CHRIS DRAPER



THE INNER ATHLETE

A MUSICIAN'S GUIDE TO PERFORMANCE CONDITIONING

CHRIS DRAPER

The Inner Athlete: A Musician's Guide To Performance Conditioning

68 Tips to Master Your Physiology, Perform at Your Best, and Become an Athlete in Your Own Right

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How To Read This Book (A Note From Chris)

Hey there,

Thanks for picking up a copy of The Inner Athlete—I hope you enjoy it.

Before we get into the task at hand, I want to let you know that this book is not designed to be read from cover to cover. You can, of course, if you want to. But there's a huge amount of information in the following pages, and you are likely going to have many questions along the way.

To help you follow your curiosities in the best possible way, this book is broken down into sixty-eight actionable tips. That means you can read it in an order that meets you where you are right at this moment in time. Not every tip will be applicable to where you are right now, so I want to encourage you to use it more as a reference guide you can pick up and put down many times over the coming months and (hopefully) years. Right now, you need the next best step to help you on your journey. The aim of the book is to help you become as productive as possible, and trying to absorb everything at once could send you into a state of information paralysis.

I recommend reading Part One in its entirety first. Then flick through the tips and stop whenever a tip title catches your eye. Make a mental note of the other tips as you flick through so you know what else is here for future reference, then read Part Five from start to finish. You will then be able to use this guide as a "first port of call" as and when you meet your next hurdle, and the inevitable hurdles that come after that on your journey through the music industry. To make your life just that bit easier, I have also included a "quick

reference checklist" at the end of each section to help you put the information in this book into action as fast as possible.

In Part Six, you will find a comprehensive list of further reading designed to help you dive deeper if you want to continue your learning and follow your curiosities. I have no affiliation with any of the books, studies, or articles listed. I include them purely out of generosity, as it has taken me roughly six years to compile this information into the set of stepping stones you are about to embark on crossing.

Thanks again for choosing to read The Inner Athlete.

Chris x

I

PART ONE: THE GAME WITHIN THE GAME

The Game Within The Game

In the world of sport, the relationship between physical conditioning and performance has been understood for decades.

It's baked into every elite sports person's daily routine, and no serious athlete would be without a comprehensive strength and conditioning plan to complement their sport-specific training.

Take golf, for example.

On the surface, it's a game of skill with the finest of margins. Anyone who's been to a driving range or played a few rounds on the weekend understands how frustratingly difficult it can be. It requires years of dedication to get good.

It's not dissimilar to music.

It takes an inordinate amount of time to get to the point where you are able to navigate your instrument in a way that would hold up under the pressure of a gig, and even then, I'm not sure the "beginner's frustration" ever fully goes away.

In my early days, I have memories of throwing my drumsticks across the room in the red-faced frustration of learning basic technique. I have similar memories of slamming the piano lid shut in a rage over contrary motion scales. And I have a vivid recollection of trying to resist the same urge when it came to the violin, only to stop short of snapping my bow in two for the thought of my mum's reaction.

At the risk of painting myself as a kid with anger problems, I'm sure you have your own version of a similar story.

It's not a million miles away from hearing the echoes of Scott from down the road at number 57, the retired city slicker, driving off from the eleventh

tee down a long par 5, only to hurl his club at the golf buggy in the realisation he'd sliced the ball and ended up in the lake... again.

If you've ever played golf, you've likely experienced the same sense of annoyance.

It's a long road for a golfer to go from the basics of technique in a youth programme, all the way to the elite level of the sport.

If they manage to stick it out, by the time they reach the top of the ladder, they will have learned a thing or two about how to play the game and how to prepare themselves to deliver consistently. At the end of the day, it's their ability to reliably produce results that's going to win them the round, and, ultimately, the tournament.

Their routines will differ, but at a high level, a world-class golfer will focus on only four things:

1. Physical conditioning
2. Mental conditioning
3. Golf-specific practice
4. Active recovery

When they're in their off-season, their week is likely comprised of forty hours of practice on the range.

And, for all of their hours spent refining their swing and dialling in their short game, they'll also spend ten hours a week or more in the gym.

They understand the rotational power and sheer strength needed to drive the ball 300 yards, as well as both the endurance and durability required to maintain their peak game across 18 holes. They know, deep down to their core, that their skill is only as reliable as the body that's delivering it.

To the average punter, their game looks completely effortless.

The more work they put in, the less it looks like they're trying. Their body moves as a single, fluid entity, and the hours of technical work come together into an end result that looks like nothing other than pure, raw, natural talent.

But the player knows something more. They're barely even playing the game you're watching. They're playing the game within the game.

That's the game that separates the winners from the pack.

Tiger Woods demonstrated this point back in the nineties.

When he first arrived on the PGA Tour, he was one of just a few players in the gym. Everyone else showed up, hit balls, and went home. On the other hand, Tiger's daily routine was something else entirely. He'd start with a four-mile run first thing in the morning. Then hit the gym for a full weights session. Then spend two to three hours hitting balls. Then play a round. Then work on his short game. Then another four-mile run. And if anyone wanted to play basketball or tennis after he was done with his relentless schedule, he'd do that too. By his own account, he'd train for up to ten hours a day outside of tournaments.

He ended up winning fifteen major championships and redefined what a golfer could be.

Rory McIlroy took that blueprint and proved its effectiveness.

In the summer of 2010, McIlroy was the most promising young talent in golf. But he hadn't yet won a major. That September, he started working with an exercise physiologist. Nine months later, he'd won the US Open by eight strokes. His body fat dropped from twenty-two per cent to sixteen per cent. And he went on to win four majors and reach world number one.

When questioned whether the gym work was necessary, McIlroy said, "I sometimes get questioned about the amount of stuff I do in the gym by golfers who wouldn't know any better. I just have to say, look at who I was and where I was as a golfer in 2010. I started training in September 2010 and look at me now."

If you've ever seen McIlroy tee off at the PGA, it's something else.

This narrative doesn't just play out in golf, either.

At the time of writing this book, basketball player LeBron James is forty-one years old, in his twenty-third NBA season, and is still playing at an elite level at an age when most players have been retired for years. The widely reported figure is that he spends $1.5 million a year on his body. He's never confirmed the exact number, but he's never denied it either. Cryotherapy. Hyperbaric chambers. Cold plunges. Personal chefs. Massage therapy. Red light therapy. Soft tissue work. The works.

Basketball is his craft, but everything else builds the foundation on which that craft sits.

Then there's Cristiano Ronaldo.

Forty-one years old and still playing professional football. That length of career requires careful engineering. His body fat sits at around seven per cent, which is comparable to that of athletes half his age. He trains three to four hours a day, five days a week. Sprint intervals, agility drills, functional strength work, core stability, and a recovery protocol that includes cryotherapy and data-driven load monitoring. His sleep strategy is meticulous, too. He reportedly follows a polyphasic approach, structuring his sleep around ninety-minute cycles to optimise recovery between training sessions.

And then there's Formula 1.

Drivers train their necks to withstand 6G of force through a corner, their cardiovascular systems to sustain 170 bpm for two hours, and their reaction times to operate at the edge of human capability. There are strict weight limits, too. Jenson Button maintained a race weight of around 70kg during his time in the driver's seat. That required careful nutritional consideration. Since he left the sport, he's got into HYROX and has put on an impressive 11kg of muscle.

None of these people leaves their physical and mental preparation to chance.

They all invest in the platform on which their skill sits.

They have strength and conditioning coaches. They use sports scientists. Nutritionists. Recovery specialists. Load management protocols. Carefully considered, periodised training blocks. They treat the body as a vehicle. And they maintain that vehicle with the same precision they bring to their craft. And if they don't do that, they won't get very far.

Their skill is only as good as the body delivering it, and that's the idea the world of music has never adopted.

So why has the music industry, with an entire ecosystem built around human performance, never stopped to ask how we prepare the mind and body that does all of this?

Now Let's Talk About Music

In the world of music, the relationship between physical conditioning and performance barely exists.

And there's a deep, structural reason for that.

In sport, performance is objective. There's a clock. A scoreboard. A finish line. A measurable distance between first and second place. You either ran faster, jumped higher, scored more... Or you didn't. The feedback is immediate. And there are slow-motion replays to help every man and his dog assess the reasons why the point was lost. The incentive to condition the body is obvious, because it's the difference between winning and losing.

In music, performance is subjective.

There's no stopwatch. No scoreboard. Whether a performance was good or not is purely a matter of opinion, taste, or feeling. And because there's no objective measure of physical output, there's also no obvious incentive to train the body that produces it.

Instead, we've built an entire culture around a different idea...

Talent.

The school I attended from the age of thirteen to eighteen called itself "A School For Gifted Musicians", as if the ability to play was something you were handed at birth. Years later, I ended up teaching there. When I went back, I could objectively see how deep the narrative ran and how it was (unknowingly) misleading the great musicians of tomorrow by leading them to believe they were innately talented and "above" the fundamental ideas that fuel the success of elite athletes. It fosters laziness and a sense of entitlement. I know, because that was me as a teenager. The (not so) funny thing is, physical overuse injuries were rife among my peers at school, and it was sadly no different when I went back on the other side as a teacher.

That's not a dig at the school, by the way... It's just an observation of how we don't question traditional wisdom, and how we tend not to draw the links between that outdated wisdom and the demands of the modern musician.

We talk about "natural talent", "prodigies" and being "born to play".

We romanticise the idea that great music comes from somewhere magical.

And before you say that there *is* something magical about the way some people play... I do agree. The best music is the music that makes the hairs on your arms stand up on end. This phenomenon is called "frisson", and at the time of writing this book, neuroscientists are still unpicking exactly how it works. Regardless, though, of whether there is or isn't an other-worldly factor, the sound still has to come from (or at least pass through) multiple layers of physicality.

The bigger problem is that this narrative breeds complacency.

If your ability is a gift, why would you need to train for it? If your performance is an expression of innate talent, what good could the gym possibly add? The whole framework, from music schools to the professional circuit, is built on the assumption that the only preparation that matters is the kind that involves your instrument.

Practise more.

That's the answer to everything.

And so, musicians don't train.

They don't condition their bodies. They don't have strength and conditioning coaches, sports scientists, recovery protocols, or periodised programmes. They don't monitor their load. They don't manage their fatigue. They don't invest in the physical and mental infrastructure that keeps them available to perform.

That's not to say we need teams of coaches and advisors like those in elite sports. There's no way the average musician could afford that. It would only be possible for the top fraction of a per cent of the industry. But that's not to say you shouldn't adopt the same mindset on a smaller scale.

You can still train the physical foundations of your craft with diligence. You can still implement a toolbox of mental conditioning protocols. And you can still learn how to recover intelligently.

At the end of the day, musicians perform more frequently than almost any athlete on the planet. A Premier League footballer plays fifty to sixty matches a year. A West End musician will play over four hundred. A touring musician might play a hundred and fifty shows and media performances across six months, often with travel, broken sleep, and no recovery protocol to speak of.

The physical demands are relentless, the support structures are nonexistent, and the result is an industry with some of the highest burnout and injury rates of any professional field in the world.

It's Not You. It's The System.

This book exists because of that gap.

Not the gap between music and sport. That's just one example, of which I have plenty more (as you will find out throughout this book). I'm talking about the gap between what you're asking of your physiology on a daily basis and what it's currently prepared to do.

Right now, for most musicians, those two things are miles apart. You're asking your body to perform at a high level, night after night, year after year, with little or no strength and conditioning plan, no intelligent recovery strategy, no periodisation, and very little understanding of the systems that underpin your ability to do what you do.

But it's not your fault.

We're not taught how to prepare ourselves through this lens.

There's no equivalent of a sports science department at music college, and certainly no cross-talk between departments at university. There's no pre-season. No coach pushing you to get your act together. And no recovery protocol handed to you when you join a commercial production or touring artist's band. The entire discipline of physical and mental preparation for musicians simply doesn't exist. At least, not in any structured, widely understood, or properly resourced way.

In sport, "strength and conditioning" is a profession.

You need qualifications to work in the field. There are teams of coaches with department heads. There are journals, conferences, and governing bodies. And it's woven into the fabric of every serious sporting organisation.

But in music?

Nothing.

I ask you, whether you're a performer, a manager, a crew member, or anyone else in this vast industry... How is it that every other high-performance

profession on earth has figured this out, but we haven't?

Fighter pilots condition their bodies to withstand forces that would make most people black out. Dancers have entire physiotherapy teams embedded in their companies, vocal coaches, and dedicated strength and conditioning programmes. Even in the corporate world, the narrative has changed. Senior executives have performance coaches, and CEOs talk openly about their training routines, their sleep protocols, and their nutrition strategies. The link between physical readiness and professional output has become common knowledge in boardrooms around the world.

Musicians, on the other hand, are left to figure it out on their own, if they figure it out at all.

And that's a big problem.

The music industry is driven by the people who work within it.

The global live music industry is worth over $40 billion a year. In the UK alone, it contributed £8 billion to the economy in 2024. Across that same year, according to LIVE, a live music event took place every 137 seconds. And every major tour that rolls through from around the world brings an economic ripple. Hotels. Restaurants. Transport. Local businesses. Spending in these areas dwarfs ticket sales revenue. When Taylor Swift's Eras Tour came to the UK, the estimated economic boost was nearly £1 billion.

Behind every one of those shows is a huge machine. Bus drivers, riggers, sound engineers, lighting techs, caterers, merch teams, tour managers, production managers, promoters. From the person loading the truck at 6am to the label executive signing off on the budget, there's a vast ecosystem of people whose livelihoods depend on one thing... The show going ahead.

When that can't happen, the whole thing grinds to a halt.

In 2007, Phil Collins dislocated a vertebra during Genesis's reunion tour. In his own words: "My vertebrae has been crushing my spinal cord because of the position I drum in. It comes from years of playing."

Years of drumming had destroyed the nerve function in his hands. By his final show at the O2 in 2022, his son, Nic Collins, was behind the kit. One of the greatest drummers of his generation was forced to down tools not because of age or bad luck, but because of a postural injury.

At the other end of the age spectrum, Shawn Mendes, the multi-platinum pop artist, cancelled over eighty shows on his Wonder World Tour in 2022 when he was only twenty-three years old. He'd been touring since he was sixteen, and in a statement issued in July that year, he said, "After a few years off the road, I felt like I was ready to dive back in, but that decision was premature and unfortunately the toll of the road and the pressure has caught up to me and I've hit a breaking point."

Eighty shows. Venues booked. Crew contracted. Hotels reserved. Local economies expecting the business.

All of it, gone.

These are just a few of the ones that make the news.

For every headline, there are thousands of working musicians quietly managing tendinitis, back pain, shoulder impingement, and repetitive strain injuries that nobody hears about. People like you and me.

Studies consistently back this up. In one such study, sixty-eight per cent of drummers reported musculoskeletal disorders from playing. In another, ninety-seven per cent of female and eighty-three per cent of male orchestra musicians experienced injury-related symptoms in a single twelve-month period.

These aren't just random occurrences.

It's a systemic pattern of physical breakdown.

The Cost of Doing Nothing

In sport, they have a word for this.

They call it load management.

They invest millions in preventing exactly this kind of breakdown, because they understand that the cost of prevention is a fraction of the cost of failure. They treat physical preparation as a form of performance insurance.

In music, we have no equivalent.

We don't understand load management. We have very few injury prevention protocols beyond "rest when it hurts". And we rarely utilise strength and conditioning programmes. The industry spends millions insuring against

cancellation, but almost nothing preventing the very thing that causes it.

That's not just a missed opportunity.

It's an epidemic hiding in plain sight inside an industry worth billions to our local and global economies.

If this were a sport, there'd be a department for it with a Head of Performance. But in music, there's not much more than a packet of ibuprofen in the dressing room and a narrative of pushing through.

I'm here to tell you that it doesn't have to be that way.

The sixty-eight tips in this book form the foundation of the work I do with my clients.

Sure, the aim is to train the physiological and psychological systems that underpin your craft. But it also goes far beyond that. I've said for years that my job as the drummer for the West End production of Hamilton is more like a sport than a creative pursuit.

And, as if it wasn't clear enough to me already, two brain injuries back in 2023 brought that world-view to an even sharper focus, changing my relationship with my instrument, music, and the industry in the process.

Performance Conditioning was born out of the realisations I made throughout my three-year recovery, combined with five years of active research, multiple new qualifications, fifteen years of teaching experience, and twenty years of playing the drums professionally.

What you learn in this book will hopefully become the backbone of the way you go on to train for both your performing endeavours and your life outside of the industry. And so, to help you do that in the most clear way, the chapters that follow are split into three categories:

1. Physical conditioning
2. Mental conditioning
3. Active recovery

Each chapter is built on the simple idea that your skill must sit on top of a strong physiological and psychological foundation. And if that foundation isn't fit for purpose, no amount of time spent slaving away over a hot metronome will

make up for it.

You don't need to become a gym junkie. All you need is to start treating your body with the same level of thought that you bring to your instrument. Forty-five to sixty minutes, two or three days a week. And maybe a bit of mental energy set aside for the strategic work.

That's it.

It's not about aesthetics, six-packs or personal bests. The athletes I mentioned earlier didn't get where they are because they're more talented than everyone else or because they took a "Sizzlin' Summer 60-Day Transformation".

The difference is that these people built the infrastructure to let their hard-earned skills shine with ease and consistency. They invested in themselves. They put "the car in for service". And they treated their physiology as the master key that unlocks all other doors.

You can do the same.

You just need to know how.

In the chapters that follow, you'll learn how to build the kind of physical foundation that supports the countless hours you've put into your craft, as well as how to train your mind, stay focused under pressure, and reset when you start to burn out.

Contrary to popular wisdom, this stuff isn't personality-driven. It's entirely trainable from the ground up. Underneath it all, you are an athlete. You just might not realise it yet. And you deserve both a plan and a methodology that is built on more than Instagram reels and "gut instinct".

If you follow and execute just a few of the tips in this book, you will see the benefits. And with every additional tip you follow, the more you will acquire the sort of foundations that allow you to perform effortlessly, at a higher level, with more consistency, and with less risk of injury.

It is these elusive traits that go viral on social media but are mistaken for mere "talent". They are the reason some people look like they just "have it". But effortlessness isn't talent. It's engineered. And it is through reading this book that you will learn how to engineer it for yourself beyond just locking yourself away in a practice room and working blindly on your craft.

By now, you should understand that you are leaving so much on the table if you don't train the foundations on which your craft is built.

But there is another layer.

A layer that sits at an even more foundational level than anything else. You can think of it as the sub-base of your foundations, and without it, nothing you do will fall into place in quite the right way. Unfortunately, I can't tell you what it is. Not because I'm being difficult or because I'm holding something back, but because it's personal to you. It's unique and deeply felt, but also elusive, which makes it hard to pinpoint.

The answer is hidden within these pages, and I hope you discover it upon the first read. That said, you may need to come back for a second pass to hunt for missing clues. Either way, once you've found it, you'll realise it was staring you in the face the whole time. And I trust that you will get there eventually.

For now, let's get started.

II

PART TWO: PHYSICAL CONDITIONING

Introduction To Physical Conditioning

Two and a half thousand years ago, the gym was a very different place.

Back in Ancient Greece, gym goers trained completely nude and covered in olive oil. Training this way was normal. It was so normal, in fact, that the word "gymnasium" comes from the Ancient Greek word gymnazein, which literally translates as "to train naked".

What a time to be alive.

For them, it wasn't just about the body.

The idea of training the body and mind as a single entity was considered normal practice. It was commonplace to find people doing their squats and pull-ups on one side of the building, while philosophers like Plato and Aristotle taught on the other. They believed the body and mind were one unified system. They even had a phrase for it, "Kalokagathia", which roughly translates as "beauty and goodness together". The idea was that physical excellence and moral character were intertwined. They had another word, "arete", which translates as "excellence" or "virtue", and it applied to the whole person. You couldn't have arete with a sharp mind and a neglected body, or vice versa, and the idea of health was total.

You can see, with so many words in their day-to-day languaging pointing at the same idea, that the ancient approach to health was deeply connected.

Fast forward to the modern day, and things have changed somewhat.

We have commercial gym chains. Resistance machines. Bodybuilding splits (where you train chest on Monday, back on Tuesday, and legs on... well, never). CrossFit. F45. Peloton. Joe Wicks' HIIT sessions. HYROX. And "fitfluencers" who flaunt beach bodies across social media from Dubai to Thailand.

The training philosophies we use these days would make little sense to the Ancient Greeks, because what sense does it make to isolate body parts or train just for a six-pack?

At the end of the day, for the average person, doing something in the gym is better than nothing. And many of the fitness trends we see on Instagram and TikTok are a great way of helping you to get off the starting blocks. But they also promote poorly executed exercise. HYROX, CrossFit, HIIT, Barry's... It's high-intensity work skewed towards high volume. But as a musician, is that really the best thing you can do?

I would wager not.

Volume-based work promotes fitness without injury prevention.

As a musician, you are (whether you realise it or not) already an athlete in your own right. And in terms of training, you have more in common with the Ancient Greeks than you do with any of the more modern fitness crazes. Your body and mind are a *still* single entity, and so, the only way you can succeed with your instrument and live out a long career is if you start treating it as such. You need to work slowly and progressively, with a focus on quality of movement, tendon health, mobility, stability, and a host of other things.

Granted, the demands of our lives these days are completely different. But that's sort of the point. The demands you place on yourself as a musician really are completely different from those of most other people. And your training should reflect it.

All of that said, I don't need to worry about you... You're reading this book, which means you've already clocked on.

Physical Conditioning is the first pillar of your development as an athlete. In this section, we're going to go back to basics and build your physical foundation from the ground up. I'm going to help you develop the training mindset of an Ancient Greek*. And I'm going to help you develop the tools to build your capacity in a way that translates directly to your professional needs.

Let's get into the tips.

**naked training not compulsory (but you do you).*

Chapter 1: Foundations

> *"I fear not the man who has practised 10,000 kicks once, but I fear the man who has practised one kick 10,000 times."* **— Bruce Lee**

In 1964, Bruce Lee asked a volunteer at the Long Beach International Karate Championships to stand in front of him.

He placed his fist against the man's chest, no more than an inch away. Then, with a single punch, he sent him flying backwards into a chair. The "one-inch punch" became the most famous demonstration of physical power in the history of martial arts.

The thing that made it possible wasn't just the show of strength. It was efficiency of mechanics. Hip rotation. Foot placement. Wrist alignment. Breath and bracing. Every fundamental principle of how the human body generates force, compressed into a single inch of movement.

His philosophy was built on a single idea: "It is not daily increase but daily decrease."

In other words, to achieve such mastery, you need to hack away the unessentials ruthlessly.

Bruce trained six or seven days a week, but the telling thing about his training logs is what happened over the course of his career. His sessions started at ninety minutes. But by his later years, they were only twenty. It's not that he was doing less work. It's that he'd eliminated everything that didn't produce results. Compound lifts replaced isolation exercises. Flashy techniques were dropped in favour of direct, repeatable ones. His martial arts system (Jeet

Kune Do) was even founded on the same principle...

Absorb what is useful, discard what is useless.

If you're new to training, it's tempting to add more and more to your sessions. The same applies to your craft. Up to a certain point, you need more stimulus to move the needle. But once you reach that point, it's the elimination of the "fluff" and a revisiting of the foundations that will move you on to the next level. With my clients and students, we call this idea "Advanced Fundamentals". It's a relearning of the fundamentals, but with the benefit of hindsight.

The physical demands of playing an instrument sit on top of how well your body moves, stabilises, and generates force. If those foundations have never been trained (and for most musicians, they haven't), then everything you're doing on stage is built on top of compensations you can't see.

And so, in this chapter, we're going to start pulling that idea apart.

Tip 1: Breathe Backwards, Not Upwards

You've probably heard a lot of people tell you to breathe from your diaphragm, or to breathe deeply, or to use box breathing.

But none of that matters if the basic mechanics are wrong.

You breathe around 20,000 times a day. That's over seven million times a year, and somewhere north of half a billion times over the course of your life. So even though you might feel like you're doing it right, it's worth taking the time to address the foundations of the foundations.

When you break it down, breathing is surprisingly complicated.

Luckily, there's one cue that seems to bring everything into line for everyone I've ever worked with. So it feels like the right place to start.

It feels natural to breathe upwards.

After all, your nose is triangular, so you'd think it would be safe to assume that your airway follows the shape of your nose. It doesn't. It goes straight back towards the back of your head. The result of this misconception is "upward breathing". Although it starts in the head and face, the pattern is repeated

through your entire body with shallow, fast, chest-dominant breathing, and if you spend most of your life under some form of pressure (which, as a performer, you almost certainly do), it becomes habitual.

Shallow, "up" breathing causes upper back tension, poor thoracic (mid-back) mobility, disrupted sleep, heightened anxiety, a nervous system that can't fully downregulate, and sometimes even restricted movement from the shoulder and arm. All of this is caused by a combination of what we call "breath mechanics" and the downstream effects of these mechanics on blood chemistry.

To fix this, instead of breathing upwards, breathe backwards.

This cue automatically directs your inhale toward the back of your ribcage and down into the diaphragm. Without thinking, it will shift your breath mechanics from upper-body bias to a full 360° "downward" breath that engages the diaphragm, expanding through the sides and into the back of the ribcage. This activates the parasympathetic system, opens the thoracic spine, and creates intra-abdominal pressure that stabilises your core from the inside.

James Nestor's research in "Breath: The New Science of a Lost Art" found that modern humans are the worst breathers in the animal kingdom, largely because our airways have narrowed over thousands of years of eating soft, increasingly processed foods. A Stanford study he participated in showed that switching from mouth to nasal breathing for just ten days measurably improved blood pressure, heart rate variability, and sleep quality. That same study found the reverse was equally dramatic, with ten days of forced mouth breathing causing blood pressure to spike, snoring, and an increase in stress hormones.

So, it pays to realign yourself with "proper" breathing!

Try This:

Stop reading for a moment, and experiment with visualising your airway tracking directly backwards towards the back of your head. Now try a few deep breaths, breathing directly through the line you are visualising. Pay attention to your ribcage fully expanding, and how your core actively turns on as a result

of the change in mechanics.

If you can't feel your ribcage expanding, give this a go, too:

Lie face down. Put your fists under your forehead. Breathe in through your nose and focus on pushing your belly into the floor. Feel the expansion through the entire abdominal wall with a focus on the back of your ribcage. Hold at the top for a second or two. Exhale slowly through your mouth. Repeat for three to five minutes. Focus on your back expanding away from the floor, keeping your shoulders as still as possible.

Tip 2: Use Nasal Breathing as a Training Lever

Now we've addressed technique, let's look at how you can use it to your advantage.

Nasal breathing during training (and practice) adds resistance and forces adaptation of the respiratory system, just as adding weight to the bar adds resistance and forces adaptation of the muscular system.

It increases CO2 tolerance (your body's ability to handle the discomfort of carbon dioxide buildup without panicking into a mouth breath in a bid to increase oxygen levels). It boosts nitric oxide production, which dilates blood vessels and improves oxygen delivery to working muscles. And it enforces proper breath mechanics, because you can't hyperventilate through your nose the way you can through your mouth.

All of that is to say... It's a much better way of breathing if you want to get the very most out of your training, as it has a very real, very direct impact on your ability to perform.

You can also use air hunger as a training lever for cardio intensity, just as you might with speed, distance, or heart rate. To do this, breathe exclusively through your nose during your training session and let the discomfort levels of air hunger dictate the intensity of your effort. When you track this alongside other metrics like distance, speed, and weight (depending on the type of exercise you are doing) you can actively observe the progression and adaptation of your blood chemistry as your breathing becomes more efficient at a cellular level. Pretty cool.

Think of it like the sorts of high-altitude work that elite athletes do in their training for the Olympics, except you don't need a mountain.

Eliud Kipchoge, widely regarded as the greatest marathon runner in history and the first human to run a marathon in under two hours, is a nasal breather during training. So is Laird Hamilton, the big wave surfer, who credits breath training as the single most important element of his physical preparation.

Don't get me wrong, it's hard. It takes practice, and the first few sessions will feel suffocating. If your body isn't used to it, your brain will do everything it can to get you to open your mouth. But if you can push through it, over a few weeks, your CO2 tolerance will improve, your breathing pattern will recalibrate, and what felt like drowning without being underwater at first will become completely comfortable.

Time to start employing that stoic mindset!

Tip 3: Train From the Ground Up

I have a rule with my clients that they train either in barefoot shoes or in socks.

Your feet are the foundation of your entire kinetic chain, and everything above is only as stable as your feet and ankles.

Modern shoes have thick soles, raised heels, and narrow toe boxes that allow your feet to "switch off". Your body is inherently lazy, and if it doesn't need to do a job, then it won't do it. That's a big problem when it comes to your feet, as it causes your arches to flatten, meaning your glutes can't engage as effectively, so you can't stand up fully, and your lower-body tracking and alignment will be off.

When your glutes are engaged and your arches are active, your knees and hips can work properly. That means your nervous system can better balance the rotational forces at work throughout your lower body when you're walking, running, squatting, jumping, and just going about your daily life.

Conventional shoes are essentially casts for your feet. The cascade of dysfunction that follows from weak feet is one of the most overlooked causes of chronic pain in the modern world. But it's an easy fix. In fact, a 2019 study in the Journal of Foot and Ankle Research found that just eight weeks of

barefoot training significantly improved foot muscle strength, arch height, and dynamic balance.

