become stronger, more socially connected, healthier and smarter. The book is based on cutting-edge science, is easy to read, and is filled with clear insights and guidance.

Joseph Ciarrochi, professor of psychology and co-author of *What Makes You Stronger*

Paul has a brilliant ability to communicate science in an entertaining and engaging way.

In this book, he expertly describes how the comforts of modern life are eroding our health and wellbeing. Get out of your comfort zone and use your human-evolved big brain to read this book. Although the science can get complex, the messages are not: eat real food, exercise often, get the right level of stress for you to feel motivated, challenge your body outside of your climate-controlled house to deal with heat or cold, build resilience. Apply the book's principles to your life and I'm willing to bet you'll experience the benefits.

Dr Joanna McMillan, nutrition scientist and accredited practising dietitian

In *Death by Comfort*, Paul has gone to the next level in translating bleeding-edge science into practices and tools that you can use every day to give yourself a life that is what you want it to be. Paul says what needs be said: that without unlocking the power of exercise, diet, sleep and managed stress, we can never be the best we can be. More than that, this book will ignite a debate around building a society that makes these things normal and part of what a health system should really do: keep us healthy.

Grant Schofield, Professor of Public Health and Director of the Human Potential Centre, Auckland University of Technology

I've always known Paul Taylor to be a master communicator. Then he wrote *Death by Comfort* and took that term to a new level. This easy-to-read book will truly challenge you to think about what's possible for your future self in all aspects of health. It will help you understand both the consequences of doing nothing and the incredible rewards of getting uncomfortable. You will learn, think and feel differently about how you look after that body and brain of yours. The people I care about will be hearing all about this book.

Lisa Stephenson, high-performance coach, author and speaker

DEATH BY COMFORT

How modern life
is killing us and what
we can do about it



PAUL TAYLOR

MS
MAJOR
STREET

To my wonderful wife Carly, without whom this book and many of my other achievements would not have been possible. To my 'princess warrior' daughter Ceara and my 'little Stoic' son Oscar, who are both a constant source of joy, pride and ikigai to me and Carly.



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Introduction

Ancient bodies and brains in a modern world

*“You’re okay the way you are” is not the right story.
The right story is, “You’re way less than you could be”.*

– Dr Jordan B. Peterson

Imagine the history of the earth as a 24-hour period. The earth forms at midnight and spends the next few hours cooling down from a molten state. Oceans start to form and asteroid bombardments become less frequent. The first primitive life forms appear at around 4 a.m., but it’s not until midday that the atmosphere becomes rich enough in oxygen to support the diversity of life that we know today.

At around 1 p.m., single-celled eukaryotes arrive; it takes another four hours for multicellular life forms to appear. The first aquatic animals don’t come onto the scene until 8 p.m., followed by plants on land at 9 p.m. and animals around 10 p.m. Dinosaurs rule the earth for about an hour, arriving at 10.40 p.m. and disappearing at 11.40 p.m., likely because of asteroids hitting the earth and causing chain reactions that block out the sun and kill off many life forms.

Death by Comfort

Our ancient human ancestors split off from early primates at around two minutes to midnight, and us modern humans don't arrive until the last 15 seconds of the day! Then we get busy trashing the place and destroying our health.

Let's take a closer look at those last couple of minutes of earth's existence, from when the first gorilla evolved. Those two minutes represent around 6 to 8 million years of our early history, during which the chimp and human lineages split off from gorillas and the first upright human ancestor, *Orrorin tugenensis*, emerged. The first of our ancestors to live on the African savannah, *Australopithecus africanus*, appeared around 4 million years ago and had a brain size of around 400 to 500 cubic centimetres. A major milestone in human history occurred with *Homo habilis* – the toolmaker – appearing on the scene between 2 and 2.4 million years ago. Although it still had many ape features, it had a brain size of around 600 cubic centimetres and it traded some of the strength and power of its ape ancestors for dexterity and the ability to make tools, which gave it a competitive advantage.

Around 1.8 to 1.5 million years ago, our ancestor *Homo erectus* developed bipedalism – the ability to walk on two legs. This was advantageous because walking on two legs is a lot more energy efficient than moving on four limbs and is thought by many scientists to free up additional energy to develop a bigger brain, letting the brain of *Homo erectus* reach around 1000 cubic centimetres. There have been archaeological discoveries dating from around this time of the first use of fire by our ancestors, and this ability to cook food – both plants and meat – allowed us to unlock and digest a greater quantity of nutrients, giving us further available energy to devote to a bigger brain. Fast-forward 1 million or so years to 600,000 years ago and our more recent ancestor, *Homo heidelbergensis*, had a brain around the size of modern humans: around 1300 to 1500 cubic centimetres.

Around 200,000 years ago, Homo sapiens appeared on the scene and managed to outlast the closely related Neanderthals to become the prevailing human species. That 200,000 years is a blink of an eye in terms of the evolution of life on earth – it's the last second of our 24-hour analogy! But in that time, we have developed enormous capacities and made huge strides. We migrated out of Africa some 60,000 to 80,000 years ago and reached all four corners of the globe. The broad consensus is that language has only evolved in the last 50,000 years, and the 20,000 years since then saw the earliest evidence of rock art, musical instruments, fishhooks (which further assisted brain development through the provision of plenty of omega-3-rich fish), statues and woven fabrics.

Around 11,500 years ago, some of our species transitioned from hunter-gatherers to agriculturalists – a shift that was critical for the proliferation of our species because it enabled us to grow our population in sustainable ways. We later domesticated cattle, sheep, goats, chickens and pigs. We also 'domesticated' wheat and rice, giving us further certainty of food supplies, and we then learnt how to make alcohol for enjoyment. Around 4500 years ago came the earliest writing on stone tablets and papyrus, and the flourishing of ancient cultures in Egypt, Mesopotamia, Greece and the Indus valley. From this point on, many different cultures flourished throughout the world.