If your foot and ankle muscles can't fire properly, you might find you have tight hip flexors, knee issues, and even lower back pain through misalignment of the pelvis.

I'm not affiliated with them (although I wish I were!), but if you're looking for a good barefoot shoe, I swear by Vivobarefoot.

Tip 4: Train Your Core for Way More Than Abs

When most people think "core", they think "abs".

But your core is far more than that. At its core (sorry, not sorry), its purpose is to transfer energy from the lower body to the upper body, and from the upper body back down to the lower body. It can do that in eight different ways, and understanding them will fundamentally change how you think about core training:

1. Rotation (twisting)
2. Flexion (pulling forward)
3. Extension (pulling backwards)
4. Lateral flexion (pulling sideways)
5. Anti-rotation (resisting twisting)
6. Anti-flexion (resisting pulling forward)
7. Anti-extension (resisting pulling backwards)
8. Anti-lateral flexion (resisting pulling sideways)

Dr Stuart McGill, the world's leading researcher on spinal biomechanics, spent over thirty years at the University of Waterloo studying how the core functions under load. His research consistently shows that core endurance, not core strength, is the primary predictor of lower back health. His "Big Three" exercises (the curl-up, the side plank, and the bird-dog) are built around anti-movement patterns that train the core to resist force rather than create it. That's a different world from sit-ups and crunches, and it's one that the

athletic world has fully adopted, even if the mainstream fitness industry hasn't yet caught up.

If you don't have a strong core, you really don't have a strong anything.

Every movement pattern requires the core to brace and transfer force in different ways before the primary muscles can effectively do their job. For musicians, this is really important. What we do isn't explosive or obvious in terms of the core demand, and so it's easy to think you can get away without training it. But if you have a weak core that can't express force properly, it shifts the load onto other structures that weren't designed to carry it. Your neck might brace. Your shoulders might lift. Or your pelvis and lower back pick up the slack. Whatever it is, it becomes a breeding ground for dysfunction later on.

Even if you play a predominantly upper-body biased instrument like the violin, you'll find you become more grounded and better coordinated as a result of dedicated core work. One of my clients (who plays violin with a well-known Pop act) brought this up with me as a surprise benefit of developing his core from multiple angles after just a few weeks of proper training.

So, stop thinking about core training as "ab training". And start thinking of it as a vital element of your programming.

To get you off the ground, here are four ways you can bake core training into your sessions without having to add a whole section to the back end of your workout:

1. Instead of a regular row, try it from a bird-dog stance.
2. Instead of a chest press, go for a hollow-body press.
3. Swap machines for TRX.
4. Work unilaterally.

Tip 5: Make Cardio Fun

Do you love cardio? Or do you hate it?

I'm yet to meet someone who sits between these two camps. If you dread it or find it boring, this might be your chance to reframe it as something that

is... Dare I say it... Fun.

I'm all about efficiency, and nothing makes me happier than when I can train multiple systems of the body at the same time. That's no different when it comes to cardio. Sure, there's a space for steady-state cardio like long runs, rowing, and cycling. If you hate cardio (or you think you do), this is the sort of work that likely comes to mind when someone says the dreaded "C" word. For me, it's a great way to decompress mentally, and it's the perfect way to build your aerobic base.

If you're not a cardio lover, there's so much more you can do.

Agility ladders, cones, hurdles, and skipping ropes give you the basis for some really fun home-built assault courses that train your cardio systems alongside coordination, timing, sequencing, spatial mapping, and reactivity. The nature of these sessions also means you're training changes in direction, acceleration, and deceleration, which is fantastic from an injury prevention perspective, as it helps you better manage how force is absorbed and distributed throughout the body.

Ultimately, the best kind of cardio is the kind you enjoy. There are so many ways to make it fun, and the best way to do that is to start thinking of it as play, not as a chore.

Tip 6: Train Your Brain, Not Just Your Body

Physical training doesn't just make you stronger. It trains your brain, too.

When you exercise, your brain releases a protein called BDNF (brain-derived neurotrophic factor), which promotes the growth of new neurons and strengthens connections between existing ones. Harvard psychiatrist Dr John Ratey calls this "Miracle-Gro for the brain." His book "Spark" details how students who exercised before class performed measurably better in attention, memory, and processing speed.

For musicians, that same mechanism is at play every time you train. You're not just training your body. You're fertilising the brain, too.

In the last tip, I mentioned how choosing smarter cardio formats makes your training more fun and more efficient. But there's a deeper reason I programme

this way with my clients, and it's one that's really important to me personally as somebody with a history of brain injury.

Those same drills that make your cardio sessions more engaging are also developing your coordination, balance, quickness, agility, and mind-body connection. And in doing so, they're creating new neural connections (as well as strengthening existing ones) in your brain.

Your playing already does this to a degree. Every time you learn a new piece or nail a tricky passage, your brain is building and reinforcing neural pathways. A 2019 study at Ruhr-Universität Bochum found that professional drummers had structurally distinct brains compared to non-musicians. They had thicker fibres in the corpus callosum (the bridge that connects the left and right sides of your brain), allowing faster communication between hemispheres, which means smoother coordination, quicker reactions, and better integration between the analytical and creative sides of playing.

Here are three more ways that training your brain will benefit you beyond just your instrument:

1. The coordination, balance, spatial awareness, and agility benefits transfer into your day-to-day life. They will make your life better almost immediately. It's a funny thing to describe. You're used to moving in the way you're used to, and there may be nothing inherently "wrong" with that, but if you woke up quicker on your feet and more agile in space, you'd feel quite a deep appreciation for it. I guess you don't know what you don't know.
2. It protects your future self. Developing coordination, balance, spatial awareness, and agility becomes increasingly important as you age. You have two main kinds of muscle fibres, fast-twitch and slow-twitch, and if you don't actively train the fast-twitch fibres, your body gradually "decommissions" them over time in a bid to become more efficient. This is an issue because these fibres are responsible for speed and reactivity. That's why older people struggle to react quickly. The fibres no longer do that job, and so they lose the capacity to move well. This is the perfect example of the body and brain being deeply intertwined.

3. It physically grows your brain. A 2011 study at the University of Pittsburgh found that one year of moderate aerobic exercise increased hippocampal volume by two per cent, effectively reversing age-related shrinkage by one to two years. For us as musicians, the hippocampus is the engine behind skill acquisition, pattern recognition, and the recall of songs we've memorised, and so training it is integral to our success.

Stimulating new neural connections also protects you against neurodegenerative disease.

Neurodegenerative disease is one of the fastest-growing causes of death worldwide, with Alzheimer's cases expected to triple by mid-century and Parkinson's cases projected to more than double by 2040, according to current projections.

By actively developing your brain health through skill acquisition, you're also increasing your "brain reserve", which allows it to withstand more damage before symptoms of neurodegeneration appear. Both cardio and resistance training are powerful tools here.

Most people don't realise they even have a brain, and when the trend is that the disease is ageing down whilst the population is ageing up, you simply can't afford not to do this work.

Chapter 2: How to Move

> *"Where you think it is, it ain't."* **— Ida Rolf**

Ida Rolf was a biochemist from Columbia University who created an entirely new field of manual therapy. She called it Rolfing—deep tissue manipulation designed to realign the body's connective tissue with gravity.

She started practising yoga in the 1930s, long before it was mainstream in the West, and began working with people's bodies hands-on. What she kept finding with her patients was that the body's structure wasn't fixed. It was constantly adapting and reshaping itself around whatever positions and forces it was given.

If you hold a posture for years, your body will remodel around it.

As a result of this constant remodelling, the place where something hurts is rarely where the problem lies.

This can be confusing because pain relating to playing can often be two or three degrees removed from the root cause. It requires a bit of detective work to find it.

If you've not got a history of physical training to complement and "undo" the effects of playing your instrument, your body will have spent years remodelling itself and making subtle changes to your physiology that you may or may not have noticed. Your job, and duty to yourself, is to start unwinding the thread to see what's there. This is the first step. Building strength, resilience, and durability all come downstream of moving well.

But you can't fix what you can't see.

This chapter is about learning to read the map your body has drawn, figuring out which way you're facing, and taking the first step in the right direction.

Let's get cracking.

Tip 7: Your Posture is a Trail of Breadcrumbs, Not a Position to Hold

Posture is dynamic. Not static.

Most people think of posture as a position. Stand up straight. Head tall. Shoulders back and down. Chest out. And they spend their whole lives trying to hold themselves in place, like a mannequin in a shop window.

It doesn't work, and if anything, it will do you more harm than good if you try to hold yourself in this way.

Four things influence posture:

1. What you've been doing
2. How you've been doing it
3. What you haven't been doing
4. Your baseline nervous system tension

It's a trail of breadcrumbs left behind by your habits, your training history, your stress levels, and the positions you hold.

Many people live in predictable patterns of muscular imbalance, in which certain muscles become chronically tight while their opposites become chronically weak. As musicians, that carries over into our instruments. A drummer who spends four hours a night hunched over a kit may end up with spine and pelvis issues. A violinist whose left arm is permanently elevated will develop a different set of compensations. Ballet dancers deal with the same thing. Years of turnout and pointe work remodel the hips, ankles, and feet, which is why every major dance company now embeds physiotherapy and S&C (strength and conditioning) into their training.

The same mechanism works in reverse.

If you train with balance, your body will reorganise itself over time. You can

lengthen shortened muscles and strengthen weakened muscles. By doing this, your nervous system can recalibrate the baseline amount of "signal" it sends to the muscles, which in turn improves your posture.

The thing we need to consider as musicians is that, when we talk about posture, we normally think of it in isolation of our instrument.

The reality is that we spend more hours away from our instruments than we do with them (regardless of how much you practise), so you need to start viewing your posture as the sum of everything you do in your day. That normally means that, to "fix" your posture, you'll see more progress by looking at the patterns of your day across an entire 24-hour window, then addressing those patterns with specific gym-based training. The instrument-specific impact on your posture can then be corrected with the right recovery protocols after your practice session or gig. If you're undoing that work through your cool down, it can't carry over into your static postural position.

You need to think more broadly if you want to see lasting change. And that means looking at the entire picture, not just the snapshot of your habits with your instrument.

Tip 8: Balance Your Body Front to Back

There is one major postural commonality that we, and most of the population, share.

And that is rounded shoulders.

Your instrument is in front of you. Your music stand is in front of you. Your screen is in front of you. Everything you do pulls you forward, and over time, the front of your body tightens while your back weakens. We call this "internal rotation", and that rotation can lead to more than just bad posture. It can cause nerve and artery-related issues that travel all the way down into your arms and hands. For a musician, that can be career-threatening (and in some extreme cases, potentially life-threatening).

The fix is to train front to back.

On front-focused days, you stretch and mobilise the front of the body with chest openers, hip flexor stretches, thoracic extensions, rope flow, and light

loading through lengthened positions. On back-focused days, you strengthen the back with rows, face pulls, glute bridges, hamstring work, rear delt exercises, scapular stability, and maybe a few kettlebell swings for good measure.

Basically, whatever's tight, open it up. And whatever's weak, develop it.

Over weeks and months, this balance encourages a more open, upright posture, not because you're consciously holding yourself there, but because the structures underneath have changed. Your chest isn't pulling your shoulders forward anymore, and your upper back has the strength to hold them where they belong.

As we said in Tip 7, your posture holds the breadcrumbs of your past. And if your past is training like this, your future self will thank you.

Tip 9: Train One Side at a Time

A bilateral exercise is one in which both sides of the body work together (e.g., a barbell squat, a two-handed press, or a conventional deadlift). A unilateral exercise is one in which each side works independently (e.g., a split squat, a half-kneeling overhead press, or a single-leg Romanian deadlift).

Here are four reasons unilateral trumps bilateral as a musician:

1. When both sides work together, your strong side compensates for the weak one. But when you load each side independently, you'll likely find asymmetries hiding in the woodwork that would otherwise go unnoticed.
2. As musicians, we hold asymmetric positions for hours at a time. If you don't effectively cool down after performing, this creates imbalances that compound over months and years. These imbalances then change the way you move at a foundational level, setting you up for dysfunction in the long run, or worse, injury. So, it makes sense to train in the same way you use your body when you're performing.
3. Because you're only challenging half of your body, you can also use half the weight. That means half the load on your spine, half the stress on your joints, and a significantly lower risk of injury while still delivering

the same challenge to the working limb. For us as musicians, that's a major advantage. You get the adaptation without the systemic cost.

4. Life doesn't happen bilaterally. How do you walk? Unilaterally. How do you run? Unilaterally. How do you climb stairs? Unilaterally. So, if life happens predominantly unilaterally, why do we train bilaterally? Life (and performance) requires your body to work as a single integrated unit, so it pays to train it that way from the ground up.

Research published in the Journal of Strength and Conditioning Research has consistently shown what's known as the "bilateral deficit", which essentially means that the amount you can do with a single limb exceeds the amount of challenge when both work together. Practically, that means you can train harder with less systemic load on the body.

For musicians who need to train effectively without accumulating excessive systemic fatigue, that's a huge advantage.

Tip 10: Train in All Three Planes of Motion

There are three ways you can move:

1. Forward and back (aka sagittal).
2. Side to side (aka frontal).
3. Rotation (aka transverse).

Most training is biased toward forward and backward movements. Squats, lunges, deadlifts, presses, rows... Almost everything in a standard programme happens in a straight line. And that's fine, up to a point. But life (and performance) doesn't happen in a straight line.

Rotation is the most overlooked plane of motion in the gym, and it's arguably the most important one, because it underpins all locomotion. Every step you take (every move you make) involves a counter-rotation between your shoulders and hips. Yes, walking involves moving forward, but without the rotational aspect and the side-to-side stability, you wouldn't be going

anywhere fast.

For musicians, the imbalance is even more pronounced.

If the muscles that rotate your trunk, stabilise your spine, and coordinate your upper and lower body don't get trained, your body tries to stabilise through other structures, such as your lower back. This is a really common issue I see with my clients, and it comes down to the simple fact that their existing training accounts for only a small percentage of what their bodies actually need. That means imbalances get baked into their physiology, leaving them backed into a corner, staring injury in the face.

The fix is simple.

Add lateral and rotational elements to your training.

You can do this with dedicated side-to-side and rotational work, or you could add a variation to a more traditional exercise.

A goblet split squat with a rotation over the stance leg at the bottom of the range. An overhead press from a half-kneeling position to challenge your anti-rotation strength. A cable chop. An anti-rotation hold. A horizontal press from a hollow body position. Rope flow. Or single-leg skipping.

There are so many ways to do it.

If you train in all three planes, you will build a body that's resilient, durable, and prepared for whatever your career throws at it.

Chapter 3: Planning Your Training

> *"The goal is to keep the goal the goal."* **— Dan John**

Dan John is one of America's most respected strength coaches, a nationally competitive discus thrower and the author of some of the most widely read books in the strength and conditioning world.

In the early eighties, he was teaching religious studies at a Catholic high school in Utah and spending his evenings coaching discus throwers and Division I athletes.

Throughout his career, he's found that athletes make the same mistake time and time again.

They'd start training for something specific, like a competition or a new season. But within weeks, the original goal would be buried underneath the allure of personal bests and the dopamine hit of a new programme.

Someone training for durability would end up chasing a deadlift number that had nothing to do with what they really needed. Someone preparing for a competition season would exhaust themselves in the off-season because the training felt more productive than the recovery. The goal got lost.

In a culture addicted to intensity and novelty, his entire body of work is a case for the opposite.

Boring consistency, and doing what matters.

We have a lot to learn from people like Dan John. For musicians, the goal should always be the same. Stay available to work. Prevent injury. Build durability and robustness.

That's it.

Everything else in your training comes downstream. This chapter is about building a plan to keep it that way, without shiny object syndrome pulling you off course.

Let's get into it.

Tip 11: Stop Training Like a Bodybuilder

Most modern gym programming is rooted in bodybuilding science.

Bodybuilders train with an emphasis on individual muscles, using a training method commonly known as "Bro Splits". It means training chest one day, back the next, legs the day after, arms the day after that, and so on. It's designed around the idea that overloading a single muscle from multiple angles in a single session is the most effective way to gain muscle.

There are other ways to split your training, too. Push/pull/legs is common. So is an upper-body/lower-body split. These methods were designed to isolate muscle groups and maximise hypertrophy by hammering one area hard and then giving it a week to recover. That approach has its place.

But, as a musician, not so much for you.

Most of these programmes assume you already have a base level of conditioning. They're designed for people with years of gym experience. If you're a musician walking into the gym for the first time, your training age is effectively zero. You might have twenty years of professional experience on your instrument, but your body has never been trained to handle load in this way. Starting with a bodybuilding split in that situation isn't just ineffective. It's a recipe for injury.

When you train a single body part intensely, you can get DOMS that can last two to three days. And if you're performing with DOMS, you'll make micro-adjustments to your technique without realising it. As a result, you'll over-recruit smaller muscles to compensate, leaving you open to injury, not from the training itself, but from the compensations the training caused.

There are logistical reasons why the bodybuilding approach doesn't work for musicians, too.

It requires you to be in the gym on particular days without fail.

If you miss a day, you miss training that body part, and you end up training imbalances into your body. That can cause real damage over time. As musicians, our diaries change on a whim. We are often travelling for one-off gigs, touring, or knuckling down for a long day of back-to-back teaching. These last-minute changes to our diary mean we need a training split that can flex with us, so we are always training in a balanced way, with a plan that supports us and our crazy diaries.

That's why I am a big advocate of the full-body training split.

It doesn't mean training your entire body every session. Nobody has time for that, and it's not effective either. Full-body means training each muscle group only once per session, distributing the work across the body so no single area is overworked.

It works, too...

It's how I train myself. It's how I train my clients. And it's backed by science.

Brad Schoenfeld, one of the most published hypertrophy researchers in the world, showed in a 2016 meta-analysis in Sports Medicine that training each muscle group across multiple sessions per week (rather than hammering it once) produced superior muscle growth, even when total weekly volume was identical.

Tip 12: Progress Beyond Just Adding Weight

When most people think about making their training harder, they think about adding weight.

But that's not the only road you can take.

Progressive overload (the principle of making your training harder over time so your body continues to adapt) can take many forms. You could do more reps at the same weight. Less rest between sets. Less stability (moving from a bench to a Swiss ball, from two feet to one). More range of motion. Harder exercise variations. Slower tempo.

Each variable creates a different demand. Different demands drive different adaptations. And those adaptations show up differently in your body. This,

for me, is where training gets fun. Finding the right road forward at the right time is the key to your progression, and the right answer will never be the same twice.

You should never just repeat the same old thing.

If you've been doing three sets of twelve with the same weight for months and you've plateaued, this is the reason why. Your body is incredibly intelligent. But it's also lazy, and it will find ways to make the same training stimulus as efficient as possible if it can anticipate what you're going to ask it to do. That means you need to keep it guessing by constantly changing the inputs you give it, so it can't get used to any single training method.

The road you take first is highly individual, too.

It depends on your goals, your body, your injury history, and where you are in your training at this moment in time. Someone with reduced mobility might benefit most from range-of-motion work. Someone with a weak base might need more volume. Someone recovering from an injury might progress through stability before they introduce more weight. That's one of the real benefits of working with a trainer... They know which lever to pull and when. And, crucially, they also know which ones to leave alone.

If you're looking for a clue on where best to start, the best rule of thumb is that you should be doing less of the stuff you like and more of the stuff you don't. But only within reason.

Tip 13: Build a Training Toolbox, Not Just a Training Plan

Most people treat training as all-or-nothing.

Either they join a gym and go all-in, or they do nothing.

When life gets in the way (which, let's be honest, it does, constantly), they end up doing nothing more often than they'd like. The problem in this situation is less about them not sticking to the plan and more about the narrative they've sown in their minds that they just can't fit training into their lives, and they're just "not that kind of person".

We've all looked at those people who somehow seem to always have time, and the difference between them and you is that they don't just have a single

plan. They have multiple backups in the form of different types of training sessions. And they know how to adapt their plan with the tools they have to fit the constantly changing demands of their lives.

This isn't a novel concept in elite sport, either. LeBron James, who we mentioned at the beginning of this book, doesn't have a rigid programme. He uses a system of options that his team selects each day, based on how well he's recovered, the schedule, and what his body needs.

The principle is the same whether you're spending millions or nothing at all.

And so, you should also have a range of session types at your disposal for when life throws unexpected curveballs.

You need your full resistance sessions that progressively overload over time and undulate throughout the year. You need metabolic resistance sessions where you combine strength and conditioning into a single session with minimal rest. Steady-state cardio. Agility and circuit sessions. Mobility work. Movement snacks. Then, depending on how well recovered you are, how much time you have, and how you're feeling mentally, you can chop and change your plan to suit your life.

So, how can you use these different sessions for yourself?

- If you have the time and the energy, do the full session.
- If you have the energy but not the time (and you have the runway to recover), pick the metabolic resistance session.
- If you have the time but not the energy, go for a half session and swap out the second half for accessory work or mobility work.
- If you're feeling mentally fried, hit some steady-state cardio.
- If you're travelling and all you've got is your hotel room, do a bodyweight circuit or plan ahead and pack a TRX and some bands.

The goal is to create an environment where you can't fail.

Tip 14: Structure Your Training Year Like an Athlete

Let's explore what an athlete's training looks like.

They have on-seasons and off-seasons, and the way they train shifts dramatically between the two.

Granted, this may not be the case for you as a musician, but to understand how your training works on a higher level, you first need to understand how it works in the world of sport.

Periodisation is the fancy term to explain how you break up and change the focus of your training across the year, and it's one of the most fundamental principles in sports science. It's not just sport, either. The military plans training in cycles. The corporate world runs in quarters. Even the gaming industry schedules rest periods between competitive seasons. Everybody who performs at a high level has worked out that you can't just go full throttle all year round.

Depending on the sort of work you do as a musician, this will look different depending on what your diary looks like. If you predominantly tour, and you're often very busy for a few weeks or months, and then you have a clear cut-off season in the same way as a sporting athlete, your training should reflect that curve of intensity, peaking with training intensity in the off-periods from touring, and switching to maintenance mode while you're on the road so you can prioritise recovery and reduce risk of injury. If you have a full-time Broadway/West End gig, and you're always "on" from a performance point of view, you will be able to train more consistently but with a generally lower intensity to accommodate the scheduling demands of the show. And if you predominantly "job around", well, your job is the hardest. This is where your training session toolbox comes into play, but you can still plan your sessions around a single focus like growing muscle, building strength, developing power, or combining strength/mobility.

Let's break down what this might look like in a bit more detail for a touring musician:

In-season (when you're performing regularly): Here, your training should

support performance. Your recovery and energy levels should drive your decision-making. And your training focus should be on maintenance, sniffing out performance-induced imbalances, and keeping things well-oiled so your physiology doesn't become the bottleneck to you executing your job effectively. Your body doesn't distinguish between stressors, so training and performance need to be balanced carefully to prevent burnout.

Off-season (between tours, contracts, or campaigns): This is where you can really move the needle. You can move to more strength and power-focused goals, lift heavier, build new capacity, address weaknesses, and generally increase the level of risk you're willing to take on. You still need to watch your recovery, but burnout won't be as much of a risk during these periods.

If you have a gig where you're required to always be "on", you can program these goals around your work, but you have to watch your recovery. Mark Verstegen, who has trained some of the highest-performing athletes on the planet, talks about "competing to train and training to compete". This is the idea that the two should never pull against each other. That's exactly the balance we're aiming for. You can see adaptations, but you should adjust your expectations, and you will likely need a few more tools up your sleeve to ensure you manage to match the right training to the right energy levels.

To do this, you need to structure your training in blocks that serve different purposes at different times. With my clients, I plan the year from the top down over six or twelve months, then get into the weeds as each block approaches. Think of it as like a "training compass". But the plan is never set in stone. It's a living thing that should flex with life's demands. The reality is that you can't train everything at once, so you need to prioritise the things that are most important at the time.

These priorities will constantly change depending on the way your work diary pans out as the year unfolds, which is why it's so important to work with a coach who knows how to juggle all the elements effectively and intelligently.

Chapter 4: In the Session

> *"Strength is a skill."* **— Pavel Tsatsouline**

Pavel Tsatsouline trained Soviet Special Forces before bringing kettlebell training to the United States in the late nineties, where he became the man most responsible for introducing it to the Western world.

If you were going to pick one person you'd expect to advocate for training harder, longer, and with more intensity, it would be him. Except, he said the opposite.

Don't train to failure. Don't chase exhaustion. Don't measure a session by how destroyed you feel afterwards. Measure it by how much better you leave than when you arrived.

He compared strength training to practising an instrument (so that's pretty convenient for us!).

You wouldn't sit down at a piano and hammer through scales at maximum speed until your hands gave out. You'd work at the right intensity, with the right focus, and stop before the quality dropped. Then you'd come back tomorrow and do it again.

You've been doing this your whole career. You just haven't applied it to your body yet.

This chapter gets into the practical stuff you can do to change that.

Tip 15: If in Doubt, Start With a Kettlebell

If you want a single tool for strength and conditioning that takes up little space and can be done in short workouts, you can't do much better than a kettlebell.

It's a fantastic tool to help you gain muscle, lose fat, improve your posterior chain power, address economy of motion, whilst improving how your body coordinates, times, and sequences itself across a large number of moves.

One of my favourites is the kettlebell swing.

This is a power-endurance version of a deadlift that challenges core, lower back, hamstrings, glutes, shoulders, forearms, and grip in a single exercise. But it's technical. You need the right method with the right cues at the right time. And I'd really advise against using YouTube to help you. There are a hundred dodgy videos for every good one. And when you're just starting out, there's no way for you to tell. It's a bit like cooking. Some dishes you can wing quite easily, others you really need the recipe. Kettlebells are the latter. But if you take the time to get it right, it's a tool for life.

Kettlebell lifts fall into two categories:

1. **Grinds:** These are slow, controlled lifts such as the goblet squat, press, row, deadlift, and Turkish Get Up.
2. **Ballistics:** These are explosive movements such as the swing, the clean, and the snatch.

If you combine these with different work-to-rest ratios, you can target different energy systems, making them an amazing tool for a form of training called metabolic resistance training that combines strength and conditioning in a single session with minimal equipment (a single bell), in twenty to thirty minutes.

If you have no injuries and you're physically in one piece (even if you're relatively detrained or have never trained before), then it's a great starting point. But, like everything, there's a consideration. Kettlebell work can be very expensive on the nervous system. You need the recovery time afterwards, as well as the right nutrition to support it. Get these on point, and you've got

a great all-around plan to get you off the blocks.

There's another reason I gravitate towards kettlebells over things like barbells with my musician clients.

Barbells are fantastic tools for the right person at the right time, but they're also very high risk in terms of injury. If you don't have a clear "off-season" in your diary and you need to be available to perform at any time, you need your training to support that fact. Barbell training involves moving more weight for fewer reps. Kettlebells involve moving less weight for more reps.

More weight = more injury risk.

Less weight = less injury risk.

If you're new to training, then kettlebells are a great starting point.

As you learn what your body can and can't do a little better, you'll start to realise your body has quirks and imbalances. Everybody has them, including you (if you think you don't, it's only because you haven't realised what they are yet). Kettlebells are like the Swiss Army Knife of the training world. They can do many jobs, but only to a point. And so, once you start identifying your quirks and imbalances, you'll realise you need the right tool to address them, which leads me to...

Tip 16: Use the Right Tool for the Job

Kettlebells are great, but they will only take you so far.

Once you've been training for a while, you'll realise you need more specific tools to help you address weaknesses and imbalances in your body. This is particularly nuanced for musicians, and I would avoid taking advice from generic trainers on social media or YouTube. So, here's a breakdown of how you can use different tools for different areas of your training.

Dumbbells are more stable than kettlebells, which means you can lift heavier without needing to stabilise as much. That makes them great for building raw strength in specific areas. I particularly like them for lower-body exercises. You can also microload with dumbbells in 1-2kg increments, making progression more granular when you've outgrown one weight but aren't quite ready for the jump with something like a kettlebell (which generally go up in

4kg increments). That kind of precision can be helpful when you're trying to track development and progressively overload from session to session.

Cable machines give constant tension through the full range of motion. This is something free weights can't do, because gravity only pulls in one direction. That makes them brilliant for rehab work, for training rotational patterns, and for targeting muscles at angles you can't easily reach with free weights.

Trap bars let you deadlift heavy with less spinal load than barbells, because the handles sit beside you rather than in front or behind. This shifts the centre of gravity and takes pressure off the lower back.

Landmine attachments turn a standard barbell into one of the most versatile tools going for presses, rows, and rotational movements, all from a single anchor point.

TRX suspension trainers use your bodyweight and gravity as resistance. The key variable for training progression is the angle of your body relative to the anchor point. The instability of the straps means your stabilising muscles are recruited throughout, making it particularly effective for functional strength that translates to the physical demands of performance, with very little risk of injury. Plus, it packs down really small, and you can shove it in your luggage if you're travelling. This is an absolute winner for musicians, in my book.

Resistance bands are one of the most underrated tools in your arsenal. Because the resistance increases as the band stretches, they are excellent for training the end range of an exercise, which is often the most underworked position and where you're most prone to injury. For musicians specifically, bands are particularly useful for shoulder external rotation, scapular retraction, and wrist/forearm/ankle work. They're also highly practical because they're lightweight, portable, and easy to anchor almost anywhere. You can also use them to progress compound moves such as split squats, rows, and presses if you're on tour and don't have reliable access to decent hotel gyms. I've been sent videos by my clients proving this point, including one from a client on tour in New Zealand, who sent me his training videos from his hired campervan in the middle of the wilderness, and in fields surrounded by sheep in the depths of the Scottish highlands.

Bodyweight training is often dismissed as the beginner's option, but it's a

great tool for developing proprioception, coordination, and body awareness in ways an external load doesn't always replicate. If your bodyweight squat is compromised, adding a barbell to it doesn't fix the problem... It just hides it until it becomes an injury down the line. You can also make it as advanced as you like. Pull-ups are hard. Muscle-ups are even harder. Then you've got things like front levers, human flags, skater squats, and pistol squats that require unreal amounts of strength.

At the end of the day, the best training doesn't use the same tool for every job, and there is no tool that is better than others. There's only the right tool at the right time. The trick is to know what that tool is and when to use it. Hint: This will constantly change.

You may have noticed that I haven't mentioned anything to do with resistance machines like leg curls, chest presses, shoulder presses, etc. The reality is that I tend to avoid them. The only time they would be useful for you is if you are working with a bodybuilding goal, if you have been quite badly injured and you need to target something very specific, or if you are in your finer years and could benefit from additional safety, stability, and a bit of psychological confidence. Sometimes I use them to help clients develop lat strength for pull-ups, but that's an exception to the rule.

Let's take a leg curl, for example.

With a machine, a leg curl will isolate your hamstrings, but it doesn't teach your nervous system how to use your hamstrings in relation to the rest of your body. If you were to swap this out for something like a slide pad hamstring curl, you can progress it through several variations into something that's far more useful for what you do as a musician. You can target your core, balance, and coordination with a single move. The same idea applies everywhere. A TRX bicep curl beats a machine curl because it requires you to stabilise your entire body. A half-kneeling overhead press beats a shoulder press machine as it teaches you to engage your core and hips as you move overhead.

At the end of the day, your body doesn't work in isolation, so you shouldn't train it that way in the gym. And by choosing exercises that challenge the whole system rather than just a single muscle, you'll be building resilience and durability, which are the two key attributes you need to survive a career

in music.

Tip 17: You Don't Need a Gym (But Don't Write Them Off)

Gyms are great. But you don't need one.

Gyms give you more tools and variation than you'll ever have at home.

But the barrier most people face is the commute, the time, and the all-or-nothing thinking when it comes to maintaining a consistent habit. Getting to a gym takes twenty minutes each way. That's forty minutes of your day gone before you've touched a weight. At home, the time requirement is cut in half. That gives you enough time to get your training done with time spare to grab a shower and make a cup of tea. Your gear is always in sight. Your kids can join in. The margins of the day suddenly become usable. And in reality, it's those margins where most of your training will happen.

Your home setup doesn't need to be elaborate, either. I train at the gym, but I also use kettlebells, resistance bands with wall anchors, a TRX, slide pads, and a pull-up bar at home when I'm pressed for time. If you've got a spare corner in the garage or the living room, you've got enough space. And it will set you back no more than a couple of hundred quid, and last for years.

Granted, you have to train in a slightly different way. You can't just pick up the next dumbbell off the rack or chuck a bit more weight on the bar, but depending on the tools you use, you can progress by manipulating different variables besides just the weight, including:

1. Tempo
2. Stability
3. Complexity
4. Grip variations
5. Plane of motion
6. Range of motion
7. Unilateral vs bilateral
8. Volume (sets and reps)
9. Load position (front-loaded, overhead, offset, contralateral, ipsilateral)

10. Time under tension (cluster sets, pulse reps, paused reps, half reps, negatives, different types of isometrics, etc.)

If there are words here that go over your head, don't stress about it. If and when you get to the point of thinking imaginatively about how to progress your training at home, you can come back and check the list above again and use it as a hub for your own research. Or, you could just reach out to me for help.

Progressive overload doesn't just disappear because you don't have a wall of dumbbells in front of you. You can still achieve progress regardless of where you're at and where you want to go. If anything, you'll become more physically resilient training at home because you have to think harder about what you're doing and how to progress. Think of it like being a vegetarian. Vegetarians tend to have better overall nutrition than meat eaters because they have to think more carefully about how to construct a meal. A meat eater, on the other hand, could get away with chucking a piece of chicken in the oven and eating it with a potato for days on end. Who, in the end, will have the better diet? The person who doesn't have to think? Or the person who does?

Back to the task at hand...

Yes, you will become incredibly well-rounded if you train at home and adopt a methodical approach, but don't write gyms off entirely.

There are things a well-equipped gym gives you that home training can't. Cable stacks, heavy dumbbells, variety you'd never be able to replicate, and therefore an unlimited number of progression options.

The point is, if you can get to one, use it. If you can't, you can (and should) train at home.

Tip 18: Aim for 7 Out of 10

How hard you train matters.

But knowing how hard you're training matters more.

The aim of your training is never to completely smoke yourself. You don't want to be hobbling for days, and you don't want to make it an experience

that you dread. So, I always tell my clients that, on a macro level, we aim for a difficulty level across the entire session of around 7 out of 10.

On a micro level, how you monitor your intensity will depend on the type of exercise you're doing. With my clients, we use two methods with two different scales. Getting your head around this is really important because, otherwise, you won't be able to progressively overload and see continuing adaptation and development over time:

1. **RPE (Rate of Perceived Exertion):** I like to use this for bodyweight exercises, band exercises, and cardio work. In general, aim for 7/10 across every exercise and, as I said above, the entire session as a whole. Don't get me wrong, 7/10 should feel hard. It's not an excuse to go easy on yourself. But, at the same time, it shouldn't destroy you.
2. **RiR (Reps in Reserve):** This means "how many reps you've got left in the tank at the end of each set". I use this when using an external weight. In general, the aim is to land somewhere around 2 reps shy of technical failure from set to set. If it's easier, think of it like this... Say you want to do 10 reps, then you would pick a weight that you feel you can do 12 reps with, but you're only going to perform 10.

These two scales take time to dial in as a skill in their own right.

You need to learn to notice the subtle signs (not just the obvious ones) so you can gauge how far you are from true technical failure. At the end of the day, the only way to become comfortable with that is to practise it over and over again, but once you get it and it becomes second nature, it can quickly become the single best tool you have for keeping your training sustainable.

Tip 19: Never Train To Failure

There's a school of thought on social media that says you must train to failure to see adaptations.

As a musician, you need to be wary of this advice. Training to failure means you will, by definition, see technical form breakdown. It's not possible to fail

a rep without it. The issue for you as a musician is that purposefully taking an exercise to that point puts the risk of injury into the stratosphere. If you're training for the sake of training, maybe that's a risk you're willing to take, although I can't imagine why you'd want to. But if you're training to support your performance, your availability to perform injury-free takes precedence over everything else. Anything that jeopardises this fact should be avoided at all costs. Trust me on this. I nearly learned the hard way by semi-dislocating my shoulder when the supporting muscles gave way. I got away with it by the skin of my teeth. But I've never forgotten the day, and it serves as a reminder to be sensible.

Don't worry if you are concerned about leaving "gains" on the table, either. A 2024 meta-analysis in Sports Medicine found that stopping 1-2 reps short of failure produces comparable strength gains, with far less fatigue and injury risk.

So, in light of that, there really is no need to train to mechanical failure.

Train smart, kids.

Tip 20: Time Your Rest (And Use It Wisely)

Always time your rest between sets. It's there for a reason.

Depending on the current goal of your training, you'll need different amounts of rest for the amount of work you're doing. A lot of people guess their rest time, but to see meaningful progression, you need to use a timer and treat it as a variable in the same way you do with the amount of weight you're lifting.

You wouldn't guess the weight you lift. So why guess the rest time?

The rest period you set for yourself acts as a mechanical reset. When you lift, sprint, jump, or press with intensity, you're using your highest-power energy system, the phosphagen system. That system runs on stored ATP (adenosine triphosphate), the primary energy currency your body uses at the cellular level. Your body only carries a small amount in its stores, and so it depletes quickly, in around 10 seconds. But it takes much more to replenish. If you rush the next set before that recovery has happened, you physically cannot reproduce

the same force output because you're not carrying enough of the ingredients you need to create the energy to do "the thing". It's a physical impossibility, and no amount of "go hard" mindset can overcome it.

In reality, if your rest is too short, one of two things occurs:

1. You will need to drop the load.
2. You will need to reduce the reps.

If that happens, you can no longer accurately measure your development from session to session, and your ability to progressively overload and see the adaptations you're training for will diminish. Without adequate recovery, your nervous system shifts from "produce force" to "manage fatigue." That's a completely different training effect, albeit one you might sometimes want to induce.

You might be thinking that all this rest will leave you with less time for doing actual exercise. And to that, I would say this..

There are many ways you can do it. And many that I see try to cram too much into any given session. On the whole, with my clients and me, I have found that the optimal balance is to structure your workouts in a circuit format. This means, after your warm-up, doing two/three exercises back-to-back (within a structured "split", and with a focus on balanced movement patterns and planes of motion), then taking a two-minute rest. We complete two circuits like this, doing two to three sets of each. Then, if time allows, we will do a structured conditioning finisher.

This gives you a great workout with proper rest that you can also use productively, rather than just scrolling Instagram or taking selfies as "proof of exercise".

Some of my clients use this time to do cross-body coordination drills (like tennis-ball cross-body catches). Others do balance drills (balance pad work) or proprioception work (slow, controlled movements with eyes closed). You might choose to decompress your spine with a few seconds of rope flow. Or you could just grab a drink and take a minute for yourself. Over the course of a year, those "wasted" minutes between sets add up to more than 24 hours of

potential training time.

Whatever it is you choose to do with your rest, make sure you time it accurately with the timer on your phone. If you're using the Performance Conditioning app, your rest time is pre-programmed and will automatically commence when you log the final set of each circuit.

Chapter 5: Staying Injury-Free

> *"Biology does not give you infinite capacity."* **— Stuart McGill**

Stuart McGill is a spine biomechanist who spent thirty years at the University of Waterloo studying how people develop bad backs.

You know those displays in IKEA where a machine bends a chair back and forth behind a glass box? McGill did a similar thing with spines. He'd put them through thousands of flexion cycles (the same bending motion, over and over), at forces well within the so-called safe range, to see if, and at what point, they would break.

What he found was that the tissue doesn't fail dramatically. It fails slowly, layer by layer, until the structure gives way. It turns out that the spine has a tolerance budget, a little like the tread on a tyre. And every revolution of the wheel, every movement from the vertebral column, uses a small percentage of it.

For musicians, the shift for you is understanding that injuries don't happen in a single moment. They build over time. But there are steps you can take to prevent this buildup. If you sit the same way, move the same way, repeat the same patterns, and never do the work to offset the cost, you'll eventually spend through your budget and acquire the inevitable injuries that come with what we do.

In this chapter, you will acquire the skills to offset the physiological cost of repetitive movements so you can prevent injury and ultimately become more durable as a musician, which is the number one trait you will need as the music

industry doubles down on the live and touring sector over the next ten years or so.

Let's get into it.

Tip 21: Say It Out Loud

It sounds simple, but if you have a niggle as a result of training or performing, say it out loud.

I lived with a chronic shoulder injury for three and a half years, which got so bad that I was within months of having to put my sticks down for an extended period of time. Luckily for me, that realisation came around a month before COVID hit, so I could then take eighteen months out to figure out what the issue was without having to walk away from the drums. At its worst, I was spending around £850 a month on chiropractic work, massage, and physio, just to keep me playing into the next week.

I never told another musician because I worried that people might get wind of it and it would somehow affect who called me for work. It's not just me either... In my 1-1 training practice, I have yet to meet an injured musician who feels able to acknowledge their injury to their peers. In fact, I am normally their first point of contact for acknowledging the problem.

And that's precisely my point... You need to acknowledge the problem.

If you're worried about what people will think, then there is no need. The people you work with book you for a reason, and by talking to them, you may even find they open up and tell you their version of the same story. Injury amongst musicians is terrifyingly common. Somewhere between seventy and ninety-three per cent (according to varying reports) of musicians have experienced a physical injury in their career. It just doesn't feel common because nobody talks about it.

Let's be that change. The culture of "push through" and "keep quiet and carry on" has kept people suffering alone for long enough.

Tip 22: Stop Chasing Soreness

There's a culture in fitness that glorifies soreness.

"No pain, no gain" and all that.

It makes sense, in some ways... Soreness feels like a tangible measure of something that can otherwise feel quite intangible day to day. Strength gains, power output, speed, fat loss, and agility gains all take time, and the path is anything but linear. It's only once months have passed and you're able to look back at the direction your efforts are trending with the benefit of hindsight that the results actually feel tangible.

As a result, DOMS can feel like a really good indication of effort, as if the amount of pain is a signal that you're going to reach your goals quicker.

But this is wrong.

People think soreness is a sign of muscle damage, which, in turn, means muscle growth. But the reality is that it can only tell you about novelty and that you've done something your body isn't used to. You can have severe DOMS with minimal structural damage, and significant damage with barely any soreness. For example, you can run a marathon or take part in a long-distance cycling race and experience extensive muscle soreness. These activities are endurance-based aerobic activities and aren't generally associated with hypertrophy (muscle growth). On the flip side, if you know what you're doing, it's possible to train with a specific goal to build muscle and experience very little soreness.

This point is important for musicians.

The muscles we use for playing our instruments are, from an evolutionary perspective, only designed for periodic bouts of fine-motor tasks or to serve as stabilising muscles that support larger structures. If you have sore muscles after training, it can create micro-adjustments in your technique. Changes in your technique cause those smaller muscles to adjust their balance and over-recruit in other areas. By changing this balance, you're opening yourself up to injury, and you may not even be aware that it's happening until it's too late. Because your body compensates automatically, by the time you feel the secondary problem (the sore wrist, the tight neck, the twinge in your lower back), the root cause is three steps removed from where you're looking.

Metaphorically, that's like being stuck in the woods at dusk without a map.

This is one of the key reasons bodybuilding splits don't work for performers. They're designed to create localised damage, and for you as a musician, that damage has a cost that extends far beyond the gym.

Tip 23: Know Your Body's Weak Points (And Train Them First)

I know, it's tempting to make a direct line for the compound lifts (like deadlifts and squats), the heavy weights, and the exercises that you feel are going to give you that immediate dopamine hit.

But the reality is, if you're ignoring a niggle or avoiding a known weakness, you're setting yourself up for slower progress in the long run at best, and an injury at worst. Your body is only as resilient as its most vulnerable structure, and your training should prioritise those structures first, not last.

Gray Cook, the physiotherapist who created the Functional Movement Screen (FMS), an industry-standard measure of someone's physical integrity, has a famous rule. "Don't add strength to dysfunction." His system is built on the premise that you should identify your weakest links before you start loading them. The data from over two decades of FMS research consistently show that athletes with unaddressed asymmetries are significantly more likely to sustain an injury. The same logic applies to you. I do these screenings with all of my clients, and we work on them progressively over time.

Whatever your weaknesses are, you should give them the most attention. If you're not sure what's weak, you should seek the help of a coach like me or anybody else that you trust to help you find those areas, as you're guaranteed to have them. In your workouts, train them first because when you stack them at the end of your session, you're training those weaknesses in a fatigued state, which reduces the quality of the movement.

Here's a breakdown of the most common areas of injury, including the shoulders, hands, ankles, and hips:

The shoulder is the most mobile joint in the body, as it uses an intricate group of muscles to "float" the scapula over the back of your ribcage. This

makes it very vulnerable. Most of my clients need rotator cuff work. This group of muscles keeps your arm centred in the socket in your shoulder, and for musicians, it's required to stabilise for hours at a time. If it's weak or undertrained, the bigger muscles compensate, which can have a huge impact on your ability to play your instrument. It's also important for preventing the forward roll of the shoulders into that hunched position most of us carry. To address it, a balanced programme of horizontal and vertical pushes and pulls in tandem with more specific accessory work can really help.

Obviously, as musicians, our hands are key, but they're often the least trained part of the body. I use the Powerball gyroscopic strength training device to train my hands and fingers in tandem with a focus on grip strength in my wider training. Everything from kettlebell swings to deadhangs to modified, oversized TRX grips will all help.

Hip mobility is hugely important not just for what we do, but also for our longevity. Here, a combination of strength work and mobility work is key. Hip 90/90 drills, half-kneeling pelvic tucks, leg abductions and lateral band walks, and glute bridges are all great.

You don't have to do all this in one session. But, when you drop it in, one exercise at a time, across all of your sessions, and then you supplement the mobility work outside of your sessions in the form of movement snacks (little exercises to do whilst you brush your teeth or wait for the kettle to boil), you're going to see the compounding effects pretty quickly.

Whatever you do, and however you decide to do it, focus on the foundations first. Get them strong. Then you can layer the rest of your training on top.

Tip 24: Give Your Tendons as Much Attention as Your Muscles

Your muscles can handle far more than your tendons can.

And that gap is where most overuse injuries live.

The role of tendons is to connect muscles to bones, absorb force, transfer energy, and stabilise joints under load. When they become overloaded, they can cause no end of issues.

Training your tendons, as with your muscles, is a balance. Too much rest is as harmful as too much load. They need the right load, and the right kind, at the right dose. They adapt much more slowly as they don't receive the same blood flow as muscles. That mismatch is where many overuse injuries come from, particularly if you do a lot of running, HYROX, or other endurance-focused, speed-centric sports without time dedicated to low-rep (6-12) strength training. I've seen events like HYROX become a breeding ground for tendon injuries. The competitive element creates pressure to keep moving regardless of movement quality, and the sheer volume of propulsive work without the right kind of training leaves tendons exposed. In that situation, the muscle is strong enough to produce the force, but the tendon isn't strong enough to cope with it. The result is inflammation, pain, and a slow-healing injury that can sideline you for weeks or months.

If you love that kind of training, that's fine. Just make sure you're doing the strength work to support it.

Premier League football clubs, NBA teams, and Olympic programmes all have a schedule for their tendon work, and they're remarkably similar.

To build tendon capacity, you need to do slow eccentric-focused work.

Practically, there are several ways to do it. Here are a few to get you started:

1. Negatives
2. Isometric holds at end of ranges
3. Reps with a 3-4 second lowering phase on every rep
4. Exercises that specifically challenge deceleration, like reverse lunges with a slow descent, or single-leg RDLs with a pause at the bottom

In performing, the same concept extends over to ankle, knee, hip, wrist, and shoulder tendon issues, too, so working on these in tandem is important for injury prevention and physical availability over the course of your career.

As we said earlier in this book, the way to know whether you need to do this is whether you're already doing it. If you're not, you should start, particularly if you perform a lot whilst also doing endurance exercise.

If that's the case, I cannot stress enough how important it is to include this kind of training in your programming.

Tip 25: Break Your Technique Down and Train the Parts

Full body training builds the foundation on which your craft sits, but the final ten to twenty per cent should be specific to the instrument you play.

By taking the specific movements and positions you hold for long periods and breaking them down into their constituent parts, you can strengthen, balance, and improve the resilience of these areas.

With generic programmes like those of social media influencers or apps, they don't account for what you actually do. No Premier League strength and conditioning coach would write a programme without first understanding the player's positional demands. A centre-back has different physical needs than a winger. It might be the same sport, but they have completely different demands. The same logic applies to you. A drummer's demands are different from a guitarist's, a singer's different from a cellist's.

For example, if you're a drummer, among other things, you need to reach forward and overhead to play the crash cymbals. So, in your training, if you pre-fatigue the stabilising structure of your shoulder with a horizontal pull before performing a landmine press, you can emulate a more real-world representation of what you're asking your body to do when you're performing. If you twist a lot, train anti-rotation. If you push a lot, train the deceleration. By matching every action with its opposite, you can build resilience into your system at ground zero.

This is the reason generic training can lead to half-baked results as a musician.

Start from the demands your body faces, and work backwards into a programme, and think more like you're in the Premier League.

Tip 26: Never Stop Rehabbing

Most people think of rehab as something you do after an injury.

You get hurt, you see a physio, you (maybe) do the exercises they give you, and then you stop.

As you know by now, the physical, repetitive nature of what we do bakes imbalances and weaknesses into our physiology. It's not a question of if. It's a question of where and how deeply they are ingrained.

Think of your body like a car. You don't service it just once. You have an annual plan. You might need a new clutch at 60,000 miles, a new cambelt every six years or so, new tyres every couple of years, and if something crops up between scheduled services, you get that looked at, too. You do these things without question because you understand they are a fact of owning a car, and you should have the same approach with your body.

There's a never-ending list of weaknesses to target, develop, and rebalance. So, stop thinking of corrective work as something you do when you have an injury and start thinking of it as a permanent, non-negotiable element of your training that's woven into your training alongside strength work, conditioning, and skill development.

Physical Conditioning: Quick-Reference Checklist

At the end of each section of this book, you'll find a page like this one.

There's a lot to take in across these chapters, and you're not going to remember all of it. And so, these quick-reference checklists are designed to give you the actionable steps you need to apply these tips in the real world.

Pick a few things that feel relevant to where you are right now and start there. If you're brand new to training, start with the foundations. If you've been training for years but you've hit a wall, look at the programming and session principles. If you're managing an injury, go straight to the injury prevention section.

I hope you find this helpful.

Foundations (Daily / Ongoing)

1. Breathe backwards, not upwards. Direct your inhale toward the back of your ribcage.
2. Breathe through your nose during training to build CO2 tolerance.
3. Train barefoot or in barefoot shoes where possible.
4. Train your core in all directions. Not just flexion (abs), but anti-rotation, anti-extension, and lateral stability, too.
5. Make your cardio fun. Agility ladders, cones, skipping ropes, and play-based formats all count.

How You Move

1. Prioritise unilateral exercises over bilateral where possible.
2. Balance your body front to back. Open what's tight. Strengthen what's weak.
3. Treat your posture as a trail of breadcrumbs, not a position to hold. Train the patterns, not the pose.
4. Train in all three planes of motion. Add lateral and rotational elements to your programming.

Programming Your Training

1. Train full body, not bodybuilding splits. Distribute the work so no single area is overworked.
2. Progress beyond just adding weight. Use tempo, stability, complexity, range of motion, and volume.
3. Build a training toolbox with multiple session types: full sessions, metabolic resistance, steady-state cardio, mobility, and movement snacks.
4. Periodise your year and plan in blocks.

In The Session

1. Start with one kettlebell if you're new. Swings, goblet squats, rows, and presses cover a lot of ground.
2. Use the right tool for the job. Kettlebells, dumbbells, cables, TRX, bands, and bodyweight all serve different purposes.
3. You don't need a gym. A kettlebell, TRX, bands, and a pull-up bar in a spare corner are enough.
4. Aim for 7 out of 10 across your session. Use RPE for bodyweight/cardio, and RiR for loaded exercises.
5. Never train to failure. Stop 1-2 reps short of technical breakdown.
6. Time your rest between sets and use it wisely (coordination drills, balance

work, or just breathe).

Staying Injury-Free

1. If you have a niggle, say it out loud. The culture of silence around injury is outdated.
2. Stop chasing soreness. DOMS is not a measure of progress.
3. Know your weak points and train them first, not last.
4. Give your tendons as much attention as your muscles. Slow eccentrics, isometric holds, and deceleration work.
5. Break your instrument-specific movements down and train the parts.
6. Treat corrective and rehab work as a permanent part of your programming, not something you do after an injury.

III

PART THREE: MENTAL CONDITIONING

Introduction To Mental Conditioning

If you picked up this book to build strong physical foundations so you can perform consistently at your best, you should now feel much closer to that goal.

You just need to act.

The sooner you do, the sooner you'll start building a body that is stronger, more mobile, more resilient to injury, and better equipped for doing "the thing".

But becoming an athlete in your own right isn't just about your physical body. It's also about your mind. And not in a surface-level, self-help sense of affirmations and positive thinking (although there is some science behind that). You need to think more in an operational sense. For most musicians, this is normally left entirely to chance. So this section of the book is dedicated to removing chance from the equation.

You'll learn about how your nervous system acts as the lens through which you see the world, how your neurochemistry governs your focus and motivation, and how your psychological patterns determine how you react under pressure, so you can thrive when the opportunity comes to take another step up the career ladder.

Luck isn't just luck...

It's the meeting point of preparation and opportunity. And you need to make sure you're prepared as best you can, because those chances don't come around every day.

You absolutely need to take care of the Physical Conditioning side of things, but you can be in the best physical shape and still find your body resists the

demands you're placing on it. I've noticed that it's the people who don't have this stuff together who get injured the most, because they're trying to force their physiology to do things that it is actively working against doing. That takes its toll over time. And the worst bit is that these people don't know what they don't know, and they're often not interested in knowing, either.

What happens between your ears influences your body more than you know.

If there's one thing I learned from my brain injuries back in 2023, it's that there really is no difference between the physical and mental systems of your body. In my eyes, they're the same system.

Mental Conditioning is the second pillar of your development as an athlete. In this section, I'm going to give you the tools to understand, train, and take control of the systems that underpin your ability to perform.

But a quick word before we begin. Mental Conditioning and mental health are not the same thing. Mental health is your overall psychological well-being. Mental Conditioning is the deliberate training of the cognitive and emotional skills that drive performance. This section deals with the latter. If you feel you are struggling with your mental health, please reach out to a qualified professional for support. There is no shame in doing this. You go to the doctor when you have a physical ailment. So why would you treat your mind any differently?

Let's get started.

The Physiology of Performance: A Primer

Throughout this section, I'll be mentioning terms like "high-beta", "alpha", and "the alpha-theta border".

They're a topic in their own right, so before we get into the tips, here's a quick primer to get you up to speed.

Your nervous system has two main modes.

The sympathetic mode (your fight-or-flight system) and the parasympathetic mode (your rest-and-digest system). At any given moment, one of these is more dominant than the other, and that balance directly affects how aroused your brain is. When your sympathetic system is running hot, your brain speeds up. When your parasympathetic system takes over, your brain slows down.

That speed shows up as brainwave frequencies.

When neurons fire across your brain, they produce electrical oscillations, and the speed of those oscillations tells you what state your nervous system is in. Think of it like a car. The more gas you use, the more activated you are. And the more you use the brake, the calmer you are.

The bridge between the two is the vagus nerve.

It's the main highway of your parasympathetic system, running from your brainstem all the way down through your chest and into your gut, whilst connecting to many of your vital organs along the way. When vagal tone is high (meaning the vagus nerve is doing its job well), your parasympathetic system can pull the handbrake on your sympathetic activity, and your brain slows down.

That mechanism is the underlying lever behind what we'll cover in Tip 28.

Each of the inputs we'll discuss shifts your nervous system balance, which in turn shifts your brainwave state, which in turn shifts what you have access to cognitively and physically.

So when I talk about brainwave states in this book, I'm really talking about where your nervous system is sitting at any given moment and the impact it has on your cognitive function.

Here are the five main frequency bands and what they mean for you:

1. **Gamma (30-100 Hz):** Peak concentration, learning, and problem-solving. Active during moments of high cognitive demand while you're performing and practising. You'll be in gamma when you're deeply locked into complex material.
2. **Beta (13-30 Hz):** Alert, analytical thinking. This is your default waking state, and there are two forms of beta you need to know about. High beta is where stress, overthinking, and anxiety live. Low beta is focused and productive. Most of your day is spent somewhere in this zone. For me, this feels sharp and "zingy".
3. **Alpha (8-13 Hz):** Calm, relaxed awareness. The bridge between conscious thinking and deeper states. This is where you'll find access to creativity, light focus, and the early stages of flow. When your self-talk quietens down, and things start to feel effortless, you're likely in alpha.
4. **Theta (4-8 Hz):** Deep relaxation, meditation, and the subconscious. Present during light sleep and REM. The alpha-theta border is where flow state peaks, and it's the zone where your best performances come from as you can "get away" from your conscious self.
5. **Delta (0.5-4 Hz):** Deep, dreamless sleep. This state is essential for physical recovery and memory consolidation. You won't be performing in delta, but your ability to access it at night determines how well you recover.

These states exist on a spectrum, and your brain is always producing a mix of frequencies.

The goal isn't to "be in alpha" all the time. It's to understand which

predominant state serves you in a given moment, what it feels like, and to know that you have the tools to nudge yourself in the direction you want to go on the scale.

This is complex stuff, and it takes time to understand, so feel free to drop back into this section periodically if it helps.

For now, let's get into the tips.

Chapter 6: The Operating System

> *"If you get a zebra running from a lion, the stress response is a brilliant thing. But if you turn it on for thirty years because of your mortgage, you're in trouble."* ***— Robert Sapolsky***

Robert Sapolsky is a Stanford neuroendocrinologist who spent years in the Kenyan savanna studying wild baboons.

He'd watch the same troops for months, dart them with anaesthetic, and draw blood before they woke up. What he was measuring was how the social hierarchy was affecting their bodies. His findings showed that the baboons at the bottom of the hierarchy had cortisol levels through the roof, and he deduced that the pecking order among them was enough to keep their stress response running constantly. Through his research, he noticed that this overactive stress response was wearing their bodies down.