Here's the really important point, though. Up until this point in human history, we lived in highly stressful times. We had trouble getting enough to eat and were intermittently exposed to the stress of hunger, which got worse in winter months. We had to be highly physically active to hunt and gather, and that activity level didn't change much with the advent of the agricultural revolution – we know this because studies show that the Amish community, who live a traditional agricultural lifestyle without cars and modern technology, walk around as much as modern day hunter-gatherer tribes such as the

Hadza in Tanzania. We also spent all of our history to this point eating natural food sources in our local environment, including tubers, fruit, vegetables, nuts, seeds, and prey such as animals, birds and fish. The agricultural revolution added some greater certainty and provided the opportunity to make bread and drink the milk of domesticated animals (leading to one of the only changes in our genome in the last 10,000 years – changes in the expression of our lactase enzyme, allowing us to continue to digest milk and other dairy products after weaning), but we still ate local, natural foods. We went to bed when the sun went down and got up when the sun rose. We sat around the fire telling stories, passing on knowledge from one generation to the next. Everyone in the tribe or group had a role to play, and hence a sense of purpose and contribution, even from a young age. Life was hard and physically challenging, but we had strong, supportive tribal relationships to help us get through challenges.

The first and second industrial revolutions, from around 1750 to the early 1900s, propelled the human race to new levels of growth and prosperity, with invention after invention giving us the ability to expand our race and bring increasing levels of comfort into our lives. The third industrial revolution, often called the digital revolution, began in the late 20th century and involved technologies such as electronics, computers, telecommunications, smartphones, nuclear energy and the internet. Life expectancy has exploded, from around 27 years in the early 1700s to the low 80s in advanced nations now; as has the human population in that time, from around 0.7 billion people to 7.9 billion today.

However, not all of these advances have been good.

In advanced economies around the globe, we are now firmly ensconced in what I call the ‘comfort revolution’, where humans have massively expanded our ability to do two things that go against the current human genome when they’re done in excess: the ability to

avoid discomfort and the ability to engage in pleasurable activities. This is reflected in the shocking health statistics, which are getting worse:

- In 2022, 60 per cent of all US adults were living with a chronic disease, with 40 per cent having more than one.
- In 2018, 47 per cent of all Australians (and over half of all adults) had at least one chronic disease, an increase of more than 10 per cent in the last decade.
- In both countries, around 20 per cent of people experience a mental illness in any given year, and this figure is much higher for teenagers. It's projected that around half of the population in both countries will experience a mental illness at some stage in their lives.

These statistics are not unique and are mirrored in many developed nations.

Homo sapiens evolved and thrived because we could hunt and gather. Both involved high amounts of physical activity, and the ability to run for long distances meant we could hunt down prey with the tools we made. Modern science has clearly demonstrated that being highly physically active is necessary for the proper functioning of our bodies and brains, but most of us no longer have any requirement to do physical activity at a level more than the average sloth. We can change the TV channel, close the blinds, and ask Alexa to dim the lights and play music without having to get off our arses, and we spend more and more of our lives sitting down, often glued to screens. And that type of lifestyle ruins our physiology and, hence, our physical and mental health.

No longer do many of us have to worry about getting enough food, because there's now food available on every street corner and a host of new, flourishing businesses that will deliver almost any food we want to our door with a few taps of a smartphone. In many developed

nations, ultra-processed food makes up 50 to 60 per cent (or more) of our diet. This food is a far cry from what our ancestors ate, and it's designed to hijack our brain's reward systems to make us crave more while making us fat and sick, as we'll see in chapter 4.

Exposure to cold and heat caused our ancestors to upregulate critical stress response genes, which made us more resilient; now, our thermoneutral environments are making us soft and contributing to our ever-expanding waistlines. For most of us, our mastery of indoor heating and cooling, coupled with amazing clothing, means that we never have to be too hot or too cold, which robs us of ancient mechanisms for adapting to our environments that have great benefits at a cellular level, which we will explore in detail.

We used to go to bed and get up with the sun. Now, we are destroying our circadian rhythms and sleep cycles due to artificial light and stimulating activities such as Netflix and social media. This screws with our metabolism in a mind-boggling number of ways, dramatically increasing our incidences of many diseases.

Our kids used to go through challenging rites of passage to transition into adulthood. Now, most are brought up on a diet of addictive, narcissistic technology, and molycoddled to the point where they're not prepared for the real world and even moderate stress causes them anxiety.

We used to live in small tribal communities where everyone had a role and purpose. Now, we are digitally connected and physically disconnected, with few meaningful relationships and a chronic loss of meaning and purpose.

Society has 'evolved' to the point where we get offended if people have opinions contrary to ours, we attack them on social media and block them so we don't have to hear the counterargument. Many countries have ten days of paid sick leave that you're entitled to take, whether you're sick or not, and we can take a mental health day if we're

feeling a bit off. We can now go to the doctor and get antidepressants or anti-anxiety medication to stop us experiencing negative emotions that are a natural part of life.

Opting out of negative experiences was not an option for our ancestors – and it built resilience. They had to be physically and mentally tough to survive in a dangerous, challenging world, which enabled us to exist today. A wide range of societal and technological advances have made modern life safer and less challenging, but an unintended side effect is that we've become physically weak and mentally fragile.

We are the most overweight, depressed, medicated and addicted cohort of humans that has ever lived, yet life has never been so good!

Clearly, something is wrong with modern life. We are ancient genomes in a modern world, and it's not going well.

This book explores exactly what's wrong and what we need to do about it.