He brought those findings back to humans and found the exact same pattern.

A stress response designed to save your life in a crisis becomes the thing that wears you down when it never turns off. Your body runs the same chemistry whether you're running from a predator or lying awake at two o'clock in the morning after getting in from a gig.

As a musician, your stress response is probably already running higher than most. What we do for a living is inherently fiddly and high-pressure, not just because of the audience watching and their expectations, but because of judgment from your peers, your own internal criticism, and a lifestyle that comes with its own set of problems. We'll get into all of that in the coming

chapters.

When you start to deconstruct the mechanisms at play, you'll find that most of this has been running without your input. Understanding it gives you a way to intervene, take back some control, and stop leaving so much of your performance to chance.

This chapter is about helping you to navigate that process.

Tip 27: Learn Your Nervous System

If there's one thing I'd like you to take from this section of the book, it's the idea that your nervous system is the lens through which you perceive the world, and that everything else runs on top of it.

It's responsible for translating your external experiences into an internal narrative. And that narrative is what defines your physiological and psychological response to the world around you. Stephen Porges calls this "neuroception"—your nervous system constantly scanning for safety and threat, below conscious awareness. That's why you can feel anxious before you've even identified what's wrong.

As a performer, you may have experienced stage anxiety, imposter syndrome, or the feeling of fighting your technique for no obvious reason. These experiences result from your nervous system interpreting the environment you're in as a threat, and your brain constructing a story to match.

Most people try to fix these problems from the top down.

They try to meditate their way out of anxiety and think their way out of imposter syndrome. But it doesn't work, because the problem isn't in the thinking. It's in the physiology underneath. Your nervous system is generating a state, and your brain is just doing its best to make sense of it.

Your brain is also part of your nervous system, and your nervous system state is linked to specific brainwave frequencies. These brainwave frequencies work together to determine very real character traits. We often perceive these traits to be part of our inherent personality. We say, "I'm not creative". "I've never been good at focusing". "I have an internal voice that won't shut up". But the reality is that these traits are associated with different brainwave

states. And if you can access the ability to change these states, then you'll find you have access to traits you thought didn't belong to you. If you want to find out more, please refer back to the primer above on the physiology of performance.

Your goal is to learn to shift between these states using a range of different inputs, but it starts by understanding how the system works. Once you can understand it, you can influence it. And once you can influence it, the downstream effects can be huge.

It's not easy, and it requires constant attention because, as soon as you think you've cracked it and you take your mind off it, you'll start slipping back into old habits.

Nervous system literacy is the single most important meta-skill you can develop as a performer. Things like technique, theory, ear training, and all of the other skills you have developed matter, of course. But they all run on top of this system. If the operating system is compromised at the most foundational level, everything above it underperforms.

This is why nervous system literacy sits at the heart of Performance Conditioning. It's the foundation that everything else in this book is built on.

Tip 28: Know Your Three Routes to a Different State

So, how do you change your nervous system state?

Your nervous system is (very roughly) split into two main sides. You have your sympathetic side, otherwise known as flight/fight mode. And parasympathetic, otherwise known as your rest/digest mode. The easiest way to think about it is that your sympathetic system is like the gas pedal on a car. It speeds up your thinking, your heart, and your breathing. And your parasympathetic system does the opposite, acting as a physiological brake pedal.

There is a common narrative that your sympathetic side is bad and your parasympathetic side is good, but that's not really the case.

It's just that the modern world is wired to trigger the sympathetic switch

constantly, so we often end up in a chronically dysregulated state, which can be terrible for our health, our personalities, our jobs, and our enjoyment of life.

You need each side as much as the other.

If you didn't have your parasympathetic side, you would have no mechanism to slow down your heart rate. If you didn't have your sympathetic state, you would have no mechanism to speed it up. As you know, your heart rate needs to live within certain parameters, so each side is vital to keep you alive. The trick is to learn how to control each side of your nervous system in the wider context of the world we live in. And, as musicians, that extends to our ability to regulate under the pressure of performing.

There are three main pathways that you can choose from to do that, and each route serves a different purpose.

The trick is to know which one to call on, and when.

1. **Outside-in:** This is where you use external input to change your physiology without doing anything mentally or physically demanding. Neuroscientifically designed music (otherwise known as Functional Music) is designed to help you achieve exactly this outcome. Brain.fm is the original, and at the time of writing this book, it's the best by a long way. Cold exposure is a great way to trigger a sympathetic reset. Heat helps with parasympathetic recovery. Weighted blankets can activate deep pressure receptors. Specific lighting or tinted glasses can influence circadian rhythm. These tools work because they bypass your conscious brain entirely. You don't have to think your way into a different state. The input does it for you, which means that if you're mentally exhausted, this is usually the best entry point.
2. **Top-down:** This is where the mind influences the body, including NSDR (Non-Sleep Deep Rest), meditation, journaling, visualisation, and deliberate silence. These require more cognitive engagement, which means they work best when you've got enough capacity to do them. If you're feeling overwhelmed or mentally fried, asking yourself to sit down and meditate can be a big ask. But when you've got the capacity, top-

down tools are incredibly powerful. Visualisation primes the same motor pathways you use in performance. Journaling helps your brain process and discharge emotional load. Silence gives your auditory system (and by extension your vagus nerve) a chance to reset.

3. **Bottom-up:** This is where the body influences the mind, and you can work through the body's sensory and motor systems to shift your internal state. Think along the lines of breathwork, walking, rope flow, eye movement drills and humming. When you extend your exhale, you activate the vagus nerve and trigger a parasympathetic response. When you hum, the vibration stimulates the same nerve through the larynx. When you walk, the bilateral stimulation helps your brain to process and integrate information across both hemispheres, reducing emotional reactivity and enhancing cognitive clarity. Bottom-up regulation is my go-to for myself and many of my clients because it's physical, it's immediate, and it doesn't require you to sit still and be quiet when your system is overloaded. Breathwork is the single best tool you can take on stage to regulate yourself during performance, so I like to start building this skill early with my clients, as it can take a bit of practice.

Tip 29: Identify Which Kind of Fatigue You're Feeling

If you're feeling fried, there are two main types of fatigue that you're likely to feel.

The first is muscular fatigue. It makes you feel weak, achy, and potentially in pain, and it's an immediate signal that we, as humans, understand as a cue to rest. The other kind of fatigue you're likely to feel is much more intangible and can slide under the surface undetected unless you know it exists. This is neural fatigue.

Neural fatigue, a reduction in your nervous system's output and efficiency, occurs when the brain and spinal cord are overloaded and subsequently reduce their ability to recruit, coordinate, and fire effectively. It shows up in your reaction speed with unexplained sluggishness, and in your coordination, timing, and decision-making with a feeling of not quite being in control. It

quite often results in having to consciously engage your brain more than you'd like in tasks that would normally feel easy.

When you feel like this, you're not tired in the traditional sense. You're neurally depleted.

You only have a finite "neural budget". And performing is neurally expensive. You're processing multiple streams of information simultaneously: Timing, dynamics, tone, ensemble awareness, acoustics, physical mechanics, emotional expression, and more. That's a huge neural load. Add travel, poor sleep, and the general stress that comes with the life you lead as a musician, and it's not hard to see how you could spend that budget quickly.

Now, add training on top of that.

If you don't understand the neural implications of your training, you can accidentally spend through your budget and subsequently fry yourself for your gig that night.

Yes, you'll never regret a workout in the long run. But you equally might regret the wrong workout on the wrong day.

You can train neural capacity in the same way that you train muscles.

And there are four elements at play:

1. The neural load of your training (complex exercises, new skills, high-coordination exercises, and strength-specific training are more expensive than simple ones).
2. The neural load of performing (which varies depending on the gig, the repertoire, and your familiarity with the material).
3. Your ability to sense when your neural reserves are low (and learning to feel the sensations relating to your nervous system in your body).
4. The type and duration of recovery required (neural recovery is different from muscular recovery, being more about sleep quality, down-regulation, and cognitive rest than it is about protein shakes and foam rolling).

A 2022 study at the Paris Brain Institute found that prolonged cognitive effort actually causes measurable chemical changes (glutamate accumulation) in

the prefrontal cortex. It isn't a psychological phenomenon. It's a physical one.

George Mumford, the mindfulness coach who worked with Michael Jordan and later with Kobe Bryant and the LA Lakers, talks about this in terms of "managing the inner environment." His entire methodology was built around helping elite athletes protect their neural reserves under the highest-pressure conditions in sport.

Nobody in the music industry is talking about this.

But we should be.

Tip 30: Look Beyond Practice

If you find yourself practising for hours, only to find yourself on a gig and you can't seem to push past the issue, the answer might not be more practice.

Instead, it might be your physiology getting in the way of your skill.

It's important to caveat this point to say that you can't use it as an excuse not to spend more time practising. Practice is great, and you should never stop. But the number of people who have come to me for lessons over the years, thinking they have an issue in their playing, only to discover they've done everything right, but they've been working on the wrong thing, is remarkable. We are conditioned from a young age to see practice as the "fixer of all problems". But this doesn't factor in the physiological changes that occur when you move from your practice room to the stage.

Not all problems are technical.

So what's actually going on?

When your baseline nervous system tension is elevated, either from stress, sleep fatigue, or just the mere fact that you perform for a living, it shows up in your body in ways that you might not connect to your playing. Low-grade tightness reduces motor control because the prefrontal cortex (the area that coordinates precise movements) is diverted toward threat management. Heightened nervous system activity can also mess with your ability to sense time (the sense of chronoception), so you may find you speed up or your note placement changes.

As a rhythm section player at heart, I'm always thinking about the idea of

"feel", and I've watched many lessons across social media and YouTube over the years with various very well respected musicians "deconstructing" how they achieve their "buttery" feel.

But they all leave out one crucial thing.

Feel is literally a result of how you are feeling. If you feel relaxed, your nervous system will relax. If your nervous system can relax, your brainwave state will downshift, your baseline muscle tension will disappear, and you'll have access to both a flow state and to everything you've been working on in the practice room. You need to help your body and mind feel safe. You can't acquire good feel if you don't feel good.

This is part of a much bigger shift that I believe is overdue in our industry.

Athletes in sport have long known that great performance isn't about talent. It's about physiological and psychological systems working in tandem. They train the systems diligently and place their craft on top.

We, as creative athletes, have been taught the opposite...

To put all your focus on the craft and hope the rest takes care of itself. As someone who has been doing this for twenty years and counting, I can tell you that it doesn't. So if you're stuck on something and more practice isn't fixing it, it's time to look deeper. The answer might not be in your technique.

Instead, it may well lie in your nervous system.

Tip 31: Protect Your Dopamine System

Your dopamine system is the neurochemical engine behind motivation, decision-making, and the ability to delay gratification.

When it's functioning well, you feel driven, you make better choices, and you can resist the easy option in favour of the one that serves you in the long term. When it's depleted or dysregulated, you'll likely take the path of least resistance, and you'll find your willpower is no longer what it once was.

The problem is, the world has been designed as one big trip hazard for this system. Social media, alcohol, sugar, and caffeine all artificially spike your dopamine, and when you spike this system, you'll get a big surge, followed by a sustained dip below baseline. The more frequent the spikes, the lower your

baseline drops, and the more you need to find your next fix to feel normal. Over time, your dopamine system recalibrates around the artificial inputs, and the things that should naturally drive you (like training, practice, creative work, and meaningful progress) stop generating enough dopamine to feel rewarding.

I've noticed this in myself over the last few years, particularly as a result of my brain injuries. When I train consistently and keep my social media use to a minimum, everything else I'm working on tends to fall into place. Most notably, the link between social media and nutrition is a big one for me. It's an unlikely correlation, but when you understand the mechanism behind it, it becomes a whole lot more obvious.

Dr Anna Lembke at Stanford calls it "a neurological seesaw between pleasure and pain". Every artificial spike tilts the seesaw, and the brain counterbalances by pushing it in the opposite direction. Over time, the seesaw resets at a lower baseline, which is why the same amount of stimulation stops working, and you need more. Her clinical work demonstrates that even a 30-day "dopamine fast" from a primary source of artificial stimulation can measurably reset baseline levels.

If you want more discipline, more consistency, and better decision-making in your day-to-day life so you can create a life that serves you in the long run, you need to stop looking at willpower as a character trait.

Instead, you should start looking at it as a function of your dopamine system. You could even do an audit of things you do that might spike this system.

I've created an AI prompt below that will help you to do just that in five minutes flat:

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"I want to do a Dopamine Audit of my daily life. Ask me questions
one at a time to help me honestly evaluate all the inputs that
might be artificially spiking or destabilising my dopamine system
(including phone and screen use, social media, sugar and food,
alcohol, caffeine timing, news consumption, silence and stillness,
and any other stimulation-seeking patterns in my day). At the end,
summarise my audit, identify my highest-impact inputs, and suggest
two or three specific, realistic changes I could make this week to
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protect my mental energy and self-control as a musician."
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Chapter 7: Building the Performer's Mind

> *"The moment we believe that success is determined by an ingrained level of ability, as opposed to resilience and hard work, we will be brittle in the face of adversity."* ***— Josh Waitzkin***

Josh Waitzkin was an eight-time US National chess champion by the age of sixteen.

At twenty-three, he walked away from chess and turned his focus to Tai Chi.

Within a few years, he'd won the Push Hands (a competitive Tai Chi discipline) World Championship.

It's a completely different discipline, with a completely different body of knowledge, but the mental skills that made him a chess prodigy (such as focus under pressure, pattern recognition, and the ability to recover from a losing position) transferred directly. The game at hand had changed. But the way he learned to play it hadn't.

His big, meta insight was that the process of building skill is itself a skill.

He called one of his core principles "investment in loss". The idea that you have to be willing to get things wrong, repeatedly, to get better. The problem is that most people protect their ego and won't allow themselves to make mistakes.

As musicians, you are likely well aware of the idea of "investment in loss" because you have needed to go through this process to get good at what you do in a practice room.

The aim of this chapter is to show you how you can leverage the skills you

have already built so you can use them to develop your mental conditioning, in the same way that Josh Waitzkin used the skills of learning chess to learn and master Tai Chi in such a short space of time.

Tip 32: Separate Your Ability From Your Identity

It's baked into our culture to treat your skill and your identity as one and the same.

If you're at the bar with a mate, chewing the fat about other musicians on the scene, you don't say "John is good at playing the guitar". You say "John is good".

It's huge.

When your ability is your identity, every performance becomes an existential test. A bad gig doesn't just mean you played badly. It subconsciously means you are bad. That's the breeding ground for anxiety and perfectionism.

There's even a term for this... It's called identity fusion.

The idea behind identity fusion is that people whose entire self is organised around a single area of expertise tend to experience more extreme emotional swings, greater vulnerability to stress, and worse outcomes when that domain is threatened (Patricia Linville's work in 1985 showed this directly, if you're interested in finding out more).

The narrower your identity, the harder you fall when any part of it is challenged.

COVID-19 demonstrated this in all its glory. The UK government created a marketing campaign specifically aimed at the arts, featuring an image of a ballet dancer putting on her shoes and the text "Fatima's next job could be in cyber (she just doesn't know it yet)". By putting that message out to an industry whose sense of self is tightly bound to their craft, during an existential threat to that craft, the resistance was inevitable, as it felt like an invalidation of identity.

Musicians are especially prone to it.

We're identified as "gifted" from a young age, placed on an accelerator track, and never encouraged to explore what else we might be. By the time

we're professionals, you don't just play the bass. You are a bass player. You don't just play the violin. You are a violinist. This puts unreal pressure on you to constantly validate yourself to yourself through the quality of your performances, which has a detrimental effect on both the outcome of your work and the mental turmoil that follows each "substandard" show.

The fix is simple... You just need to care about more things.

I'm a husband, a parent, a writer, a business owner, a personal trainer, a performance coach, and a drummer. For me, it's not a distraction from music. It's a form of psychological insurance. It means a bad gig only threatens one part of you, not all of you. And it means that if COVID were ever to happen again, I can't experience another existential implosion.

There are other proven techniques for creating distance, and the key is to develop a growth mindset. Doing this helps you to move away from the idea of innate talent, which is inherently fixed, towards the idea that every skill you have is something you learned either through environmental exposure or direct effort.

The bottom line is, learn to put something between who you are and what you do.

Tip 33: Train Your Discipline Like a Skill

Most people treat discipline as something you're born with.

But it's not.

It's a scientifically proven trainable skill.

Discipline is the ability to do the thing you said you'd do, even when you don't feel like doing it. When you repeatedly choose to take action, you're training the neural route that moves decision-making from the prefrontal cortex (the deliberate, effortful, "should I or shouldn't I" part of the brain) into the basal ganglia (the habit centre, where actions become automatic). Phillippa Lally's research at UCL puts the average at sixty-six days for a new behaviour to become automatic. The takeaway here isn't the specific number. It's the fact that there is a number. Discipline has a timeline, and at some point, what originates as a conscious effort becomes more like a reflex. This

mechanism is the reason you're good at your instrument. You trained yourself to practice no matter what. The same applies to training, too. If you do it as a non-negotiable, it soon becomes part of who you are.

Motivation, on the other hand, is different.

Motivation is the reason behind the action, and it's driven by a much more complex cocktail of factors, including your comfort-to-pain balance, your self-identity, and your internal narrative. Discipline without motivation doesn't play out well.

Without motivation, you don't have consistency. Without consistency, there's nothing to be disciplined about. So, the question isn't "how do I get more disciplined?" It's "what am I motivated by, and how do I train the willpower to act on it consistently?"

First, you need to find the motivation... The deep reason that makes you want to show up in the first place. Then, you need to train the discipline to act on it even when the feeling isn't there.

There's more you can do, too.

Personally, when I feel like things are a struggle, I have a real sense that I need to dig in to move forward. So, I try to avoid that as much as I can. Why should things feel like a struggle if they could feel easy? I have a little trick that helps me with that when it comes to training.

I start my training week on Sunday, not Monday. If you train on Sunday, you go into Monday with a session already in the bank. That means for the rest of the week, you're looking for discipline, not motivation. Plus, you're a day ahead of the rest of the world, and for some reason, that feels good.

The other thing that helps is shrinking the first step.

If training for an hour feels like too much, just put your shorts on and commit to ten minutes. After ten minutes, you can either do another ten or stop. Rather than scrolling on your phone for half an hour, read a tip from this book and work out how you can implement it. Foam roll while you watch TV. Stretch while you're brushing your teeth. It all adds up.

BJ Fogg, a Stanford behavioural scientist and author of the New York Times bestselling book "Tiny Habits", built an entire research programme around this principle. His work shows that the biggest predictor of long-term

behaviour change isn't motivation. It's how small you make the first step.

You didn't sit down on day one of learning your instrument and immediately try to play "Flight of the Bumblebee" at a gazillion miles an hour. You started with the foundations and built slowly over time. The same applies with training.

The gap between doing "something" and "nothing" is smaller than you might think.

Tip 34: Train Your Attention Like a Skill

In life, we think of attention as being something you either have or you don't.

Not only is it trainable just like anything else, but there are also three different kinds of attention that you can improve:

1. **Selective attention:** Your ability to focus on a single stream of information while ignoring the rest. Think of this as singling out a single person's playing amongst a dense orchestration.
2. **Sustained attention:** Your ability to maintain that focus over time without drifting.
3. **Divided attention:** Your ability to process multiple streams simultaneously. For example, reading a chart, listening to the band, monitoring your dynamics, and managing your physicality all at once.

As a musician, you need all three running at the same time, which puts you in a surprisingly small category of professionals.

The neural systems responsible for attention are modifiable, meaning they can adapt to the demands you place on them. This is the sort of thing you take for granted as a musician, but I remember coming back to the first band call at Hamilton after COVID-19 and being metaphorically hit in the face by how my ability to concentrate had been diminished through the pandemic. If I'd known it was trainable, I would have worked on it in the same way I had to work on my hands in the run-up to the show reopening.

If you want to improve your attention, there are practical ways to develop

this without having to take any extra time out of your existing practice routine, because it's possible to actively train it at the same time as working on other things.

Meditation, for all its perceived mystique, is fundamentally an attention exercise. You focus on something like your breath, a sound, or a sensation, your mind drifts, and you bring it back. That cycle of drift-and-return strengthens your attention over time. But meditation is hard, and most people don't stick to the practice. Luckily, you can also train your attention through your instrument using the same foundational principle. By picking a single element of your playing (whether it's dynamics, time feel, or tone, for example) and holding your focus exclusively on that for an entire practice session, you can trigger the same mechanism as meditation, but applied directly to your craft.

With this method of practice, you can hyper-focus on specific elements of your playing that will not only make you better as a musician but also develop your attentional ability.

Neuroscientist Amishi Jha at the University of Miami describes attention as a "mental muscle" that weakens without use and strengthens with targeted training. Her research with US military personnel showed that as little as twelve minutes of daily mindfulness practice was enough to protect attentional capacity under high-stress conditions. If it works for soldiers deploying to combat zones, it can work for you when you walk on stage.

You already practice. You just need to add in the targeted mindfulness aspect to hit two birds with one stone.

Tip 35: Learn to Read Your Body

Learning to listen to, read, and interpret your own body is the meta-skill of meta-skills.

Also known as interoception, this skill is often called your "eighth sense". It covers everything from hunger and thirst to heart rate, pain, tension, balance of the nervous system, and even the need to use the toilet.

It's not a woo-woo concept coined by some long-haired, guitar-playing,

fireside hippy with a penchant for Class A drugs.

It's a very real skill. And if you have kids, you'll be watching this skill develop in your children every day.

For example, when they're transitioning out of nappies, they need to know what it feels like to need the toilet in time to ask and make it to the closest bathroom, and they need to know what happens if they don't act on the sensation. The same goes for hunger. Your kids don't just need to know how much to eat. They need to know how much they might need based on the time of day, when the next meal is, whether it's just a small snack in the mid-morning, or it's dinner time, and they need to get through the night. There are so many things for them to think about, and it requires a certain amount of development in the prefrontal cortex to help them reason alongside their emotions and interoceptive ability.

It's exhausting and fascinating to watch in equal measure.

Luckily, as adults, we have a fully developed prefrontal cortex with years of interoceptive experience. But it's still not always easy. Our hunger cues can become distorted. We can end up overeating or undereating. We can live in a chronically sympathetic state. And in a world that's full of people egging us on to buy something, act on something, and even make life-changing decisions, it can be all too easy to lose contact with our gut feeling.

As musicians, this is one of the most important skills you can develop. It will lead you through a trail of breadcrumbs as to how your physiology is balanced from day to day. And that knowledge will help you to work out how you need to warm up, cool down, or modify the way you approach your instrument on any given day of the week to ensure you perform at your best and avoid injury in the long run.

Research by Fustös backs this up. Better interoceptive awareness leads to better emotional regulation. If you can develop this skill, you'll make better decisions under pressure and show greater resilience to stress both in life and when you're at work. It turns out, being an athlete in your own right doesn't just mean developing your physical conditioning. It means developing your internal sensing.

If you can't tell the difference between being slightly activated and being

in a threat state, you can't choose the right response. You might try to calm yourself down when you're in a decent place. Or you might push through when your system is telling you to do the opposite. Every time you play through fatigue, you're overriding your body's signals. Every time you ignore a tightness and push through a gig, you're ignoring the inbuilt warning system that is such an important red flag before injury. And the more you ignore these vital signs and signals, the more your interoceptive ability will diminish.

What you need to do is train yourself to listen again.

I find that body scanning is one of the most reliable ways of developing this skill.

Let's try it now...

Put this book down.

Set a 2-minute timer on your phone. Sit or lie still. Close your eyes. And work from your feet to your head.

What do you actually feel?

What's there?

Where is there tension? Heaviness? Restlessness?

Scan through each body part slowly to see what you find. Imagine a spotlight being shone on the body part in question, and experiment with narrowing or widening the light to see what you find.

The goal here isn't to relax, it's to accurately notice what's going on without trying to fix it.

I can guarantee from both my observations of twenty years in the industry as a player, and more recently my years of working 1-1 with musicians around the world from a physical and mental conditioning perspective, that those who manage themselves the best over a long career are the ones who have learned to notice what they're feeling and respond accordingly, whether they realise they're doing it or not.

Whatever you do, don't sleep on this skill.

Chapter 8: Before You Play

> *"I never hit a shot, not even in practice, without having a very sharp, in-focus picture of it in my head."* ***— Jack Nicklaus***

Jack Nicklaus won eighteen major golf championships.

More than anyone in history. Even Tiger Woods.

His trick lay in the fact that, by the time he stepped up to a ball, the shot had already happened. He'd seen the ball land, the trajectory, the shape of the flight, the way it would bounce and roll. Then he'd see the swing that would produce it.

Only then would he address the ball and play the shot for real.

He called it "going to the movies."

To anyone watching, it looked like he was staring at the fairway, doing nothing. But that pause was the most important part of the process. He did it for every single shot, in every round, for his entire career.

Neuroscience has since confirmed what Nicklaus already knew.

The brain doesn't fully distinguish between a vividly imagined action and a real one.

Nicklaus had the luxury of doing this before every single shot. As a musician, you can't always do that. Sometimes the situation is just that you need to play what is put in front of you, and that's a skill in its own right. But what matters is knowing that these mechanisms exist, understanding how they work, that they are real and proven across a plethora of disciplines and industries, and that you, too, can call on them in the moments of your career that you need

them most.

Performing at your best day after day requires a certain level of consistency across your body and mind, and it's this physiological consistency that, more often than not, determines whether you have a "good" gig or a "bad" gig. So, before you play, you need a way to identify where you're at, so you can move yourself into the right zone to perform. That's what we are going to get into in the coming tips, so let's get at it!

Tip 36: Your Warmup And Cool Down Should Match How You Feel

If you have a warmup routine, I'd wager that it's the same stretches, exercises, and instrument-based sequence every time.

If you're superstitious, I'm not going to get in the way of your preparation, but if you're one of those people who warms up just because they feel like they should, I'd like you to consider another option.

Your body is different every day. Some days, you might wake up feeling great. Some days your shoulders might feel tight. Others, your brain might feel like it's working in Pacific time. The thing is, it makes very little sense to run the same fixed warmup routine when your body is always changing. That's like taking the same medication regardless of your symptoms. It might help, but equally, it might not. And as a professional who relies on being at their best every day, can you afford to take that risk?

To overcome this, you need to build a toolbox.

This is the same approach that elite athletes use. Sports psychologist Dr Jim Taylor, who has worked with Olympic and professional athletes for over thirty years, argues that pre-performance routines should be flexible systems, not rigid sequences. His research shows that athletes who adapt their preparation to their current state outperform those who follow the same routine regardless of how they feel.

If your body is cold or stiff, do some banded activation work to wake up the muscles. If you're feeling sluggish and mentally foggy, try an NSDR to reset your nervous system. If you're tight through the chest or shoulders, spend a

few minutes on dynamic stretching or thoracic mobility. If you feel fine, then do nothing and have confidence in that decision.

While we're here, let's talk about cool downs.

In training, the warmup prepares your body to move by raising your heart rate and lubricating your joints. The role of the cool-down is to return the muscles to their original length (as they have been contracting relentlessly during your training session or gig). If you skip the cool-down, your muscles will gradually shorten over time, affecting your baseline posture and your ability to move freely.

I've noticed that when I cool down properly after a gig, I don't need to warm up the following day. So, I've become more invested in my post-gig routine than my pre-gig one. I find rope flow is a big part of that. It decompresses the spine and helps to downshift the entire system, which means you go to bed with less tension, which means you don't wake up stiff, which means, when you go to pick up your instrument, everything just works.

Food for thought.

Tip 37: Prime Your Brain Before You Play

You've warmed up your body. But have you warmed up your brain?

On the days when you feel tired or sluggish, taking a couple of minutes to engage your brain can really pay dividends. Don't forget, what we do is a physical thing. You could have the most physically prepared body in all the land, but if the master controller is on another planet, then your well-meaning warm-up was for nothing.

Here's a quick neural capacity session to help you when you're in this state. It takes four minutes. Do them in order as they progress in difficulty:

1. **Session Warm Up 1 (30 seconds):** Cross-body finger tapping: Tap your left index finger and right pinky simultaneously, then switch to left pinky and right index. Alternate back and forth. This lights up the corpus callosum (the bridge between your brain's hemispheres) and primes bilateral coordination.

2. **Session Warm Up 2 (30 seconds):** Rhythmic opposition: You may have done this before, but it's a great neural coordination exercise too. Tap a steady pulse with one hand while the other taps a different subdivision (one hand in fours, the other in threes, for example).
3. **Main Session Exercise 1 (1 minute):** The fist-palm switch: One hand makes a fist while the other lies flat. Switch simultaneously. Simple at first, but add speed, and it quickly exposes any lag in your motor programming.
4. **Main Session Exercise 2 (1 minute):** Alternating finger-to-thumb taps: Touch your thumb to each fingertip in sequence (index, middle, ring, pinky), then reverse. Then do both hands simultaneously. Then shift one hand so it leads the other by one finger. Start slow. If you can still do this without fault, start speeding it up, and you'll quickly see your coordination fail you. Once you reach this point, back off just a touch and see if you can maintain the pattern.
5. **Main Session Exercise 3 (1 minute):** Reverse finger tapping: Touch your middle finger to your thumb. Now, your index finger to your thumb. Now your little finger. And now your ring finger. On the other hand, start with your middle finger, but go the other way (middle, ring, little, index). Tap each finger in each hand on your thumb at the same time and start moving through the drill. Your fingers will be moving in opposing directions. Once you've got it, speed it up.

These drills activate the neural pathways responsible for fine motor control, timing, and bilateral coordination. Doing this before you perform will help eliminate that feeling of "brain lag". Give it a go!

Tip 38: Visualise Before You Perform

Mental rehearsal activates many of the same neural pathways as physically performing the task.

In 2008, Michael Phelps competed at the Beijing Olympics. During the 200m butterfly final, his goggles filled with water. But, not only did he finish the

race, he won gold and set a new world record in the process.

Luckily for Phelps, his coach had systematically trained him to rehearse worst-case scenarios in advance, and one of those scenarios was what to do when his goggles leaked. So, when the situation arose during one of the most important moments of his career, he had visualised what it would feel like, how it would affect him, and what he would do to overcome it.

Now, you can't entirely put his winning down to the fact that he had visualised the situation. That would be doing his years of preparation a disservice. But it did help him reduce his panic response and preserve his ability to make decisions under stress, allowing him to maintain his rhythm and execute the task at hand automatically.

I've always been sceptical of visualisation, but it plays out again and again.

Conor McGregor uses it. As does Jonny Wilkinson. Tiger Woods. Tom Brady. And outside of sports... Jim Carrey. Oprah Winfrey. Arnold Schwarzenegger. Lady Gaga. Beyoncé. Denzel Washington. Richard Branson. The list goes on.

If it's good enough for them, it's good enough for me.

Visualisation isn't just positive thinking.

It's targeted motor imagery. When you vividly imagine performing a physical action, the motor cortex, the cerebellum, and the premotor areas of your brain all fire in almost the same pattern as they do during real execution. The only major difference is that the final output signal to the muscles is suppressed. What that means in practical terms is that you can rehearse your performance in all its detail (feel, physical sensation, environment, transitions, etc.) without being on stage. You can prime the neural pathways that will be called upon later, so that when you play for real, the system has already been through a version of it.

The key to executing it properly is specificity. Vague visualisation like "I imagine it going well" is useless, but targeted visualisation ("I hear the count-in. I feel the sticks in my hands. I see the lighting. I hear the foldback mix") is where the true value lies. The more sensory detail you can include, the closer the neural activation. And the more you go through adverse situations, the better prepared you will ultimately be.

What you do in the waiting period before going on stage matters too. If

you're hunched over your phone with your shoulders forward, your neck down, and you're scrolling through social media, your nervous system is in a completely different state than if you're standing, breathing, and mentally walking through the first few minutes of the show. Your physical posture feeds back into your psychological state. And the psychological state you take on stage tends to be the one that remains for the rest of the performance.

Obviously, you wouldn't need to do this on a gig you know well, but it can be a helpful tool for those moments where you're being asked to step up to the next level on the career ladder. Remember... Luck is preparation meeting opportunity. So make sure you leave no stone unturned. You don't want to be on stage in an 80,000-seater stadium with an in-ear that's become unplugged mid-song and no plan for what happens next.

Tip 39: Reverse-Engineer Your Flow State

If you're a professional musician, I'm going to assume you know what a state of flow feels like.

It's that feeling when your hands seem to know what to do before your brain catches up.

The problem is getting there on purpose.

Flow is a neurobiological event with specific conditions, and Mihaly Csikszentmihalyi's (try saying that after a few pints) decades of research identified a consistent set of them. The task must be challenging enough to engage you fully, but not so challenging that it overwhelms you. This state is famously difficult to incite with any degree of consistency. And if you can do it, not only will your performances become just like the ones you think of in your head, but you'll find a host of other benefits, including vastly improved levels of productivity. A widely cited McKinsey study found that executives reported being up to five times more productive during flow states. The methodology behind the figure has been debated, but the direction is clear. Flow makes you significantly more effective.

Flow itself is dictated largely by five neurochemicals: norepinephrine, dopamine, endorphins, anandamide, and serotonin. It's influenced by your

brainwave state. Specifically, the transition from beta (analytical thinking) into the alpha-theta border (where creativity and pattern recognition peak). If those terms don't mean anything to you yet, feel free to take a look back at the guide at the beginning of chapter six for more information.

These states are accessible, to varying degrees, through deliberate nervous system regulation.

For most people, the easiest entry point is outside-in.

Functional music designed to shift brainwave states is one of the most underused tools I've come across. It's specifically engineered audio that uses twelve musical variables, including rhythm, frequency, quantisation, and tempo, to guide your brain toward the state you want to be in. I find it to be the most reliable tool for inciting a state of flow (I'm never without it when I'm working on Performance Conditioning client programming and content creation, and I'm listening to it right now as I write this book). You can get there in other ways, too. You just need to keep downshifting (or upshifting, depending on what you've been doing) until you get to the right zone.

But don't go too far, as it's easy to overshoot.

That said, you can't always have headphones in. When you're on stage, and you want to get into flow, the research points to one consistent trigger... A single point of focus. So, pick one element for the first couple of songs (like your time, your dynamics, or one specific person in the band) and focus on it intently. That narrowed attention, according to the science, is what creates the conditions for the transition into flow.

Tip 40: Reframe Pressure as a Challenge, Not a Threat

There are two more physiological states you need to know about.

These are the challenge and threat states.

In a challenge state, your cardiovascular system responds by dilating blood vessels, increasing cardiac output, and improving blood flow to the brain and muscles. You get sharper. Your reaction times improve. Your fine motor control is on point. And you're activated but not overstimulated.

In a threat state, the opposite happens. Blood vessels constrict. Cardiac

output drops relative to demand. Blood flow to the extremities reduces. And your body prepares to protect, not perform. The result is a tight, constricted feeling where everything feels harder than it should, because you're working against your own physiology.

The difference between these two states is how your brain evaluates the pressure of being in a performance situation. This unconscious evaluation, on a simplified level, goes like this: "Do I have the resources to handle this?" If the answer is yes, you shift into the challenge state. If the answer is no, even slightly, you shift into threat state.

It's one of our most primitive evolutionary traits.

Most people, if they end up on the wrong side of the tracks, try to suppress their internal narrative. "Don't be anxious. Don't be anxious!"

But, if you're told not to think of a camel, what are you going to think of?

The thing is, "don't be anxious" doesn't change the appraisal. It just adds another layer of cognitive effort on top of the existing anxiety. Reframing the sensation as excitement, readiness, and preparation shifts your state because you're telling your brain that the arousal is a resource, not a threat.

The research supports this. Studies on athletes and performers consistently show that those who interpret pre-performance arousal as helpful outperform those who interpret it as harmful, even when the physiological arousal is identical.

It's easier said than done, but so is everything worth having in life.

Steve Kerr, the Golden State Warriors head coach and one of the most successful coaches in NBA history, has spoken openly about how he creates a "challenge culture" rather than a "pressure culture" within his teams. He argues that the environment you build around performance determines which state your people default to. If the environment punishes failure, you get a threat state. If it rewards effort and process, you get a challenge state. The same logic applies to the environment you build inside your own head.

You can't control the pressure, but you can train how you appraise it. So, purely by focusing on the things you can control, you'll find yourself in a better place (or at least on the road to it).

Chapter 9: In Performance

> *"For 42 years, I've been making small, regular deposits in this bank of experience, education and training. And on January 15, the balance was sufficient so that I could make a very large withdrawal."* — ***Chesley "Sully" Sullenberger***

On January 15, 2009, Chesley Sullenberger was captaining US Airways Flight 1549 when a flock of Canada geese took out both engines at 2,800 feet.

He had 208 seconds (the time between the bird strike and the water) to react.

In those 208 seconds, he had to process what had happened, assess whether he could make it back to LaGuardia (he couldn't), assess whether he could reach Teterboro (he couldn't), choose the Hudson River, configure the aircraft for a water landing, and put it down with the wings level, the nose slightly up, and the speed just above stall.

All 155 people on board survived.

Within two seconds of the strike, he'd made his first decision to turn on the auxiliary power unit. It was on the checklist, but not until much later. At 2,800 feet, he didn't have time to wait. That decision to jump ahead wasn't in the procedure. It was the instinct he had developed throughout his forty-two years of flying experience.

Everything you've read so far in this book (the physical conditioning, the mental conditioning, the skills and frameworks) is a deposit in your "bank of experience".

This chapter is about what's happening physiologically when you're per-

forming, and how to make sure the balance is there when you need to make a withdrawal.

Let's get to it.

Tip 41: Turn Down the Noise

Your inner monologue is so condensed that it processes the equivalent of thousands of words per minute—far faster than you could ever speak out loud.

Most of it happens without you even noticing. It's just the background noise of being conscious. When you're performing, that can be an issue. You can't actively listen to your playing or the people around you when you're talking over yourself with a relentless stream of commentary, evaluation, and prediction.

Internal self-talk during performance is one of the most under-appreciated barriers to playing freely. But the problem isn't just internal. The world is louder than it's ever been. The World Health Organisation lists environmental noise as the second largest health problem after air pollution. We live in a constant state of overstimulation that most people don't notice because they've adapted to it. But adaptation isn't the same as immunity. Your nervous system is still processing it, whether you're aware of it or not.

A study by Timothy Wilson found that sixty-seven per cent of men would rather give themselves an electric shock than sit alone with their own thoughts for fifteen minutes. That tells you something about how uncomfortable silence has become, but it also tells you how powerful it can be.

The auditory nerve connects directly to the vagus nerve (the primary nerve of your parasympathetic/rest-and-digest system). That means reducing external noise in turn reduces internal noise. That only helps to a certain degree as a musician for obvious reasons, but if you can actively find a quiet spot or some time with your noise-cancelling headphones before a show or gig, then you can calm your entire nervous system and put yourself into the right state to take on stage with you.

Tip 42: Master the 3-Second Reset

You're on stage, and you've made a mistake... Now what?

Most musicians know they should "let it go" and "move on". But knowing it and doing it are completely different things. Your emotional response happens before your rational brain has any say in the matter. And if you don't have a trained response to interrupt it, the mistake can snowball. I remember at Hamilton back in 2017, when I first started working as a dep (sub) on the show, the original drummer gave me a heads up on how important it was on that specific gig to have this skill down, or else "the show could easily get the better of you". He was not wrong.

The 3-second rule is a time constraint for you to fall back on if the emotional response has kicked in. First, you acknowledge the mistake. Next, you release it. It's done. You can't change it. Finally, you refocus your attention back on what's happening now. And you do it all within three seconds.

In general, your audiences will notice maybe ten per cent of what you notice. They're not tracking your mistakes. They're taking in the overall experience. Most of the time, they have no idea that anything went wrong, and it was just a moment in time. But for you, the gap between what you felt and what they heard is almost always enormous.

Neurologically, any emotion (unless fed by additional thoughts) tends to subside within a couple of minutes. So the skill is in not feeding your response. And the three-second rule helps you to do just that.

The same principle applies at the macro level, too. A two-hour show is psychologically heavy if your brain carries the full weight of every mistake you make from bar one of the first song. Performance chunking (breaking the show into manageable segments) reduces cognitive load and lets you reset between sections. Thinking of a two-hour show as six twenty-minute blocks, each with its own beginning, middle, and end, is much easier to digest than as one single block of time.

Tip 43: Treat Stage Anxiety as Physiology, Not Character

By now, you know your nervous system runs the show.

When your brain interprets a performance situation as a threat, it triggers the fight-or-flight response. Blood flow shifts from your extremities to large muscle groups. Your prefrontal cortex gets bypassed in favour of faster survival wiring. Your breathing gets shallower. Your muscles carry tension. Your hands might shake, and you can't access the autopilot that usually runs your technique. If that happens, tell yourself you're not weak. You're just dysregulated. The distinction between the two matters, because, opposing what you may currently believe, the solution to this very psychological problem is, in fact, physiological.

This is where the identity-fusion idea we discussed in Tip 32 becomes practical. A 2018 study by Castiglione, Cardullo, and Rampullo in Europe's Journal of Psychology found that the gaps between a musician's "actual self" and "ideal self" predicted levels of performance anxiety, but only in professionals. The tighter the fusion between who you are and how you play, the greater the anxiety.

So, what can you do about it in the moment?

A 2017 study in Frontiers in Psychology used Acceptance and Commitment Therapy with vocalists and showed significant reductions in performance anxiety through an approach called cognitive defusion. Here, noticing "I'm having the thought that I'll mess up" rather than believing "I'll mess up" changed the relationship with the anxiety without trying to eliminate it. So the key is not to fight the anxiety. Just to change your relationship with it, although that can be easier said than done.

Then there's reappraisal. The physical symptoms of anxiety, including a racing heart, adrenaline surge, and heightened arousal, are physiologically identical to excitement. Research in the psychology of music has found that musicians who reappraised their anxiety as "readiness" rather than "fear" performed measurably better. The relabelling allowed them to work with the arousal rather than against it.

Nervous system regulation, self-distancing language, cognitive defusion,

and reappraisal are not optional extras or "nice-to-haves". They're the direct, evidence-based response to a problem that most musicians treat as a character flaw. It isn't. And treating it as one only makes it worse.

Speaking to a qualified professional is a route worth exploring if you are having issues here.

Tip 44: Learn to Play in the Third Person

There are two ways to experience your own performance.

First person (where you're inside it).

And third person (where you hear yourself as if you're sitting in the room watching).

Think about what it would mean to have an objective view of your playing every time you performed, as if you were a spectator of your own performance.

What would that do for your decision-making and the way you play?

There's a reason that recording yourself is such a powerful tool for improvement. It gives you that objective view. The thing is, when you perform, you're running multiple cognitive streams at the same time. Reading the music or recalling the arrangement. Monitoring your dynamics. Listening to the musicians around you. Keeping your physical mechanics in check. Making real-time musical decisions. And somehow, somewhere underneath all of that, emotionally processing the experience of being watched. The idea that you can hear yourself as if you're the audience is one that I've been trying to reverse engineer for years.

It turns out, I'm not the only one.

In 2008, Limb and Braun put jazz pianists in an fMRI scanner and asked them to improvise. What they found was that the part of the brain responsible for self-monitoring went quiet, while the part responsible for self-expression lit up. The inner critic turned off, and the inner voice turned on.

To observe yourself objectively, you'd think you need more monitoring, but the opposite is true.

When the prefrontal cortex quietens down, you develop the ability to move from being inside your experience to watching it. Psychologists call

it "decentering". A 2015 review in Clinical Psychology Review found that individuals trained in this skill had reduced emotional reactivity and improved cognitive flexibility under stress.

When I was in the most acute phase of my brain injuries, I couldn't rely on my conscious brain when it came to performing, and so, I had to find a way of bypassing my thinking brain to connect my hands to my ears. I found the best method to do this was through visualisation. I'd picture my ears and my hands being physically connected outside of my body, and over a period of around six months, I found I was able to "decommission" my thinking brain. It sounds pretty abstract, and in many ways it is. Although I don't need to play in this way anymore, I still find it a useful tool to tap into from time to time, and sometimes I'll experiment with toggling between playing "normally" and decentering just for fun.

When you're not used to it, it feels a little like you picked up the wrong kind of cigarette (for better or for worse), but keep at it, and it will become a sharp tool.

Chapter 10: Sustaining Your Career

> *"In the 1,526 singles matches I played in my career, I won almost 80%. What percentage of the points do you think I won? Fifty-four per cent."*
> ***— Roger Federer***

Roger Federer won twenty Grand Slam tennis titles over twenty-four years as a professional before his retirement in September 2022.

He was one of the greatest athletes in the history of any sport, and he won barely more than half the points he played.

If Federer lost forty-six per cent of his points, then perfection was never the game. The game was something else entirely. The ability to lose a point, then show up for the next one as if it hadn't happened.

As musicians, we feel compelled to give a hundred and ten per cent every time we perform. Our identity is tied to our craft, so anything less feels like we're not doing it justice. But the reality is that performing at a hundred and ten per cent leads to good days and bad days because of the sheer amount of energy you need to put in, and the lack of recovery that so frequently comes with the life of being a musician.

In a game where consistency matters, that's a problem.

It's much better to work at a hundred and ten per cent in your practice, so you can increase your capacity, and then perform at around ninety per cent of that capacity. That way, you've always got headroom. You're not opting to play worse. You're opting to play within yourself, and you work on pushing that ceiling in your own time.

This chapter is about the long game and how to build the kind of psychological durability that lets you sustain and thrive in your career.

Tip 45: Know the Signs of Burnout

Over the course of their careers, somewhere between sixty and seventy per cent of musicians will experience symptoms of burnout.

These symptoms include chronic fatigue, emotional flatness, loss of motivation, an underlying cynicism about the work that used to light you up, and the feeling that you're running on fumes but can't stop because of the next gig, tour, or contract.

And yet, somehow, nobody really talks about it.

The culture of "push through" runs deep in this industry (again, because of the innate link between ability and identity, and what that means in terms of self-validation). Although it's changing slowly, I still find this approach is celebrated, especially among particular groups of musicians.

These narratives aren't just unhelpful or outdated. They're genuinely dangerous because they reframe a real physiological and psychological issue as a character deficiency. When someone believes their burnout is a discipline problem, they do the worst thing they can do.

Push harder.

Burnout isn't a mental health issue.

It's not laziness. And it's not a lack of passion or weakness. Christina Maslach, the UC Berkeley psychologist who developed the Maslach Burnout Inventory (the most widely used burnout assessment tool in the world), defines burnout as three dimensions: emotional exhaustion, depersonalisation, and reduced personal accomplishment. All three show up in our culture with alarming regularity. A study published in Frontiers in Psychology found that performing artists scored significantly higher on all three dimensions than the general working population. It's a predictable result of sustained demand that exceeds your ability to recover. It's load mismanagement. A discrepancy between stress (as in "stressor", not just psychological stress) and recovery. As musicians, we rarely have the luxury of an off-season. There's always

another gig in the diary, another email that needs answering, and another rehearsal to get to.

The narrative of "push through" is based on broken thinking and outdated science.

Ben Stokes walked away from cricket entirely in 2021. He was England's best player, but he was having panic attacks. His dad had died of brain cancer the year before, and he'd spent years bottling everything up behind the bravado of being, in his words, "a big tough northern lad with tattoos." When he stepped away, there were people who questioned whether he'd be able to handle the pressure of coming back. But he came back, took the captaincy, and led England into probably their best era of test cricket in decades.

Sure, discipline matters, but discipline without recovery is just self-destruction.

As musicians, we run hot with our load management at the best of times, so our training should reflect that. Forcing yourself to train (or perform) on the edge of burnout is the worst thing you can do. Don't feel bad about rescheduling your training or even depping your gig. Increase the amount of recovery work instead. Go for a walk. Take a nap. Do whatever your body is asking for, rather than what your narrative says you "should" be doing. You'll progress faster by respecting the signal than by grinding for the sake of it.

If you're tired, you're not weak. You've just got a lot on your plate.

Know the difference.

Tip 46: Drop the Perfectionism

As musicians, we are natural perfectionists.

When I was at school, I wish someone had taught me the difference between having high standards and being a perfectionist, because there is a big difference between the two. One drives constant improvement. The other drives anxiety, avoidance, and burnout. Perfectionism is directly linked to identity fusion, as it leads people to believe their worth is contingent on flawless execution. In other words, it makes you interpret that gap between what you played and what you imagined as being a personal failure.

Carol Dweck's research on fixed mindset explains the mechanism.

When you believe your ability is a fixed trait (i.e. talent or an innate gift you were born with), every performance becomes a test of that trait. Mistakes don't reveal what to practise. They just reveal what you lack. Social media makes this a thousand times worse because the same mechanism is at play when you compare yourself to somebody else. They've got something you don't. They're better. More natural. It brings a sinking feeling because it feels like a failure of the self when you see someone with these "traits" doing a gig you wish you were doing. The funny thing is, these feelings can result in you avoiding the situations where growth happens because growth requires failure, and failure is painful when it's directly linked to your identity. Comparison is a nervous system response, not the truth (remember, your nervous system is the lens through which you view the world). When you feel inadequate, that's a threat-state activation, not an objective assessment. Your body is generating the feeling, and your brain is constructing the narrative to match.

The antidote to perfectionism lies in anchoring your self-evaluation to the work you're putting in rather than the outcome you're getting.

Rich Roll, the ultra-endurance athlete who went from out-of-shape alcoholic at 40 to one of the fittest men on the planet, credits his transformation entirely to this idea. He didn't set outcome goals. He just committed to showing up and doing the work, day after day, and let the results take care of themselves.

The Japanese have got it right when it comes to continuous improvement.

They even have a word for it.

Kaizen.

Kaizen is usually translated as "change for the better". Small, deliberate refinements applied consistently over time. That translation isn't wrong, but it's incomplete.

Japanese writing uses characters called kanji, where each character is a small picture that carries a meaning, and these characters can be combined to build richer ideas. The word kaizen is built from two of them. The first, kai, combines the pictures for "self" and "whip". This implies change that demands self-discipline. The second, zen, carries the meaning of sacrifice.

Put them together, and kaizen is closer to the discipline of "changing yourself in the service of something larger than yourself".

When Japanese manufacturers rebuilt their industries after the Second World War, companies like Toyota built production systems now regarded as among the most efficient in the world, not by tweaking machinery, but by cultivating individuals who showed up every day willing to refine themselves. The processes improved because the people did.

The maths backs it up, too.

If you improve something by one per cent per day, then, mathematically, you're not 365 per cent better at the end of the year. You're nearly 3,800 per cent better. So, it can be a powerful tool for reaching elite levels at anything that you decide to do.

And there's not an ounce of perfectionism in sight.

Tip 47: Build an Inner Scoreboard

Athletes are ahead of us as musicians in many ways, and this tip is no exception.

In sports, many athletes use a concept of an "inner scoreboard", which is a personal, internal measure of success based on their values, effort, and growth, rather than just the objective statistics like wins or losses. It might focus on resilience, discipline, character, and mental fortitude. In music, we don't have such objective statistics to say whether our performance was good or not, but in many ways, that's what makes having your own inner scoreboard so much more important. It gives you the equivalent of a compass to show you the right direction and help you muddle your way through your inevitable post-show analysis.

Michael Jordan's autobiography talks about competing against his own standard, not the opponent. Kobe Bryant worked in the same way. His "Mamba Mentality" was essentially an inner scoreboard system. He set specific execution targets before every game and evaluated against those, regardless of the final score. In both cases, their success wasn't anchored to the result. It was anchored to something they controlled.

As musicians, our only means of objectively knowing whether we did a good

job lies in our own very subjective and often incorrect internal narrative. Of course, external feedback is useful, but it should inform your own inner model, not replace it.

Without an inner scoreboard, you're less likely to be able to evaluate your performance objectively. I've played gigs where I was convinced I'd had a bad night, only to listen back and realise I'd played well. I've also played gigs that I thought went great, only to find the opposite. In both cases, my assessment was wrong because it was without a proper objective measure. This can be as macro or as micro as you want, but I find setting two or three mental (not musical) benchmarks can really help guide this process. Those benchmarks could relate to anything that you're working on... It might be posture-related, breathing-related, self-talk-related, or anything else. After the gig, you then evaluate against those criteria first. Then you factor in the external.

What this does is it gives you something stable to measure against, which, in such a subjective business as music, is a valuable thing.

Tip 48: Give Your Brain Reps Too

You wouldn't walk into a gym once, do a session, and expect to be fit for the rest of your life.

But that's quite often what people do when it comes to mental conditioning. They read a book, try a breathing technique for a day, maybe meditate a few times, and then when the results don't stick, they decide it doesn't work.

It does work. You just haven't put in the reps in the same way as you would in the gym.

Everything in this section of the book follows the same rules as physical training. It requires progressive overload and consistency. It adapts when you challenge it, and it decays when you don't. Your brain is not an exception to the principles of training, and, thanks to the wonders of the universe, it already contains everything it needs to develop. You just need to give it the right inputs and leave the rest to whatever you believe created the incredible architecture that lives between your ears.

Every time you repeat a mental skill, you're strengthening the neural

pathways associated with that skill. We call this "neuroplasticity". Dr Michael Merzenich, often called the "father of neuroplasticity", demonstrated through decades of research at UCSF that the brain's capacity to reorganise itself doesn't diminish with age. It just requires the right kind of input. His work showed that targeted, repetitive practice in any domain produces measurable structural changes in the brain, regardless of whether the person is twenty-five or sixty-five. This mechanism means you can physically change your brain, but there is a caveat. It takes time. Anything to do with nerves, the nervous system, and the brain takes far longer to adapt than muscles, so patience is key.

Because adaptation takes time and many repeated inputs, the goal is to develop a sustainable practice that you can maintain alongside everything else you do. This idea was demonstrated in all its frustratingly slow glory when I had my brain injuries. The recovery took three years (and counting). But that doesn't mean it doesn't work. And the beauty of life is that you have time.

When you are disciplined, in the first few weeks, you'll notice very little. A body scan might feel like guesswork, and you might be sceptical of the 3-second reset. That's normal. At this point, you're laying foundations, not building the house. But after a couple of months, you'll start catching yourself mid-thought instead of after the fact. After six months to a year of consistent practice, the tools will start to feel less like tools and more like instincts, and it will become more of a well-oiled machine. All of that is neuroplasticity doing its job.

We so often associate these traits with being intrinsic parts of our character. But they're not. They are just byproducts of your awareness and your ability to regulate and control the body's systems. As I said before, the universe has already given you everything you need to make the changes you want to make.

You just need to give your body and brain the inputs they need to thrive.

Mental Conditioning: Quick-Reference Checklist

The Operating System (Daily Awareness)

1. Remember: your nervous system is the lens through which you perceive the world. Everything else runs on top of it.
2. Know your three pathways of state change: Outside-in (music, cold, heat), top-down (meditation, visualisation, journaling), bottom-up (breathwork, walking, humming). Match the tool to the situation.
3. Distinguish between muscular fatigue and neural fatigue. If you feel sluggish, slow to react, or mentally foggy, it might be your neural budget, not your muscles.
4. When practice isn't fixing the problem, consider that your physiology might be getting in the way of your skill.
5. Protect your dopamine system. Audit your social media, sugar, caffeine, and alcohol inputs and notice what they're doing to your baseline motivation.

Building the Performer's Mind (Ongoing)

1. Put something between who you are and what you do. Your ability is not your identity.
2. Train discipline like a skill. Start your training week on Sunday, shrink the first step, and remember that 66 days is the average for a new behaviour

to become automatic.
3. Train your attention through your instrument. Pick a single element (dynamics, time, tone) and hold your focus on it for an entire practice session.
4. Develop your interoception. Do regular body scans (2 minutes, feet to head, notice what's there).

Before You Play

1. Match your warm-up to how you actually feel. Don't run the same routine regardless of your state.
2. If your body feels fine, have confidence in doing nothing.
3. Prime your brain before you play. Use the 4-minute neural warm-up sequence.
4. Visualise before important performances. Make it specific and sensory.
5. Know the conditions for flow.

In Performance

1. Turn down the noise. Find quiet time before a show to calm your auditory nerve and your nervous system.
2. Use the 3-second reset after mistakes: acknowledge, release, refocus.
3. Break long shows into manageable chunks.
4. Reframe anxiety as readiness.
5. Practise decentering.

Sustaining Your Career

1. Know the three dimensions of burnout: emotional exhaustion, depersonalisation, and reduced personal accomplishment.
2. If you're tired, you're not weak. You've just got a lot on your plate.
3. Drop the perfectionism. Anchor your self-evaluation to the work you're putting in, not the outcome.

4. Build an inner scoreboard. Set two or three mental (not musical) benchmarks before each gig and evaluate against them afterwards.
5. Remember that mental conditioning follows the same rules as physical training. Progressive overload, consistency, and patience.

IV

PART 4: ACTIVE RECOVERY

Introduction To Active Recovery

A Formula 1 pit stop lasts less than two seconds.

To the person watching from the grandstand, the car appears stationary, and very little seems to be happening. But in that short window of time, over twenty crew members are busy executing a perfectly rehearsed piece of choreography. It's so well honed that the margin of time that separates winning or losing an entire race is often smaller than the time it has taken you to read this sentence. The winning car is often decided not in a daring overtake on the straight or in a late braking into turn one, but in the pit when the car stops moving. It's the finest of margins.

Red Bull practices their pit stops every single day during pre-season. They employ performance coaches, physiotherapists, and data analysts whose sole job is to shave hundredths of a second off a process that already happens in the blink of an eye. Their front jacks alone cost a quarter of a million pounds. And the crew members who operate them train with the same focus and intensity as the drivers themselves.

What happens to a car in the pit during an F1 race is very similar to the idea of recovery for an athlete. For the elite level of the game, it's the most strategically important part of the bigger picture.

At the date of writing this book in 2026, I've spent the last three years going deep on the idea of active recovery through my own lived experience, balancing my recovery from two brain injuries with trying to protect (and build on) my ability to perform in the most full-on production I've ever been involved in. Hamilton, as I have said before in this book, is more like a sport than a creative endeavour. Physical conditioning matters. Recovery matters.

Mindset matters. Consistency matters. We work on the finest margins with perfect, crystal-clear in-ear monitoring. And when your entire world has been turned upside down by an invisible, life-changing physical injury inside the place where your mental health traditionally lives, you have to start looking at the world a different way to keep up with the expectations that have been placed on you.

That, incidentally, is how I found the multi-disciplinary world of active recovery. And it has improved my life in countless ways, whilst making me both a better musician and more consistent drummer.

It's a happy coincidence.

Recovery, to most people, means taking a nap, resting, watching Netflix, or going for a walk. Sure, that stuff can make a difference. But the biggest mindset shift is that an intelligent recovery strategy doesn't involve doing less. It involves doing more.

Effective recovery is how well your body can clear the chemical residue of stress. By stress, I don't just mean the psychological stress of being late for a train or a soundcheck. I mean stress, as in, "stressor". The idea of something adding a physiological, cumulative load to your systems. It means reverse-engineering how your body rebuilds, regulates, and prepares itself for the next demand you're about to place on it. And that's a very active thing. To do it, you must understand what broke down, why it happened, and what your body needs to put it back together, rather than just waiting for it to happen on its own by luck or pure chance. When your diary is jam-packed, and you can't afford to wait for luck or chance to do their thing, you need something better and more reliable.

You need to think more like a Formula 1 pit team. Sadly, though, when most people hear the word "recovery", they think of passive activities like sleep or just doing nothing. Sure, sleep is important. It's the single most important recovery tool you have. But as a musician, sometimes it's a luxury. Your schedule means late nights and early mornings, travelling, jet lag, and you have to be able to "turn it on" and give a world-class performance even when the only thing you can think of is just staying awake. This is where the idea of active recovery differs from that of passive recovery. It's an entire discipline

in its own right, but almost nobody in the music industry treats it like one. That's not a criticism of you, by the way, it's just an observation of the culture and system within which we work.

Think back to Part One, where we talked about the fact that we have no off-season, no pre-season, no periodisation, and no load management. Add to that the sheer number of shows we play in a year. This number dwarfs that of athletes in the world of sport, who also have access to a world-class training and recovery structure purely because the culture understands its importance.

Right now, you're likely recovering by accident. You sleep when you can. You rest when something hurts (if you can afford to). And you hope for the best in between. Without a recovery strategy that can bend and morph with the demands of the late nights, the travel, the hotel rooms, the inconsistent schedules, the financial stress of freelancing, the wild concoction of neurochemicals that still course through you at 2am when you need to be up and functioning again in 5 hours, and the general low-grade hum of never being able to fully turn off even for a holiday, then you'll never be able to master your physiology, perform at your best, or become an athlete in your own right.

This is crucial to understand if you want to unlock the next level of your playing career.

Those levels are only accessed based on your ability to perform consistently in every sense. That means raising the baseline of your worst performances on your most tired and depleted days, rather than increasing the level of a single one-off performance. And the only way to do that is by learning how to recover a depleted body.

Training, performing, and recovery exist on a continuum, and it's your job to unpick what system needs recovering, when it needs it, and how you're going to do it. That's the definition of an intelligent recovery strategy, and that's what you're going to start piecing together for yourself over the coming chapters.

Chapter 11: The Recovery Mindset

> *"It's not stress that kills us, it is our reaction to it."* — ***Hans Selye***

Hans Selye was an endocrinologist who discovered the body's universal stress response.

In the 1930s, working in Montreal, he was injecting rats with ovarian extracts, looking for a chemical nobody had identified yet. What he found instead was something far more important. Every group of rats showed the same symptoms. Enlarged adrenal glands, shrunken immune tissue, and stomach ulcers.

It didn't matter what he injected them with.

He tried different hormones, but the results were identical. He realised that the damage wasn't coming from the substance. It was coming from the stress of being injected. Selye had accidentally stumbled onto something huge.

His discovery went on to change medicine.

That same system is running inside you right now, and most musicians have no idea what state it's in. You can't manage what you can't see, and most of us have never been taught to look.

So, in this chapter, you'll learn to read the signals your body is already sending you, so you can better understand what's depleted, why, and what to do about it.

Tip 49: Balance Your Stress And Recovery

When your body experiences stress (whether from training, the anticipation of performing, or simply running late for the train), your physiology changes.

In the modern day, we live in a world of chronic, low-grade, relentless stress that builds up over time. This build-up is called allostatic load. It's the biological accumulation of residual tension as a result of exposing yourself to demanding situations. If not adequately recovered, the build-up of allostatic load can lead to digestive issues, headaches, poor sleep, irritability, brain fog, and many other things. And it's a precursor to chronic pain, illness, and even burnout.

When your fight/flight system is dominant, your body prioritises blood flow to the large muscle groups like your quads, glutes, lats, and pecs. It's an evolutionary response that we can't do anything about.

As performers who rely on fine motor control, this is a problem.

When blood flow is redirected away from the extremities and towards those larger muscles, the small intrinsic muscles that you use to play your instrument receive less oxygen, fewer nutrients, and slower waste removal. At the same time, your nervous system increases something called co-contraction. This means opposing muscles fire simultaneously, essentially working against each other. That means more force than the task requires, more tension through the forearm, and a higher metabolic cost for every note you play. So now you have tissues that are working harder and recovering more slowly.

This mechanism is responsible for many RSI issues that are often confused with overuse injuries. The key is to work with your physiology rather than against it. And a key part of that is offsetting the accumulation of allostatic load through targeted, active recovery.

The first step is awareness. You need to be super conscious of cumulative stress. Not just the obvious stuff like a bad gig or a long travel day, but the background hum of everything else that comes with the territory of being a musician. Don't get me wrong, the goal isn't to avoid stress. That's neither possible nor desirable.

The goal is to keep the balance from tipping too far in the wrong direction for too long. This balance is the engine of the entire Performance Conditioning ethos. Get it right, and the physical training, the mental work, and the recovery all compound.

Get it wrong, and you're pouring water into a bucket with a hole in it.

Tip 50: Track Your Metrics (But Don't Rely On Them)

"You can't improve what you don't measure."

This is a little saying I use with some of my clients, and we use it to narrow the focus on their goals. Quite often, these goals are tangible, such as achieving their first pull-up or hitting a specific body composition target. But sometimes, the goal is a little more intangible. I work with many musicians who tour relentlessly and want to find ways to ease the burden of the lifestyle on their physiology. They want to track their allostatic load, even though they don't realise this is the mechanism at play when they first come to me.

You can track the cumulative load of stress in a few ways, and the best approach is a combination of objective and subjective measures.

The single best objective measure of nervous system readiness is heart rate variability, or HRV. Without getting too deep into the science, HRV measures the variation in the time between heartbeats. A high HRV means your nervous system is flexible and well-recovered. A low one means it's under strain. Elite sports teams have been using HRV for years. A study published in the European Journal of Applied Physiology found that athletes who adjusted their training based on daily HRV outperformed those who followed a fixed plan, despite doing less total work. This essentially means that training by recovery is more effective than just "getting it done" for the sake of it.

The key to HRV is to track the trend, not any single reading. A single low day means very little. But a downward trend over a week can be indicative of something. You can track it with a smartwatch or a recovery-specific wearable like Whoop.

Resting heart rate is another useful marker. Like HRV, it's about trends. A rising resting heart rate over several days signals accumulated stress. It's not

the whole picture, but it's an easy-to-collect data point.

Then there's CO2 tolerance. This one is underrated. A simple test is to take a diaphragmatic breath in, let the breath all the way out, then hold your breath at the bottom of the breath with empty lungs. Then, pinch your nose shut and start a timer. Stop the timer when you get the first strong physiological urge to breathe in. This test isn't about muscling it until you're blue in the face. That's a marker of your mental strength, not your CO2 tolerance. You want to listen for the first sign your body gives you to breathe. At this point, stop the timer. The number of seconds you managed before this internal signal surfaced is your score. Anything above 40 seconds is elite. 25-40 seconds is good. 10-25 seconds is average to low. Anything below 10 seconds is low.

Your warm-up length is another diagnostic that I find really useful. How long it takes you to warm up before a gig or a training session tells you something about your recovery state. A healthy body shouldn't take long to warm up. So, if you find yourself regularly needing to coax your body into action, that's a sign.

On the subjective side, you could do a simple daily journal check-in. Rate your sleep, mood, energy, soreness, and motivation on a scale of 1 to 5 each morning. It takes very little time, and over the weeks and months, it will give you an incredibly clear picture of your trends, as it forces you to notice how you're feeling rather than just cracking on with the day and ignoring the signals.

One thing to watch for, though. It's possible to become almost obsessive about your recovery scores, your HRV trends, and your resting heart rate. I would say it's a great thing to track for 6 months to a year, but beyond that, the aim is to have pieced together how you're feeling subjectively in relation to the tangible data, so you can eventually back off the objective measures.

The danger is that you lose interoceptive ability and become over-reliant on outsourcing how you feel to technology, which in the long run will leave you up the creek without a paddle.

In the world of elite sport, they take this idea one step further by combining subjective and objective measures, which is a great middle ground between respecting the hard data and becoming overreliant on it.

I have built a similar tool for my clients that allows us to track their progression and physiological state with granular levels of detail, without me needing to intrude on their day. This kind of tool, as far as I am aware, is the first of its kind to be built specifically for the specific needs of the music industry. Data on its own is boring. But when you consider that it allows my clients to eliminate "bad" days when it comes to performing, and they can make far more intelligent decisions when it comes to their training, their recovery, and their gigging schedule, it starts to become a bit of a game-changer.

If you'd like to take advantage of this for yourself, or for more information on how it works and what it can do for you, please reach out to me at:

chris@performanceconditioning.co.

Chapter 12: Sleep

> *"Sleep is a criminal waste of time, a heritage from our cave days." —* ***Thomas Edison***

Thomas Edison believed sleep was a waste of time.

He claimed he never slept more than four hours a night, called anyone who needed more lazy, and held job interviews at four in the morning to prove the point. The incandescent light bulb that he invented didn't just extend the working day. It severed the relationship between darkness and rest that every human body had evolved around for hundreds of thousands of years.

Before Edison, the night was non-negotiable.

After him, it was optional.

But his employees told a different story. He had napping cots scattered throughout his labs, his office, and his library. He napped constantly. The man who did more to disrupt human sleep than any person in history couldn't actually function without it.

Sleep is a big problem for musicians.

Late finishes, early calls, travel through time zones, and a culture that rewards pushing through. It's the first thing that gets sacrificed, and often the last thing that gets taken seriously. But your body does the majority of its repair work while you're asleep, and when you cut it short or compromise its quality, you're not just tired the next day. You're actively undoing the work you put in the day before.

This chapter isn't about telling you to sleep more. It's about understanding

what sleep actually does, and getting more out of the sleep you're able to get.

Tip 51: Understand What Sleep Actually Does

Your sleep normally happens in two stages.

In the first half of the night, the aim is to be in deep sleep. This is where physical recovery happens. Growth hormone (which is essential for muscle repair, tissue regeneration, and immune function) peaks during this phase of sleep. That means it's vital for physical recovery related to training and performance.

The second half of the night is dominated by REM sleep. This is where mental recovery takes over. During REM, your brain processes emotions, consolidates skills, and makes the creative connections that often show up as insights or breakthroughs the following day. If you've ever woken up and suddenly understood something that was eluding you the night before, that's a sign of REM doing its job. If you cut this process short, your brain suffers, your emotional regulation takes a hit, and your ability to learn and retain new material decreases.

As a musician, it's vital that you get both kinds of sleep, even though it can be hard to protect this time because of the obvious need to work late into the evening.

Contrary to popular opinion, you can't "make up" for lost sleep at a later date. It sadly doesn't work like that. You can, however, bank sleep in advance if you know you're going to lose sleep in the near future. This is useful to know if you have any long-haul flights coming up, or if you've got a particularly late gig one day.

Tip 52: Protect The Hour After Your Show

How you spend your time in the 60 to 90 minutes after your gig is really important for protecting tomorrow's energy.

When you perform, your sympathetic nervous system is running hot. Adrenaline and cortisol are elevated. Your heart rate is up. Your brain is

working overtime. And when you get to the end of your show, that arousal doesn't just disappear. Your body needs time to return to baseline, and the choices you make during that window either help it or work against it.

In this tip, I'm going to walk you through four areas to be mindful of.

Bright Lights

Bright lights signal "daytime" to your brain. They suppress the production of melatonin, which is the hormone that initiates sleep. If you come off stage and walk straight into a brightly lit dressing room, or a brightly lit bar, or you get in the car and drive home with the overhead lights on, you're telling your brain that it's the middle of the day. Your melatonin release then gets delayed, and when you eventually get to bed, you'll find it hard to get to sleep, regardless of the fact that you might be exhausted. To counter this, either avoid bright lights or dim them where you can. If you have no control over the lighting, put on a pair of orange-tinted glasses. You might look like Elton John, but they work.

Caffeine

Caffeine can hijack the quality of your sleep. We'll get more into this in the next chapter, but it's important to address specifically in relation to your sleep performance. Caffeine has a five to seven-hour half-life. That means if you have a coffee at 2pm, half of the caffeine is still in your system at 9pm. If you have one at 4pm, you're carrying a meaningful amount of stimulant in your blood until nearly midnight. So, if you're one of those people who has a coffee before a show to "wake up", you might need to factor in the knock-on effect that has on your sleep that night.

Externalising Your Thoughts

If you're the sort of person who goes to bed with a mind full of thoughts and ideas, you might benefit from doing a pre-sleep brain dump. I do this quite regularly with writing ideas, research, and thoughts about specific issues my clients are having. Writing them down on paper or in your notes app on your phone gives your brain permission to let go of them for the night. The act of

externalising gives your brain back just a little bit of headroom, and that can be the difference between falling asleep and still being awake at 2am.

Phone Etiquette

Quite simply, put your phone down. Scrolling late into the night through your social media, emails, and news apps is like the modern version of having a post-show drink. It feels completely harmless, but cumulatively, it's doing quite a bit of damage.

A Harvard Medical School study found that reading on a phone before bed delays the onset of melatonin by up to ninety minutes compared to reading a physical book. That's an entire sleep cycle's worth of melatonin suppression every single night. Over a week, that delay compounds into hours of degraded sleep quality.

Don't get me wrong, I'm not going to tell you to never look at your phone after a show. That's unrealistic. But I am going to tell you that every minute you spend on that screen in the 60 to 90 minutes before sleep is directly competing with the recovery that your body desperately needs. If you can replace even half of that screen time with something that helps you downregulate (like dim lighting, a body scan, some gentle stretching, a book, or silence), you'll notice the difference within days.

Tip 53: Morning Sunlight Sets Tonight's Sleep

It's well known that your body runs on a 24-hour internal clock called your circadian rhythm.

But what's lesser known is that your body runs multiple clocks in tandem.

There's a master clock in the brain called the suprachiasmatic nucleus. That's the one most people are referring to when they talk about their circadian rhythm. But almost every organ in your body has its own clock running alongside it. Your liver has one. Your gut, your heart, your kidneys, your muscles, your skin. They're all ticking away on their own 24-hour cycles, governing when they're primed to work and when they want to rest.

The master clock coordinates them. And the single most powerful input for

setting that master clock is light.

Specifically, morning light.

When you expose your eyes to direct sunlight within the first hour of waking, it triggers a cascade of signals through the retina to the suprachiasmatic nucleus, which sets the timer for tonight's melatonin release. That timer runs for roughly 14 to 16 hours. So, if you get sunlight at 7am, your melatonin starts to rise between 9pm and 11pm. If you don't get that morning light, the timer doesn't set properly, and your melatonin release is delayed, or becomes more irregular. It's not a case of needing to stare directly at the sun. Just getting 10 minutes of direct sunlight on your face within an hour of waking up, even on a cloudy day, will do the trick.

For musicians, this is complicated by something called social jet lag.

Social jet lag is the mismatch between your biological clock and your performance schedule. If your body wants to wake up at 7am but your show finishes at 11pm and you don't get to bed until 1am, your social schedule is fighting against your biology. And it's not just your brain clock that suffers. Those peripheral clocks in your liver, gut, and muscles respond to different cues, such as when you eat, when you move, and when your body temperature changes. So when you're eating at 1am and sleeping until 10am, your brain might adjust to the new pattern, but your organs can take days to catch up. You end up out of sync with yourself.

It's important to look out for that mismatch, as it is also a chronic stressor that compounds over time, contributing to allostatic load.

For us, this is just an occupational hazard.

And before you say there's nothing you can do, I've been trying to find a way around this for years. The key is to mitigate the damage by staying consistent with what you can control. Morning light. A consistent sleep environment with blackout curtains, a cool room, and, as much as possible, the same setup whether you're at home or on the road. At the end of the day, your brain responds to environmental cues.

If you can create a consistent set of cues that signal "it's time to sleep", then your body will start to respond to those cues regardless of where you are.

Chapter 13: Caffeine, Sugar & Alcohol

> "There it is, right in the middle of the word intoxication, hidden in plain sight: toxic." ***— Michael Pollan***

Michael Pollan is an American journalist and author, and has done some of the most influential work on food and consciousness of his generation.

He quit caffeine while researching his book This Is Your Mind on Plants, and made some surprising realisations. At first, the withdrawal was brutal and riddled with headaches, brain fog, and a flatness to his thinking. His default state, the one that he (like many of us) had been in for so long, and the one he thought was just "him", was to be caffeinated up to the eyeballs.

When he drank coffee again three months later, he described it as one of the most powerful drug experiences of his life. Not because the coffee was strong, but because he finally felt what it does from a baseline state.

At the point of writing this book in 2026, my experience mirrors that of Pollan's. My brain injury diet stipulates very low caffeine, with a total avoidance of dark, caffeinated drinks. As a result, I haven't had a coffee since January 2023. I used to live on the stuff. I thought it was a requirement to function. But it turns out I have far more energy and clarity of thought without it in my life.

If you're drinking three coffees to get through a show day, you've probably never met your own baseline either. And caffeine is just the start.

I'm not going to tell you to drop your morning coffee. Rather, this chapter looks at the three substances musicians lean on most, what they're actually

doing to your body, and how to use that knowledge to make better choices that will serve you in the long run.

Tip 54: Consider Life Without Caffeine

If you'd told me back at the end of 2022 that I'd never drink another coffee, I'd have likely laughed at the idea.

With a full-time gig, two small kids, and an average sleep time of around five and a half hours, coffee was a cornerstone of my day. I was entirely reliant on it and genuinely believed it was giving me energy.

Many musicians are the same in that respect.

I had to give up almost all caffeine as a result of my brain injuries and haven't had a coffee since the beginning of 2023, but the funny thing is that I've got more clarity of thought and energy now than I have in years.

It turns out that caffeine isn't quite the fix to your energy problems that you were hoping for.

Here's how it works:

Adenosine is a naturally occurring chemical in your body. It builds up throughout the day and makes you feel progressively more tired.

Think of it like sand filling an hourglass. From the moment you wake up, adenosine starts accumulating in your brain, grain by grain. The more that piles up, the heavier the pressure to sleep becomes. By the end of the day, the glass is full, and your body is telling you, unambiguously, that it's time to rest.

Caffeine doesn't empty the hourglass. It just hides it. The caffeine molecule is shaped closely enough to adenosine that it can slot into the same receptors in your brain, but instead of activating them, it blocks them. The sand is still piling up. You just can't feel it anymore. When the caffeine wears off, the accumulating adenosine rushes into the newly available receptors, confusing your body and crashing your system. That crash triggers a sympathetic response, throws you out of balance and messes with your mood, sleep, and quality of energy for the rest of the day.

At that point, most of us reach for another coffee.

The confusion is that the crash isn't a result of the coffee wearing off. It's a

result of your energy systems finally being able to communicate.

If you rely on caffeine to get through your days, there's more at play than you might think.

Caffeine also triggers the release of noradrenaline, which creates micro-tension throughout the body. That micro-tension affects the breathing muscles, altering blood chemistry and disrupting your wider nervous system balance and brain state. This disrupted balance creates a vicious cycle where you need more caffeine to function, which creates more tension, which disrupts the chemistry further, and so on.

In the mental conditioning section of this book, we discussed how a quieter prefrontal cortex gives you access to flow state, better feel, less self-monitoring, and more creative freedom. Caffeine does the exact opposite of these things. It increases self-monitoring and makes you more analytical. It chemically blocks the very state you need to perform at your best.

So, what should you do instead?

I'm not going to tell you to quit coffee tomorrow.

But what I will say is to pay attention to the correlation between your caffeine intake and your energy quality, sleep, mood, and performance quality. Be honest with yourself about whether the coffee is really helping, or whether you're just managing the withdrawal and the adenosine influx from the last one.

If you want to experiment, try tapering down over a few weeks. Swap one coffee for a half-caf or decaf. Then swap another.

There are some great decaf options on the market if you know what to look for.

As a general rule, when you're out and about, avoid ordering a decaf coffee from a coffee shop that doesn't have two grinders. If there aren't two grinders, they're using pre-ground coffee, which, for me, is a non-starter, as it likely means it's stale. Many coffee shops burn their coffee, and decaf needs to be brewed at a slightly lower temperature than regular coffee, which they're possibly already ruining. In addition, baristas normally eyeball their scoops without a set of weighing scales, which means the ratios are completely wrong. So, the result of not having a second grinder is that you end up with a stale,

burned coffee that hasn't been made according to any recipe. If you like a good coffee, you're better off saving your money. If you're buying for home, buy whole beans where you can, and go for either a Swiss Water or Ethyl Acetate (sugarcane) decaffeinated bean.

Decaf drinkers are the purest of all coffee drinkers. We don't drink it for the effect. It's all about the taste. If you purchase the right beans and spend a minute working out how to brew decaf properly, you'll find you can make coffee that is every bit as good as the "real thing". And you'll find you start to sleep better, wake up feeling more awake, and recover faster, with a lower baseline level of tension throughout your body, too.

Tip 55: Know The Cost Of Alcohol

Alcohol is deeply embedded in our industry.

It's how we socialise, decompress, celebrate... In fact, I can put my entire career down to being in the right pub at the right time. So, for the purposes of progressing your career, alcohol does deserve a place here, but it's worth approaching it with caution if you're trying to become an athlete in your own right.

Alcohol is a sedative. Yes, it can help you fall asleep faster. But once you're asleep, that's where the benefits stop. It tanks your deep sleep, which (as we've already learned) is where physical recovery happens. It fragments your REM sleep, which is where mental recovery and skill consolidation occur. It spikes cortisol in the second half of the night, which is the opposite of what your body needs. And it dehydrates you, which compounds every other problem.

When you've done a gig, your system is stressed, your muscles need repair, and your brain needs processing time. Your sleep and recovery are incredibly important. And just one post-show drink does more measurable damage to your recovery than going to bed an hour later than normal. That means you are, in effect, losing two hours of sleep for a single post-show drink. One hour for the time it takes to have the drink. And one hour for the effects of that drink.

The cultural aspect is what makes this so difficult.

It's not just about the physiology. It's about the fact that the post-show drink is often the only social time we get with each other, and it's where relationships that form the backbone of entire careers are built. Saying no to a drink can feel like saying no to all of that.

Using it as a mechanism for career progression is one thing, but using it as a coping mechanism is another. A study in the journal JMIR Mental Health found that seventy-three per cent of professional musicians reported using alcohol as a crutch for performance-related stress. When you combine that statistic with the sleep research showing that even moderate alcohol consumption reduces restorative sleep by up to thirty-nine per cent, you start to see the scale of the recovery deficit in our industry.

There's a reason why the highest-performing athletes in the world are increasingly moving away from alcohol entirely. And it's filtering through to the general population. The world's biggest beer, wine, and spirits producers have collectively lost $830B (that's $830,000,000,000 if you want to see the scale of that number with all its zeros!) between 2021 and 2025.

I'm not saying never drink. I'm just saying it's good to know the cost on your systems. With that knowledge, you can make the choice with your eyes open, rather than defaulting to the expectation of drinking because everyone else is.

Tip 56: Limit Refined Sugar

Refined sugar does so much more than just spike and crash your energy.

It increases water retention, promotes fat storage, feeds inflammation, and when you consume it regularly, it destabilises your recovery systems across the board. Paired with the fact that it's so readily available, it's one of the hardest areas of nutrition to crack.

It's easy, when you're working long hours with teaching, rehearsals, sound checks, and gigs, to fall back on a sweet treat as a tool to get you through your day. Go to any petrol station, airport, or venue green room, and the default options are almost always sugar-heavy, ultra-processed, and engineered to be as palatable as possible. If you're trying to limit your sugar intake, then

you're double-screwed, because not only do you have to plan and prepare your own food in advance (which takes time most of us don't have), you also have to resist the constant pull of the easy option when it's staring you in the face.

It requires the willpower of a monk.

I've been on a mission to cut refined sugar from my diet for the last few years, and every time I think I've cracked it, something happens that sends me back to square one. That said, when you manage to cut it down to a minimum, the difference is remarkable. You have more energy. You'll be in a happier mood. You'll have clarity of thought. Less bloating. Better skin. And, crucially, better recovery, because your body isn't spending resources dealing with the inflammatory after-burn of your mid-morning yum-yum habit.

Don't put pressure on yourself to be perfect. It's a bit like the point above on alcohol. If you can be more mindful about how much sugar you're actually consuming (and the correlation between that and how you feel), the easier it becomes to start making different choices.

If you want a starting point, try using a food tracking app to keep tabs on how much you're eating. You may well be surprised by the number, and that surprise alone can be enough to shift your behaviour.

Chapter 14: Nutrition, Hydration & Supplementation

> *"If the soldier is to be kept fit on active service, he must depend chiefly upon Doctor Diet."* ***—Alexis Soyer***

Alexis Soyer was Victorian London's most famous chef.

Head of the Reform Club kitchen, and a showman in a lavender velvet suit, he was, without a doubt, the last person you'd expect to find on a battlefield.

But in 1855, Soyer travelled to the Crimean War and discovered something eye-opening.

British soldiers weren't just dying from Russian bullets. They were dying from their own cooking. Each man was handed a pound of raw meat and a pound of bread and left to prepare it himself. Most had no idea what they were doing. Undercooking was rampant, and food poisoning tore through the ranks. At one point, fewer than a third of the soldiers were fit to fight.

The enemy had very little to do with this self-inflicted disadvantage.

Soyer redesigned the entire system.

He invented a portable field stove that could feed fifty men in any weather, and trained soldiers as regimental cooks.

The flamboyant chef in the lavender suit turned out to be one of the most important people in the war. Not because he could fight. But because he understood that nothing works without the right fuel.

I'm not saying that being a musician is equivalent to being at war. Far from

it. But the point stands that it's possible to achieve very little if you don't first get your basic nutrition on point.

These days, the daily battle exists in the mind. Ultra-processed foods, high in sugar, additives, and goodness knows what else, are pushed on us at every turn. It's a battle against you and the food industry marketing juggernaut.

Realistically, who do you think is going to win unless you have a simple, fool-proof strategy to fight back?

Fuelling yourself efficiently to do what you do to the best of your ability should be a fundamental focus you have the luxury of choice about, but the reality is that we frequently have less than a few good options on the table. Late-night service station stops, airports, train stations... Food on the go is the anti-performance food. And it's often all we have available.

Heads up...

I'm not going to give you a meal plan. I find they can become restrictive quite quickly when your diary suddenly changes, and you find you haven't had time to prep, or if the options around you don't seem to have the thing you're looking for.

Instead, in this chapter, we will cover the simple principles and practical concepts for nutrition, hydration, and supplementation that work both for my clients and me in the pursuit of our goals, so you don't get caught short in and around your work schedule.

If you can internalise these principles and apply them more often than you don't, you'll notice a significant difference in your recovery, your energy, your performance, as well as your body composition.

Many of us have aspirations for how we look in the mirror, and the fitness industry has put this front and centre of its marketing engine. The reality is, if you train regularly and you eat like a grown-up eighty per cent of the time, you'll find yourself reaching these goals. But the problem most people find comes down to motivation and discipline. It turns out that these aesthetic goals aren't enough on their own to keep most of us in the gym and out of the sweet aisle in the local supermarket. You need a deeper reason for that. But you're lucky, because you already have that reason. The fact that you are reading this book means you are developing a relationship with your

instrument and career that is deeply entwined with your physiology, and this relationship is far more powerful than the number on a set of scales. My aim is to help you move in a way that is directionally correct in terms of your physical and mental conditioning, and it just so happens that the benefits extend to fat loss and muscle gain as a by-product.

Without further ado, let's get into the tips.

Tip 57: Eat To Recover

Protein-rich. Fibre-rich. Antioxidant-rich. Colourful. Single ingredient. Fresh. Unrefined. Very low sugar. No (or very low) alcohol or caffeine.

These are my post-brain injury diet guidelines. It's also one of the best diets from a performance perspective, too.

But it's a frustratingly difficult list to live by.

The most readily available food is none of these things. Most food that's easy to grab when you're in a rush, on the road, or backstage at a venue is almost always processed, sugar-laden, and depressingly empty of nutritional value.

The things that serve both your energy and your recovery require preparation, planning, and willpower.

In an ideal world, that means shopping, cooking, and packing containers. But the reality is that you may not have the time to do this if your schedule is taking you all over the place.

So let me break down why each of these things matters, and then you can make informed decisions when you're standing in a service station at midnight trying to find something that won't undo the work you've put in over the rest of the day.

Protein-rich.

Protein is the raw material your body uses to repair and rebuild tissue. Every time you perform or train, you create micro-damage in your muscles, tendons, and connective tissue. Your body can only rebuild and recover if you give it the raw materials it needs to do the job. You'll find a full protein source cheat

sheet with grams per 100g at the end of this chapter.

Fibre-rich.

Fibre feeds your gut microbiome, and your gut microbiome influences far more than just digestion.

It plays a direct role in inflammation, immune function, mood, and even how well you sleep. It also does great things for your blood sugar by slowing the absorption of sugar into the bloodstream, keeping your energy stable rather than spiking and crashing. There's a fibre source cheat sheet at the end of this chapter, too.

Antioxidant-rich.

Training, performing, and living with the chronic, low-level stress of being a musician contribute to the production of reactive oxygen species.

These are chemical byproducts that, on a biological level, cause oxidative damage (rust) to your cells. Your body has a defence mechanism for this, but when your allostatic load gets high, the damage can outpace the repair. Antioxidant-rich foods give your body the tools to neutralise that damage. Think berries, dark leafy greens, dark chocolate, turmeric, and anything with a deep colour.

The key is getting them from whole foods rather than supplements.

I'm always hot on this area with my clients. Many people who train also have a body recomposition goal of some kind. That normally means creating a calorie deficit at periodic intervals. The problem is that when you create a deficit, most people are only concerned about their macros (protein, carbs, fats), which takes the focus off their micronutrients. When you're already in a calorie deficit, this adds an even higher likelihood of falling short of your micronutrient goals.

This point is certainly worth watching out for.

Colourful.

As we alluded to above, micronutrients don't get the attention they deserve in mainstream fitness culture.

Different colours mean different micronutrient profiles. Dark greens are high in folate, iron, and magnesium. Purple and blue foods contain something called anthocyanins, which are anti-inflammatory compounds.

Aim for variety across the week, and you'll cover all bases without needing to think about individual vitamins.

Single ingredient.

I love simplicity, and this is about as simple a filter as you can get.

If you pick something up and it has one ingredient, your body knows exactly what to do with it. The further you get from single-ingredient food, the more your body has to work to process what you've given it. Additives, preservatives, emulsifiers, and industrial seed oils all add to the burden and contribute to the low-grade inflammation that slows recovery.

If it has an ingredients list longer than a sentence, maybe think twice.

Fresh.

Nutrient density degrades over time.

The vitamins and minerals in fresh foods start to break down from the moment they're harvested. Going for frozen is a great second option, as they're often frozen at peak ripeness, which locks in their nutritional value, but anything that's been sitting on a shelf for weeks or months isn't quite as good.

The fresher the food, the better.

Unrefined.

The refining process removes the functionally useful parts of food.

White rice has had its fibre and bran removed. White bread has been stripped of its germ, which contains B vitamins, vitamin E, healthy fats, and minerals like zinc and magnesium. Refined sugar has had every ounce of its nutritional value removed, leaving nothing but a fast-acting energy spike.

Unrefined alternatives like brown rice, wholegrain bread, and whole oats still contain their nutritional benefits.

Making the switch is a small change to make with a big payoff.

Very low sugar.

We've already covered it, but it's a big part of eating with a focus on recovery. Sugar drives inflammation. It's addictive. And the biggest challenge is that it's in almost everything, including things you wouldn't expect. Pasta sauces. Soups. Salad dressings. Sauces. Baked beans. Bread. The list goes on.

The best advice is to check the label, and if it has more than a few grams of added sugar per serving, then you can assume it's working against your recovery.

No (or very low) alcohol or caffeine.

Again, we've covered it already, but it still deserves a mention.

Alcohol disrupts your sleep architecture even in the smallest amounts. You might fall asleep faster, but you'll get less deep sleep, less REM, you'll wake more, and it impairs protein synthesis, which works against the structural repairs your body needs to do while you're asleep.

Caffeine is trickier because it has genuine performance benefits. But its half-life is five to seven hours. A study in the Journal of Clinical Sleep Medicine found that a moderate dose of caffeine taken six hours before bed reduced total sleep time by 45 minutes and cut deep sleep levels even when the subjects of the study felt they had slept fine. So, if you're going to use caffeine, front-load it into your day. Morning only.

Tip 58: Time Your Protein Around Your Training Sessions

If there's one macronutrient that matters most for recovery, it's protein.

If you've trained today, aim for 20-40 grams of protein within around two hours of your session. The window isn't as narrow or as critical as the supplement industry would have you believe, so there's no need to jump the lights in a rush home from the gym to "maximise the gains", but it does matter, especially if you're training regularly or performing in a particularly physically demanding show.

Carbohydrate replenishment matters too, and it's something a lot of people either overlook or misunderstand. Glycogen (the stored form of glucose in

your muscles that your body uses for energy) gets depleted during physical activity. If you don't replenish it, you'll start the next day with a deficit. That deficit shows up as sluggishness, poor endurance, and a feeling of heaviness. A balanced meal with protein and carbohydrates after a show or training session is one of the simplest and most effective recovery strategies you can adopt.

Then there's inflammation.

Certain foods actively reduce inflammation. These include fatty fish like salmon and mackerel, berries, leafy greens, turmeric, and olive oil. On the other hand, other foods promote it. These include refined sugar, processed seed oils, trans fats, and excessive alcohol.

You don't need to memorise the lists. You need the general principle in your mind. If it looks like it came from the ground or sea, it's probably helping. If it came from a factory and has ingredients you can't pronounce, it's probably not.

A study published in the British Journal of Nutrition found that adherence to an anti-inflammatory diet over 12 weeks was associated with a twenty per cent reduction in something called C-reactive protein, which is a key marker of systemic inflammation.

This is not a small thing.

In fact, Novak Djokovic famously overhauled his nutrition in 2011 after discovering he had a gluten sensitivity. He went from being a top-five player who couldn't quite close the gap to dominating the sport for the next decade. Sure, you probably can't put his entire success down to this nutritional change, but the small changes stack up quickly to create something meaningful.

And the same applies to you.

What you put in directly affects what you get out.

Tip 59: Feed Your Gut, Not Just Your Muscles

The idea isn't to turn you into a nutrition obsessive.

It's to help you understand that your gut isn't separate from your recovery. It's part of the same system. When you feed it well, the downstream effects on your energy, mood, immune resilience, and your ability to recover from the

demands of your career are tangible and measurable. If you're looking for a few more things to add to the mix, consider prebiotic foods like garlic, onions, leeks, asparagus, and oats. These foods feed the good bacteria that are already living in your gut. You could also look at fermented foods like yoghurt, kefir, sauerkraut, and kimchi. These introduce beneficial bacteria directly.

Nutrition is one of those things that we often take for granted or oversimplify into just protein, fats, and carbs. Or we just don't think about it through the lens of recovery.

At the end of the day, you need to find what works for you with a degree of mindfulness, and I hope the last few tips help to point you in the right direction.

Tip 60: Add Electrolytes, Not Just Water

Water follows salt.

That's where electrolyte supplementation comes in. Electrolytes are the charged minerals (primarily sodium, potassium, and magnesium) that control how water moves in and out of your cells. Without them, you can drink plenty of water and still be functionally dehydrated, because the water isn't getting to where it needs to go.

Two per cent dehydration reduces attention, working memory, and reaction time. For musicians, this is super important given that we do physical work, often work in hot venues, and deal with a lot of travel, which, in and of itself, is dehydrating, both because of limited access to regular fluids and the low humidity levels associated with flying.

When you sweat, you're not just losing water. You're also losing the vital minerals required for adequate hydration. It's an easy issue to fix with a simple electrolyte sachet (make sure it's not loaded with sugar), or, if you don't have that to hand, you could mix a pinch of salt and the juice of a lemon into a pint of water.

Tip 61: Know Which Supplements Are Worth Taking

The supplement industry thrives on over-complication, so let's keep this as simple as possible.

The vast majority of supplements are unnecessary if your nutrition is good. Food first. That's the rule. No magic pill can replace solid sleep and nutrition, as much as the marketers of some of these huge companies would like you to believe. That said, there are a few gaps that are difficult to fill solely through diet.

Vitamin D: Forty to sixty per cent of UK adults are lacking in this by the end of the winter. This impacts energy, mood, recovery, and illness risk. If you're not supplementing through the winter months, then you're almost certainly deficient. If you're lucky enough to live in a sunnier climate, make sure to make the most of it.

Omega-3 fatty acids: Another area where most people are chronically low. It's essential for nervous system function. DHA (one of the two main omega-3s) is the main structural fat in your brain. If you're not eating oily fish two to three times a week, a supplement can help to plug the gap. It may not be as easily absorbed by your body, so natural food sources are always best, but a supplementation plan is worth exploring if you feel you don't get enough.

Creatine: Creatine is one of the most well-researched supplements, with over 500 peer-reviewed studies supporting its efficacy and safety. A study in Psychopharmacology found that creatine supplementation improved cognitive performance under sleep deprivation. It's particularly beneficial for women, who tend to have lower baseline creatine stores, and even more so for women around the age of perimenopause. In lower doses (3-5g per day), it saturates your muscles, meaning you'll be able to achieve an extra couple of reps per set in your training. This may sound insignificant, but it's where most of the adaptation happens. In higher doses (10-20g per day), you'll find the cognitive benefits.

Magnesium: There's more to magnesium than meets the eye. There are different forms for different purposes: Glycinate for sleep, citrate for gut health, and threonate for brain function. If you're looking to improve your recovery, taking glycinate before bed is a good place to start.

Ashwagandha: This is a class of herb that helps your body's stress response system recalibrate. It doesn't just do one thing, either. If your cortisol is chronically elevated, it will help to bring it down. On the flip side, if your cortisol levels are depleted, it will help to bring them back up. One caveat on this point: It can interact with thyroid medication, so if you're on anything for your thyroid, check with your GP first.

Tart cherry extract: Tart cherries are one of the only natural food sources of melatonin, and they've been shown to improve sleep quality and duration. A 2018 study in the American Journal of Therapeutics found that tart cherry juice increased sleep time by an average of 84 minutes in older adults with insomnia. On top of that, they're a potent anti-inflammatory. Studies show reduced muscle soreness and lower inflammatory markers after exercise. In this research, the extract was taken twice a day (once in the morning and once in the evening). For a musician who needs better sleep and faster physical recovery, it ticks two boxes at once. It's definitely worth exploring.

Zinc: Important for immune function and hormone regulation. Musicians on the road are constantly exposed to crowds, airports, late nights, and stress, all of which suppress immunity. Zinc deficiency is common, and the symptoms (fatigue, brain fog, getting ill more often) are easy to write off as just being tired from touring. It's worth getting tested, and easy to supplement if you're low.

Iron (for female musicians): Menstruation increases your iron needs, and deficiency causes fatigue that's often attributed to overtraining. If you're a woman and you're feeling persistently tired despite enough good sleep and nutrition, get your iron levels checked.

Collagen peptides for tendon and joint recovery: The evidence is emerging and promising, particularly for connective tissue repair. If you jump around a lot on stage or run a lot, you may want to explore supplementation in this area.

That's it!

It goes without saying that all of this is context-dependent, and of course, consult your GP for specific advice.

Either way, I highly recommend having your bloodwork done regularly so you can keep tabs on any areas that may need additional supplementation or lifestyle adjustments to bring them into range. These tests are worth their weight in gold, and I feel like many people try to guess their way through this area.

There really is only one way to know, and that's to get tested and review your results with a doctor or qualified professional.

Nutrition Cheat Sheets

These are the quick-reference lists I mentioned back in Tip 57. Keep them on your phone or stick them on the fridge. When you're standing in a supermarket or scanning a menu, they'll help you make better choices without having to think too hard about it.

Protein Sources (g per 100g)

1. Whey protein powder: 75–85g
2. Plant protein powder: 70–80g
3. Chicken breast (cooked): 31g
4. Turkey breast (cooked): 29g
5. Steak (sirloin, cooked): 27g
6. Lean beef (5–10% fat): 26g

7. Tuna (canned, drained): 25–26g
8. Tuna (fresh): 23–25g
9. Prawns: 20–24g
10. Salmon: 20–22g
11. Cod / white fish: 18–20g
12. Tofu (firm): 14–17g
13. Eggs (whole): 12–13g
14. Cottage cheese: 11–12g
15. Edamame: 11g
16. Skyr: 10–11g
17. Greek yoghurt (0% fat): 10g
18. Lentils (cooked): 9g
19. Chickpeas (cooked): 8–9g
20. Black beans (cooked): 8–9g

Fibre Sources (g per 100g)

1. Chia seeds: 34g
2. Ground flaxseed: 27g
3. Almonds: 12g
4. Oats (dry): 10–11g
5. Pistachios: 10g
6. Sunflower seeds: 9g
7. Wholemeal pasta (dry): 8–10g
8. Lentils (cooked): 8g
9. Chickpeas (cooked): 7–8g
10. Quinoa (dry): 7g
11. Avocado: 7g
12. Kidney beans (cooked): 6–7g
13. Raspberries: 6.5g
14. Hummus: 6g
15. Pumpkin seeds: 6g

Supplement Stack

1. Creatine: 3-5g daily for training adaptation, 10-20g daily for cognitive benefits
2. Ashwagandha (check with your GP if you're on thyroid medication)
3. Magnesium glycinate
4. Tart cherry extract
5. Collagen peptides
6. Iron (for women)
7. Vitamin D
8. Omega-3
9. Zinc

Chapter 15: Recovery Tools

> *"The whole principle came from the idea that if you broke down everything you could think of that goes into riding a bike, and then improve it by 1 per cent, you will get a significant increase when you put them all together."* ***— Dave Brailsford***

When Dave Brailsford took over as performance director of British Cycling in 2003, the programme had won a single Olympic gold medal since 1908.

His approach wasn't to find one big thing that would fix everything.

It was to find a hundred small things. He had the team's mattresses and pillows shipped to every hotel so the riders slept in the same conditions every night. He hired a surgeon to teach the riders proper handwashing to reduce the spread of illness. He had the inside of the team truck painted white so the mechanics could spot dust on the bikes. He tested different massage gels to find which ones accelerated muscle recovery. He developed electrically heated overshorts to keep the riders' muscles at the right temperature between efforts.

None of these things, on their own, would win a race. But together, they changed the sport. British Cycling won eight gold medals at Beijing in 2008. Eight more in London in 2012. Bradley Wiggins became the first British rider to win the Tour de France. Then Chris Froome won it four more times.

What Brailsford did wasn't a grand reimagining of the sport. He just built a toolbox of hypertargeted tools and protocols to address a systemic lack of optimisation.

That's what this chapter is about. You can't control your schedule or your venues, but you can control your recovery tools.

The previous chapters covered foundational inputs such as sleep, nutrition, hydration, and more. Those are undoubtedly the non-negotiables, and without them, nothing else in this section will work properly. But beyond those foundations are specific tools you can use to accelerate your recovery, and the key is knowing which one to reach for depending on which system is depleted, what situation you're in, and what you have available to you.

The aim isn't to acquire some magic, one-size-fits-all pill. It's to build an adaptive and intelligent toolbox.

And by the end of this chapter, you'll have started building your own.

Tip 62: Make Time For Heat And Cold Exposure

This tip isn't just about the physiological benefits of sauna and cold water exposure.

Yes, the science supports it. A twenty-year Finnish study tracking over 2,300 men found that those who used a sauna four to seven times per week had a forty per cent lower risk of mortality compared to those who used it once a week. Later research confirmed the cardiovascular benefits extend to women too, though they sadly (like in many other situations) remain understudied compared to men at the time of writing this book in 2026.

Heat exposure increases heart rate, promotes dilation of blood vessels, triggers heat shock proteins that help repair damaged proteins, and activates the parasympathetic system during the cool-down afterwards. According to research from the European Journal of Applied Physiology, cold exposure triggers a norepinephrine (the body's primary alertness chemical) release of up to two hundred to three hundred per cent or more, which paradoxically leaves you calmer and more focused afterwards. The combination of hot and cold improves circulation, reduces inflammation, and accelerates recovery in ways that are well documented.

Wim Hof built an entire methodology around cold exposure, and whatever you think of him, the peer-reviewed research on deliberate cold exposure is

increasingly hard to argue with.

But there's more to it than just the science.

It's an inherently social activity.

If you can find a wild lake with a sauna, you'll find interesting people, interesting conversation, wildlife, and a closeness to the seasons that will enhance your life. Social connection is a big part of recovery and wider nervous system regulation, so it's worth swapping your emails, notifications, and never-ending to-do list for an investment of time in this area.

On the practical side, cold water exposure can literally feel shocking when you're not used to it. So, you could start with 30 seconds of cold water at the end of your shower and build from there. The first few times will feel horrible, and your body will signal you to panic-breathe. But, if you can push through it and train your body not to freak out, the post-cold feeling of alertness and calm is addictive, and, in time, you'll find yourself actually enjoying the cold.

One timing note to bear in mind...

Cold exposure immediately after strength training may blunt the adaptive response. The inflammation that follows strength training is part of the adaptation process, and killing it with cold too quickly can reduce your well-earned gains. Use the cold on your non-training days, or keep it well outside of the training window.

Tip 63: Move On Your Rest Days

As I alluded to in the introduction to this section, there's a difference between passively resting and actively recovering.

When most people think "recovery day", they think of the sofa and generally doing nothing. Don't get me wrong, there are times when that's exactly what you need. If you're depleted and your body is telling you the tank is empty, then passive rest is the right call. But most of the time, what your body actually needs after a hard run of shows or a tough training week isn't inactivity.

Zone two work, like walking, swimming, or an easy cycle, helps to clear metabolic waste, improve lymphatic flow, and down-regulate the nervous system.

Your lymphatic system (which is responsible for clearing cellular waste and supporting immune function) doesn't have its own pump, the way your cardiovascular system does with your heart. It relies on muscle contraction to move fluid through the system. When you sit still for extended periods, that clearance slows down. Waste products from training and performing stick around longer, which means inflammation takes longer to resolve. You often end up feeling sluggish and stiff, which you interpret as needing more rest, which leads to more sitting, which further slows clearance.

It's a vicious cycle.

And the way to break it is to move.

Twenty minutes of easy walking can do more for your recovery than an entire afternoon on the sofa. Research on active recovery consistently shows that low-intensity movement accelerates the clearance of metabolic byproducts and improves subjective feelings of recovery compared to passive rest. A meta-analysis in Sports Medicine found that active recovery reduces blood lactate levels significantly faster than passive rest and improved next-day performance markers across multiple studies.

Phil Jackson, one of the most successful coaches in NBA history, had his players do Tai Chi on recovery days. Not because he was eccentric (although he was... He had some unorthodox methods including making Michael Jordan meditate, holding practices in near-darkness so the players had to rely on their senses other than just sight, and burning sage in the locker room after games to "clear the energy") but because he understood that gentle mindful movement served the nervous system.

The trick with active recovery lies in the intensity. It should feel easy. If your heart rate is elevated significantly, then you've gone too far. The aim is gentle, sustained movement that promotes circulation without placing additional demand on the body.

Once you've got that dialled in, you can hit the sage.

Tip 64: Soft Tissue Work You Can Do Yourself

You don't need a massage therapist to look after your soft tissue.

Don't get me wrong, professional soft tissue work is valuable, and if you have the means and the access, it's worth investing in. But the reality for most musicians is that regular professional treatment is either too expensive, too impractical given your schedule, or too difficult to access consistently.

So, you need the tools to do it yourself, anywhere, with minimal equipment.

Foam rolling is the most common and also the most misunderstood.

The old thinking was that foam rolling "breaks up" scar tissue and adhesions. It doesn't. Research from the Journal of Sports Rehabilitation showed that the mechanical forces involved in foam rolling are nowhere near sufficient to deform fascial tissue. In reality, it changes how your nervous system perceives the area. It's neural input, not tissue manipulation. The pressure from the roller signals your brain, which changes the tension in the surrounding muscles. That's why it feels like it "releases" something. Your nervous system is dialling down the protective tension it was holding.

If you're travelling and don't have space for a full-size foam roller, a lacrosse ball is another great tool. It's small, portable, and you can target specific trigger points in the shoulders, glutes, feet, and forearms. These are all areas that take a hammering as a musician. A few minutes of sustained pressure on a trigger point can noticeably reduce tension and improve range of motion.

Massage guns work on the same principle but with speed rather than pressure. They deliver rapid pulses into the muscle (around 20 to 40 times per second) that overwhelm the sensory receptors in the area, causing your nervous system to dial down the protective tension. Focus on the areas that take the most punishment (forearms, shoulders, upper back, glutes, quads and calves).

With all soft-tissue work, avoid manipulating close to bone, joints, or acutely injured areas. And don't mistake temporary relief for a long-term fix. These are all tools at your disposal, but if you're chronically tight somewhere, the cause will likely require targeted training to build strength into weak areas.

Hanging for spinal decompression is simple and effective. 30 to 60 seconds

of dead hang from a pull-up bar (or a sturdy door frame if it's all you have) creates space in the spine, lengthens the lats, and decompresses the vertebral discs that get loaded during performance, training and just generally throughout the day.

Nerve gliding exercises are less well-known but also very important. These are gentle movements that mobilise your nerves through their protective sheaths, preventing the adhesions and compression that can develop over time from repetitive movement. For musicians who use their hands and arms extensively, this is particularly relevant. Your physiotherapist or trainer can show you the specific glides for your instrument-related problem areas.

The final point here is that proximity matters. If you have to go looking for a tool, you won't use it. But if it's in your line of sight, you're more likely to pick it up. The aim is to reduce the friction between you and "the thing". I'm a big fan of microloading this work as opposed to spending a longer session on it.

Five minutes here, five minutes there seem to have a greater impact in the long term for both my clients and me, so you may well find the same.

Chapter 16: Recovery in Context

> *"There is no problem so bad that you can't make it worse."* — ***Chris Hadfield***

Chris Hadfield commanded the International Space Station and famously recorded a music video in orbit. The environment he worked in was the most hostile one a human body has ever had to endure.

On the ISS, your body starts falling apart almost immediately. Muscle is "eaten" by the body at up to twenty per cent over two weeks, bone density drops, sleep fragments because the sun rises and sets sixteen times every twenty-four hours, and the immune system weakens.

Hadfield's response (and NASA's) was two hours of mandatory exercise every single day, structured sleep protocols, timed nutrition, and a discipline around routine that left nothing to chance.

Without it, the environment would win.

Granted, a three-month tour isn't space.

But fragmented sleep, shifting time zones, inconsistent nutrition, and no control over your surroundings produce a version of the same unravelling, particularly when you've been doing it relentlessly for years. Touring isn't exactly recovery-friendly, and you also want to enjoy it for what it is. So it's about finding the things that move the needle for you to keep you on the right side of recovered.

Unless you have a particularly accommodating tour manager, the likelihood is that you won't be able to have your mattress shipped from one hotel to the

next, and much of what we've discussed so far assumes you are at home with some degree of control.

So, in this chapter, we're going to look at adapting what you've learned to the context of travelling and the schedule patterns that frequently occur as a musician. You won't find specifics in this chapter, as there are too many to name. Instead, you'll acquire a set of guiding principles that bend with your schedule and can travel with you.

Tip 65: Pack A Recovery Toolkit For Tour

Touring is one big recovery challenge.

Jet lag is the most obvious point here.

When you cross time zones, your circadian rhythm gets thrown off. The most effective tools for resetting it are light exposure timing, melatonin timing, and meal timing.

None of these are complicated things to do. They just require you to think about them before you arrive, rather than after.

Hydration on planes deserves special attention. Cabin air humidity sits at around ten to twenty per cent, which is significantly drier than most indoor environments. You dehydrate faster than you think at altitude, and if you're not actively drinking water throughout the flight, you'll land already in deficit. Try adding electrolytes to your travel water. It's a small thing that makes a big difference.

Compression during travel is another simple tool that most people overlook. Compression socks reduce swelling in the lower legs, support circulation, and help you arrive feeling less like you've been sitting in a tin can for six hours.

The hotel room recovery toolkit is something I recommend every touring musician puts together.

This includes a resistance band, a lacrosse ball, and a phone app with access to a few NSDRs (Non-Sleep Deep Rest: A form of guided body scan that deeply downregulates the nervous system). The band gives you the ability to do activation and mobility work. The lacrosse ball gives you targeted soft tissue release. And the NSDR gives you a ten to twenty-minute nervous system reset

that can rival a nap, but without the grogginess. I also recommend electrolyte sachets, protein bars, earplugs, and an eye mask to reduce the variables that come with different hotels and different bedrooms.

Michael Gervais, the performance psychologist who works with Red Bull athletes and the Seattle Seahawks, talks about "controlling the controllables". On tour, you can't control a huge amount. But you can control what you pack, your active recovery routine, what you drink, and how you wind down for sleep.

Tip 66: Invest In Your Recovery Relationships

So far, we've spent a lot of time discussing sleep protocols, nutritional strategies, and recovery tools.

But, for musicians, there's a massive blind spot.

Touring is isolating in a way that's hard to explain to people who haven't experienced it. On the surface, you're surrounded by people. Every night, there are thousands of people watching you. And backstage, there are people everywhere.

It definitely doesn't look like isolation.

But it can be.

The connections you have can often be transactional or surface-level (as much as you'd never admit it to each other). Everybody is doing their own version of the same thing. And the people who actually know you, like your partner, your kids, your friends, and your family, are somewhere else entirely.

Then, when the tour ends, you go from thousands of people every night to the tinnitus-ridden hum of your empty kitchen at 3am.

The post-tour crash is a real thing, and it's not just physical. It's the sudden disappearance of structure, purpose, adrenaline, and social contact all at once. It leaves you in a house that feels too quiet, trying to adjust to a life that feels oddly empty despite being everything that you missed while you were away.

This matters physiologically, not just emotionally.

Oxytocin (the hormone associated with bonding, trust, and social connection) is a genuine recovery hormone. It lowers cortisol, which in turn

improves sleep and buffers against burnout. It is released through meaningful social contact. For musicians who spend long periods away from their social foundations, you may find your cortisol is elevated as a result.

The fix isn't complicated, but it does require deliberate effort.

You need to focus on building "recovery relationships" in the same way that you accumulate recovery protocols. You need to focus on nurturing the connections that matter most to you and make time for the people who ground you. This topic can require some inward-looking, and hopefully, you won't be able to identify too deeply with it as an issue. But, if you do, it's worth recognising that it's a real thing.

Your body recovers better when it feels safe.

And feeling safe is, in large part, a social experience.

Chapter 17: Recovery for the Long Term

> *"I train five or six days a week, but I don't go crazy. I'm training for stamina."* ***— Mick Jagger***

Mick Jagger has been the frontman of the Rolling Stones for over sixty years.

He was eighty years old when the Hackney Diamonds tour launched in 2024, and he was still sprinting across the stage for two hours a night.

The image of Jagger as the embodiment of rock and roll excess is one of the great misdirections in music history. The drugs, the parties, the lifestyle. That's what people associate with the Rolling Stones. But the reason Jagger is still on stage at eighty has nothing to do with any of that.

Behind it is something that looks far more like professional sport.

Ballet, kickboxing, swimming, yoga, and running form the foundation of his week. He runs up to eight miles a day during tour preparation. He works with a Norwegian personal trainer who also coaches Olympic athletes and national football teams, three hours a day, five or six days a week. His father was a PE teacher, and Jagger has said that discipline and willpower (not genetics) are what have kept him on stage for six decades. He isn't a freak of nature with "lucky" genes. He's an athlete who happens to play music.

Everything in this book so far has been about performing better in the immediate term.

This chapter takes a longer view.

These days, I see success and longevity in this harsh and competitive industry as a result of how well you can recover. Your career is a marathon,

not a sprint. And the choices you make about your training and recovery are the ones your body will either thank you for or charge you for a decade from now.

For us, durability is the name of the game.

In this final chapter of tips, we're going to look at the two things that will define the length of your career, and how to extend it indefinitely in a way that buffers you against injury and burnout in the long run.

Tip 67: Give Burnout Recovery the Time It Needs

If you've already experienced burnout (or if you suspect you're heading towards it), I need to set a realistic expectation.

Burnout recovery doesn't happen in a weekend, or even in a week off. Genuine recovery is measured in months.

We covered the three dimensions of burnout and the cultural side of it in the mental conditioning section. What matters here is what happens in your body when burnout takes hold, and how long it takes to come back from it.

Burnout isn't just "being tired". It's a measurable physiological state with hormonal, neural, and immune markers. Your cortisol rhythm gets disrupted. Your inflammatory markers go up. Your immune function drops. Your brain's ability to regulate emotion and make good decisions is compromised. And all of this takes time to recalibrate back to baseline.

Distinguishing burnout from depression matters too, because they share a lot of symptoms but have different causes and different paths back.

Burnout is usually situational. It stems from sustained demand exceeding recovery capacity, often in a context where you have limited control over your schedule. Depression is more pervasive and less tied to a specific context. They can co-exist, and one can lead to the other, but the interventions are different. If you're unsure which one you're dealing with, I recommend you talk to a qualified professional.

This isn't something you should try to diagnose yourself.

Christina Maslach, whom we touched on earlier in this book, is world-renowned for her work on occupational burnout, and her research identifies

six organisational factors that drive it:

1. Workload
2. Control
3. Reward
4. Community
5. Fairness
6. Values

For musicians, the one that comes up most consistently is control.

The less control you have over your schedule, the higher your risk of burnout. We often have very little say over when we work, how much we work, how the work is structured, and what we get paid. Recognising that this structural reality increases your risk doesn't fix the problem, but it can help you to take the other recovery strategies in this book more seriously.

When the structural issues are set in stone, the individual recovery strategies become even more important.

The performing arts experience burnout rates similar to those of healthcare workers and emergency responders. And yet, unlike those professions, we have almost no institutional support structures for dealing with it. There is no occupational health. There is no HR department. There are no mandatory rest periods. And no union-enforced recovery time (for the vast majority of us). For the most part, you're on your own.

That's why the recovery timeline matters. If you are experiencing symptoms, pushing through isn't strength.

It's the single fastest way to turn a recoverable situation into a chronic one.

Tip 68: Do One Thing Every Day for Your Future Self

There's nothing like having your health taken away to put your life sharply in perspective.

And for me, I have been fortunate enough to get it back (at least in a functional way). This book wouldn't exist if it weren't for the hard times I have

been through with my brain injury recovery. And Performance Conditioning is, in many ways, my attempt to give back to our community in an area where I feel I am uniquely positioned based on my experiences.

So, I'm going to end this section in the same way I try to live my post-brain-injury life.

With a long-term view.

The musician who recovers the best isn't the one with the most expensive supplements, the fanciest gym, or the most sophisticated recovery protocol. It's not so much about the $1.5m strategies that we discussed towards the beginning of this book.

It's about doing something small, every single day, that serves your future self.

Something bite-sized, manageable, and something that compounds with consistency.

It might be a 20-minute walk. A body scan before bed. A glass of water with electrolytes when you wake up. Five minutes of soft tissue work. A meal that adheres to the principles we discussed. Turning your phone off an hour earlier than usual. Some rope flow. An NSDR. Some exhale-biased breathing.

None of these things, in isolation, will change your life.

But strung together, day after day, month after month, year after year, they will create something remarkable. It's the water-dripping-on-stone effect. Each drop is invisible, but the cumulative effect can change the shape of the landscape.

The musician who does one small recovery action every day isn't just maintaining. They're compounding an advantage that, over a twenty or thirty-year career, becomes insurmountable.

The alternative is to do nothing.

And the problem with doing nothing is that it doesn't feel like a problem until it's too late. Ageing doesn't announce itself. The niggles that you could have prevented, the flexibility that you could have maintained, and the resilience that you could have built. By the time you notice them as issues, you'll be backed into a corner, and the road back is much longer than the road forward would have been.

We, not just as an industry but as a society, need to shift our mindsets from reactive to preventive.

Don't get me wrong, there's a happy medium between complacency and living like a monk. If you beat yourself up every time you miss a day, feel guilty every time you eat something that isn't on your "approved" list, or stress about your HRV score every morning, then all you've done is swap one problem for another. Recovery is a practice. Not a performance. So, do it. But don't take it too seriously. The great thing about being alive is that there is always a new day to start fresh and hunt for the "one small thing" idea.

All you need to do is do that one thing today. Then again tomorrow. And then, just keep going for as long as you can.

Longevity.

That's the whole game.

Recovery: Quick-Reference Checklist

This list is organised a bit differently from the previous two quick-reference checklists.

Because recovery touches so many areas, I've broken it into daily, weekly, and monthly habits, with a separate section for when you're on tour and a supplement reference at the end. If you're not sleeping well, start with the daily habits. If you're about to go on the road, skip straight to the tour section. If you've been feeling flat, look at the monthly check-ins and the burnout markers.

As before, don't try to do it all. Pick a few ideas that meet you where you are right now and build from there.

Daily

1. Take your supplements.
2. Do 5-10 minutes of soft tissue work.
3. Dim the lights for 60-90 minutes before bed.
4. Do a brain dump if your mind is racing before sleep.
5. Prioritise single-ingredient, unrefined, colourful food where you can.
6. Get 10 minutes of direct sunlight on your face within an hour of waking.
7. Add electrolytes to your water (especially if you're travelling or performing).
8. Put your phone down before sleeping. Or at least reduce screen time in that window.
9. Eat protein with every meal. Aim for 20-40g within two hours of training

or performing.
10. Do one small thing for your future self. A walk, a body scan, some soft tissue work, or an NSDR.

Weekly

1. Move on your rest days.
2. Eat oily fish two to three times a week for omega-3.
3. Spend at least one hour on heat and cold exposure.
4. Check in with yourself subjectively. Rate your sleep, mood, energy, soreness, and motivation out of five.

Monthly / Ongoing

1. Audit your sugar intake.
2. Audit your alcohol intake.
3. Audit your caffeine intake.
4. Test your CO2 tolerance.
5. Watch for the warning signs of burnout.
6. Invest time in your recovery relationships.
7. Review your HRV and resting heart rate trends.

On Tour

1. Pack your recovery toolkit: a resistance band, a lacrosse ball, electrolyte sachets, protein bars, earplugs, and an eye mask.
2. Adjust to new time zones with light exposure timing, melatonin timing, and eating at local meal times.
3. Keep your sleep environment as consistent as possible.
4. Use NSDR for a 10-20 minute nervous system reset.
5. Wear compression socks on flights.
6. Hydrate properly.

V

PART 5: BECOMING AN ATHLETE IN YOUR OWN RIGHT

Becoming An Athlete In Your Own Right

That's it!

If I could go back and do it all over again, and if I had access to this sort of book at the beginning of my career, I'm confident I would have become a much better musician, much faster, with fewer injuries, and with much less of an internal struggle. Unfortunately, it took twenty years in the industry, multiple playing-related injuries, two brain injuries, and three years of rehab to discover everything I've shared with you here. And I still feel like I'm just getting started on my journey.

My goal is to save you those two decades of hard lessons and learnings.

I hope I delivered.

And more importantly, I hope you do something with everything you've learned throughout the last seventeen chapters.

You're Further Along Than You Think

Back in Part One, I mentioned that there's an extra, hidden, even deeper foundational layer.

It acts as the key that opens all other doors. It can be tough to find, but once you've found it, you'll never look back. Some people find it straight away, or, if they're lucky, they might even have it from the beginning. It may also take you longer, but I firmly believe that if that's the case, then you'll end up in an even stronger position in the long run.

How did you get on? Did you find it?

If you did, that means you're now set up for life. But if not, don't worry

because you're further along than you think.

You now understand more about how your body and mind work under performance conditions than most musicians will learn in their entire career.

That's not a small thing.

But knowing and doing are different.

From where you are right now, the gap between knowing the information and doing something with it might feel enormous. We've covered three dense pillars with dozens of techniques, training methods, breathing protocols, and recovery strategies, so you might feel paralysed with where to begin.

If that's you, don't stress, because the mountain isn't as tall as you think.

Music or Sports?

When I was a kid, I hated sports.

In fact, I actively went out of my way to avoid it.

Unfortunately for me, the school I went to had three long sports sessions per week that took up the vast majority of the afternoon timetable on those days. So, I'd hide out in the music department, having learned the route the sports teachers took when they went looking for the kids who were skiving off, and I'd wait, watch them walk past, and then slip off to find a practice room. What's funny to look back on is that, once I thought the coast was clear, I'd often make my way over to the small chapel on the side of the school grounds for a solid three hours of church organ practice.

Not exactly inconspicuous!

One day, the sports teachers stopped coming to look for me, and the game of cat and mouse came to an abrupt end. I never found out exactly why. The only thing I can think of is that my name came up in a staff meeting and someone, somewhere, decided just to let me do what I was going to do.

I'd made my choice. Music, not sport.

If you're a musician, there's a decent chance that story sounds familiar. Maybe not in the specifics, but in the feeling. The sense that sport was for one kind of person and music was for another, and you knew which side you fell on. You weren't the kid who got picked for teams. You were the kid in the practice

room. And over time, that wasn't just your preference. It became something deeper.

Not "I prefer music to sport."

More like "I'm not that kind of person."

In Part Three, we talked about identity fusion as the way musicians merge their sense of self with their craft so tightly that a bad gig doesn't just mean you played badly, it means you ARE bad. The narrower your identity, the harder you fall when any part of it is threatened. COVID-19 was a great display of this idea in action across an entire industry in existential crisis.

It's not all about what you project outwards, though. It works on the intake side of things, too.

The narrower the identity, the harder it is to let anything new in.

If "musician" is everything you are, then "athlete" isn't just unfamiliar. It feels like a contradiction of your personality. And so, the trick is to realise that you've been an athlete all along.

You just may not have realised it yet.

The Cost of Accidental Success

A Premier League footballer plays fifty to sixty matches a year with an entire training and recovery package to help them along the way.

If you work in theatre, you play over four hundred. And as a touring musician, you might play a hundred and fifty shows in six months, with brutal travel schedules, broken sleep, and no recovery protocol to speak of, let alone a periodised training plan. Whether you sit in asymmetric positions for hours or you're jumping around on stage, you repeat the same movements thousands of times a week, and you perform under pressure, with adrenaline and cortisol flooding your system.

You do it again, and again, and again. Month in, month out. Year in, and year out.

At the end of the day, you can't build on what you can't see.

And we, as musicians, are terrible at seeing what we actually do.

We assume our total value is directly linked to how much we practise and

how good we sound when the red light is on. And while that's of huge value, it's doing you a disservice. The skills we've discussed in this book go far beyond your instrument, and because you've never had to name them or work on them explicitly in the same way that you work on your craft, you probably don't even know they're there.

Without these "phantom" skills, you physically wouldn't be able to do what you do.

You'd crumble under the pressure. You'd be sacked for your inability to play with any degree of consistency. You'd be injured all the time. And you'd have quit years ago, not because you weren't "talented" enough, but because your body and mind simply couldn't sustain what your skills were asking of them.

But you *didn't* quit. You're still here. Which means you've been doing this work. You just didn't know it.

Every time you've taken a breath before a big entrance, that was regulation. Every time you've shaken off a wrong note and carried on, that was mental conditioning at play. Every time you've dragged yourself through a three-gig day on four hours' sleep, that was resilience.

You've been conditioning yourself your entire career.

The problem isn't that you're not doing it.

It's that you're doing it by accident.

Accidental conditioning has a ceiling. It gets you through while you're young and your diary is sporadic. But the body naturally ages. It takes longer to recover. You become physically weaker unless you actively spend time building strength. And, all the while, your diary is getting busier, and your gigs start to carry higher stakes because your ability to pay the mortgage and feed your kids is directly tied to your musical success.

Until now, you've been running on a system you built without knowing you were building it, and you've never once stopped to ask whether it's any good.

Think about how absurd that would be with your instrument.

Imagine never having had a lesson. Never practising scales. Never working on technique deliberately, and just hoping that enough gigs would sort it out. You'd never accept that for your playing. But that's exactly what you've accepted for the foundational systems that make your playing possible.

Acquiring and applying these skills is the difference between being an A-team player in your circles and a B or C-team player.

In this day and age, being an A-team player is the difference between success and failure. It's the difference between having a full diary and an empty diary. And it's the difference between thriving and desperation. And so, you can't leave anything to chance. You need to get these "phantom skills" together.

These skills aren't just recognised in other industries, they are actively celebrated.

Look at the corporate world.

There's an entire sub-industry dedicated to celebrating these exact qualities in those who have done interesting and inspiring things. Workshops, events, and keynote speakers who charge more for an hour-long talk than many people will make in an entire year. Countless retired sportspeople now deliver high-energy, highly motivating, and insightful talks on what made them *great*, which are met with praise and admiration by white-collar audiences seeking the next competitive advantage in the central business districts of major cities worldwide. Demand is so high for these insights that even the military and the FBI have clocked on, too.

So, what are these elusive qualities they're celebrating?

Discipline. Focus on a long-term goal. Grit. Adaptability. The ability to perform complex tasks under immense pressure. Creative problem solving. Active listening. Non-verbal communication. Giving and receiving criticism. And that's just for starters.

It's well documented and well appreciated that these transferable skills are not just valuable, they're the backbone of the business world.

Successful businesses wouldn't exist without them. And so, the stories of those who have overcome adversity on the pitch, demonstrated creative thinking in hostage negotiations, and displayed courageous acts in war-torn countries are celebrated by hopeful business people who want to take a little bit of these commendable traits and use them to fuel their teams with inspiration (and line their pockets with cash in the process).

These stories deserve every ounce of celebration.

But you know who isn't tapping into this demand?

Musicians.

You possess every single one of these skills, but you've just unknowingly gone out there, done the thing, learned, and repeated. Over and over again.

And completely by accident.

This is the reason strength and conditioning exists in the world of sport.

If playing the sport were enough to condition you for the sport itself, there'd be no gym. No strength & conditioning department. No off-season programme. No team of coaches whose sole job is to build the physical and mental capacity that the sport itself doesn't build.

Every serious athlete on the planet knows that the demands of their craft and the preparation for their craft are two different things.

A footballer doesn't get match-fit by playing matches. They get match-fit by training beyond the demands of the game, so that when they're out there on the pitch, they're operating within their capacity rather than at the edge of it. That's what reduces injury. That's what creates consistency. That's what extends careers. The gym work, the recovery protocols, the mental conditioning. All of it exists to build a buffer between what the sport asks of you and what your body and mind can handle.

But you likely don't have that buffer.

You've been working at the edge of your capacity your entire career because you've never built beyond it. The physical load of performing has been met by a body that was never trained to carry it. The mental demands of performing under pressure have been managed by a nervous system that was never taught how to regulate itself. The recovery between shows, tours, and sessions has been left to chance or reduced to a takeaway on the sofa and just hoping for the best.

That's not conditioning.

That's exposure without preparation.

It's the reason that up to ninety-three per cent of professional musicians report playing-related injuries during their careers. Those are injury rates that would trigger a government inquiry if they showed up in any professional sport. Not because musicians are fragile, but because nobody ever built the infrastructure to support what they were already doing.

The difference between musicians and athletes isn't talent or toughness. It's that athletes have entire departments whose only job is to keep them available to perform.

Your skill is only as good as the body delivering it, and take it from someone who has had the ill-fortune of their health being taken away for a period, that's not something you should ever take for granted.

The Industry That Changed Once Can Change Again

Our industry has changed beyond belief since I first came into it back in 2008.

Streaming has obliterated the income streams that musicians relied on for decades. Album sales have collapsed. Royalties have become fractions of a penny, and for years, it's felt like the industry has been eating itself alive.

But something else has happened.

The live show is now the business model.

And streaming, for all the damage it did to royalties, has given an unlimited number of people the chance to discover you and the artists you work with. More discovery means more fans. More fans means community. And community means more demand for the live experience.

Consumer spending on live music in the UK hit a record £6.68 billion in 2024. That's up nearly ten per cent on the year before, and £2 billion higher than 2019. Twenty-three and a half million music tourists attended events in the UK that year. And globally, Live Nation reported over 150 million concert attendees. It's not just a moment in time either. It's a trend that's here to stay. In fact, according to a 2025 report by Goldman-Sachs, the music industry is expected to almost double in value over the next ten years, from $105B in 2024, to nearly $200B in 2035.

Our industry isn't just recovering from the pandemic.

It's bigger than it's ever been.

That's the environment you need to condition for.

The old model of the music industry was built around recorded music, which is a physical asset. Now, it is built around live performance, which is entirely reliant on our resilience as musicians.

In days gone by, you made your money on the session circuit. In those days, there were no MIDI instruments. Everything was recorded by real people. Just go and watch an old cartoon like Tom and Jerry, and compare its music to something more modern for a depressing comparison of how the standards have dropped when it comes to creative music-making on a commercial level. Sure, there are exceptions. But they are the minority.

These days, the opportunity lies in leveraging the global reach of social media and leaning into the creation of unforgettable live experiences. Punters want to get out of the digital world and away from their remote work setups to connect on a human level.

That's our role and our untouchable value in the modern industry as musicians.

We are uniquely positioned to tap into the consumer demand for human connection and live experiences, but to do it successfully and in a way that you can create a healthy career out of, you need one thing:

Durability.

More loyal followings of artists, both large and small, mean more demand. And more demand means more tours and more shows. There are currently more opportunities in live music than at any point in the history of the industry. The musicians who will thrive in that environment aren't the ones with the most followers or who can play the fanciest "lick" on Instagram. They're the ones who can do it again tomorrow. And the day after that. And the week after that. For months and years on end. Consistency and reliability without burning out or sustaining an injury is the key to longevity in an increasingly competitive industry. It's not a talent question. It's a conditioning question. It's a question of how well you can physically and mentally prepare, perform, and recover. Right now, the industry isn't conditioning for any of it. And both your durability and the consistency of your skill are suffering as a result.

Compared to almost every other high-performance profession on the planet, music is decades behind.

Sport has had strength and conditioning departments since the 1970s. The military has invested in human performance optimisation for longer than most of us have been alive. The corporate world has embraced executive coaching,

sleep protocols, and performance nutrition as standard practice. Dance companies have embedded physiotherapy teams and dedicated strength-and-conditioning programmes. Even gaming now has performance coaches, nutritionists, and structured training schedules for people who sit in a chair and press buttons.

Music has none of it. Not at scale, at least.

The industry has changed. The demands on your body and mind have changed. But the way we prepare for those demands hasn't changed at all. If we want to thrive in this new environment, not just survive it, that has to change, too. We are lone rangers with total autonomy. But that can go two ways, and it's up to us to ensure we have the strength and physical resilience to do what the industry demands of us. When the work comes, you have to grab it by the horns and turn those opportunities into as much of a predictable career as you can. No management company or organisation in the music industry is going to build you a strength and conditioning programme or intelligent recovery protocol as a method of "performance insurance" (although my dream is that one day it will be industry standard).

If this is going to happen, it starts with the musicians who decide to take it seriously.

And that might as well be you.

Two Roads From Here

You now have two options.

The first is to take everything in this book and figure it out on your own. The sixty-eight tips you've just read. The science behind each one is all here in the sources and further reading section. The frameworks and protocols are all here. You could easily close this book, pick a starting point, and build your own programme from the ground up.

And I would love nothing more than for you to do that.

But let's be honest about what that looks like.

It looks like trial and error. It looks like spending months, if not years, working out which tips apply to your situation and which ones don't. It looks

like building a training plan with no feedback loop, adjusting it based on guesswork, and hoping you're heading in the right direction. It looks like doing it alone, which for most people means doing it for about three weeks before life gets in the way, and then you don't do it at all.

That's the slow road. And it works, eventually, if you stick with it and manage to not get injured as a result of dodgy ChatGPT programming.

But it's inefficient, risky, and lonely.

The second option is to invest in yourself.

Not just in the knowledge, but in the application. In having someone who's already walked the path show you exactly where to put your feet. In being surrounded by other musicians who are doing the same thing, so you're not the only person in the room who thinks conditioning matters. And in accountability, so that you keep to the plan even when things get tough.

The difference between the two is speed and certainty.

The musicians I work with don't know more than you do right now. They've read this book, and they understand the same principles. The difference is that they're not figuring it out in isolation. They've got a system, a coach, and a community around them. And they're moving faster and with more confidence because of it.

If you're the kind of person who doesn't want to leave your career longevity to "The Gods" and is currently thinking, "Right, I need to do something about this," then the next step is simple.

What To Do Next

You may be wondering why there are sixty-eight tips in this book rather than a clean, round number.

The thing is, a round number would imply that's everything you need to know.

But the reality is that this is so far from the truth.

Yes, the tips you've read in this book will give you a great foundation in how to care for your body and mind so you can become durable both in the music industry and in life. But as you go, you will have questions. You will come

across issues and sticking points. And when you test the ideas from this book in the real world, you will need a helping hand.

The reality is that there are far, far more tips than the sixty-eight you've just read.

There are things that will apply to you, and things that won't. There are nuances that will make a world of difference in how you condition yourself. And there are caveats for how this work carries over into your professional life. The frustration (but also the beauty) of this type of conditioning is that, when you find what works, and if you're doing it right, it should only work for a week. Then you will need to switch it up. It's a living, breathing thing that should morph and adapt over time. It's not a stagnant set of instructions that you should just repeat over and over. That's a surefire route to nothing more than a plateau.

So, you need a companion on the journey.

That's why the Performance Conditioning Journal exists.

It's a free, weekly newsletter dedicated to delving deeper into the world of Performance Conditioning to help you stay moving on your journey.

At the end of the day, musicians aren't just artists. They're athletes in disguise. Except that athletes have full performance teams to support them. The aim of the journal is to give you that performance team in your back pocket.

To continue your Performance Conditioning journey, please head to: performanceconditioningjournal.com

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PART SIX: SOURCES & FURTHER READING

A note from the author:

In this section, you will find the studies, books, and further reading referenced throughout this book.

Rather than a dry bibliography that means nothing to you, this section is designed to further your knowledge on the topics we have covered over the last five parts and seventeen chapters. Each entry includes a short explanation of what it covers, why it matters, and points you in the right direction so you can follow your curiosities further.

Chris x

Further Reading: The Game Within the Game

"Musculoskeletal disorders in drummers," ***Medical Problems of Performing Artists*****, 2020**

This study examined the prevalence and nature of musculoskeletal injuries, specifically among drummers, finding that sixty-eight per cent reported playing-related disorders. It's one of the few studies to focus on drummers rather than instrumentalists more broadly, and it highlights the repetitive strain demands unique to the kit.

"Playing-related musculoskeletal disorders in musicians," ***BMC Musculoskeletal Disorders*****, 2011**

This large-scale study of orchestra musicians found that ninety-seven per cent of female and eighty-three per cent of male participants experienced injury-related symptoms in a single twelve-month period. These are some of the most frequently cited injury prevalence figures in performing arts medicine and they underscore the scale of the problem.

"Musculoskeletal disorders and complaints in professional musicians: a systematic review," ***International Archives of Occupational and Environmental Health*****, 2019**

A systematic review pulling together data from multiple studies to give a broader picture of injury rates across the profession. The range of fifty to ninety-seven per cent prevalence, depending on the study, is drawn from this

kind of aggregated research, and it's useful for understanding how widespread the issue really is.

"Evidence-informed physical therapy management of performance-related musculoskeletal disorders in musicians," ***Frontiers in Psychology*****, 2014**

This paper bridges the gap between performing arts medicine and evidence-based physiotherapy, offering frameworks for managing the kinds of injuries musicians commonly face. If you want to understand the clinical side of musician injury management, this is a solid starting point.

"Workplace injury prevention and wellness program for orchestra musicians: a randomised controlled trial," ***Journal of Orthopaedic & Sports Physical Therapy*****, 2024**

This is one of the more recent and rigorous studies in this space, using a randomised controlled trial to test whether structured wellness and injury prevention programmes actually work for orchestra musicians. It's encouraging evidence that the kind of proactive approach discussed in this book has measurable results.

Tim Gabbett, "The training-injury prevention paradox," ***British Journal of Sports Medicine*****, 2016**

Gabbett's landmark paper challenged the assumption that more training always means more injury. He demonstrated that undertraining can be just as dangerous as overtraining, because a body that hasn't been exposed to sufficient load is poorly prepared for the demands placed on it. This idea underpins much of the book's argument that musicians need to train beyond the demands of their craft rather than simply hoping their playing keeps them conditioned.

UK Music, ***This Is Music 2024***

This is the annual economic report from UK Music, the industry body representing the UK's commercial music sector. The 2024 edition provides the figures on the industry's £8 billion contribution to the UK economy and

wider employment data. Available at ukmusic.org.

LIVE (Live music Industry Venues & Entertainment), *Annual Report 2024*

LIVE is the umbrella body representing the UK's live music sector. Their 2024 report is the source for the statistic that a live music event took place every 137 seconds in the UK, as well as the figures on £6.68 billion in consumer spending, and 23.5 million music tourists. Available at livemusic.biz.

Barclays, "Taylor Swift's Eras Tour to provide nearly £1bn boost to UK economy," May 2024

Barclays' economic analysis estimated the ripple effect of Taylor Swift's UK tour dates across hotels, restaurants, transport, and local businesses. It's a useful example of how a single tour can generate economic impact that dwarfs the ticket revenue itself.

Further Reading: Physical Conditioning

Chapter 1: Foundations

James Nestor, *Breath: The New Science of a Lost Art* (Riverhead Books, 2020)

Nestor participated in a Stanford study where subjects alternated between nasal and mouth breathing for ten-day periods. The nasal breathing phase produced measurable improvements in blood pressure, heart rate variability, and sleep quality. The book is a fascinating and accessible exploration of how modern humans have become some of the worst breathers in the animal kingdom, and what we can do about it. I highly recommend reading this book.

"Intrinsic foot muscle strength training and barefoot training," *Journal of Foot and Ankle Research*, 2019

This study found that eight weeks of barefoot training significantly improved foot muscle strength, arch height, and dynamic balance. It supports the argument that modern footwear has weakened the foundations we stand on, and that deliberate barefoot work can reverse some of that damage. This is a key principle that I use with my clients.

Katy Bowman, *Move Your DNA* (Propriometrics Press, 2014)

Bowman is a biomechanist who makes a compelling case that the human body was designed to move in ways that modern life has all but eliminated. Her work on foot function and the consequences of modern footwear is particularly relevant to the foundations chapter. If you want to understand why your feet

matter more than you think, start here.

Stuart McGill, *Ultimate Back Fitness and Performance* (Backfitpro, 2004)

McGill spent over thirty years at the University of Waterloo studying how spines break down under load. His research demonstrated that core endurance, not core strength, is the primary predictor of lower back health. His "Big Three" exercises (curl-up, side plank, bird-dog) focus on anti-movement patterns rather than sit-ups and crunches, and they form the foundation of evidence-based core training. His concept of a spinal "tolerance budget" is also referenced in Chapter 5.

John Ratey, *Spark: The Revolutionary New Science of Exercise and the Brain* (Little, Brown, 2008)

Ratey, a Harvard psychiatrist, introduced the concept of BDNF (brain-derived neurotrophic factor) as "Miracle-Gro for the brain." He documented how students who exercised before class showed measurable improvements in attention, memory, and processing speed. This book is essential reading for anyone who needs convincing that physical exercise directly enhances cognitive performance.

Erickson et al., "Exercise training increases size of hippocampus and improves memory," *Proceedings of the National Academy of Sciences (PNAS)*, 2011

This University of Pittsburgh study found that one year of moderate aerobic exercise increased hippocampal volume by two per cent, effectively reversing age-related shrinkage by one to two years. It's one of the most cited pieces of evidence for exercise as a tool for protecting brain health, and it's directly relevant to musicians concerned about cognitive longevity.

Dorsey et al., "The Emerging Evidence of the Parkinson Pandemic," *Journal of Parkinson's Disease*, 2018

This paper projected that Parkinson's disease cases would more than double by 2040. Combined with projections from the Alzheimer's Association that

Alzheimer's cases will triple by mid-century, it paints a sobering picture of neurodegenerative disease trends. Exercise is one of the most consistently supported protective factors against both conditions.

Schlaffke et al., "Boom Chack Boom — A multimethod investigation of motor inhibition in professional drummers," ***Brain and Behavior*****, 2019**

Researchers at Ruhr-Universität Bochum found that professional drummers had structurally different brains compared to non-musicians, with thicker fibres in the corpus callosum enabling faster communication between hemispheres. It's direct evidence that years of drumming physically reshapes the brain, and it supports the broader argument that musicianship is a form of high-performance physical activity. It's great evidence for anyone interested in building a business around drumming and longevity with the over 60's as the target audience.

Chapter 2: How to Move

"Bilateral deficit in strength training," ***Journal of Strength and Conditioning Research***

This research explored the phenomenon whereby a single limb can produce more force in isolation than when both limbs work together. It supports the case for incorporating unilateral (single-limb) training into your programme, which is particularly relevant for musicians who need to address asymmetries caused by their instrument (all of us).

Chapter 3: Planning Your Training

Brad Schoenfeld et al., "Effects of resistance training frequency on measures of muscle hypertrophy: a systematic review and meta-analysis," ***Sports Medicine*****, 2016**

Schoenfeld is one of the most published hypertrophy researchers in the world, and this meta-analysis showed that training each muscle group across multiple sessions per week produced superior muscle growth compared to

training it once per week, even when total weekly volume was identical. It's the evidence behind the recommendation to spread your training across the week rather than cramming everything into one session per body part.

Mark Verstegen, founder of EXOS

Verstegen has trained some of the highest-performing athletes on the planet, including the German national football team. His framework of "competing to train and training to compete" captures the idea that what you do in the gym should serve what you do on stage, not the other way around. His work at EXOS is a good example of how elite athletic preparation is structured and periodised.

Chapter 4: In the Session

Robinson et al., "Dose-response relationship between weekly resistance training volume and increases in muscle mass: a systematic review and meta-analysis," ***Sports Medicine*****, 2024**

This meta-analysis found that stopping one to two reps short of failure produces comparable strength gains to training to failure, with significantly less fatigue, lower injury risk, and better recovery. It's the scientific backing for the approach of training with intention rather than grinding yourself into the ground every session.

Chapter 5: Staying Injury-Free

Nosaka et al., "How does exercise-induced muscle damage affect pain and soreness?" ***Exercise and Sport Sciences Reviews*****, 2002**

This paper helped reframe our understanding of DOMS (delayed onset muscle soreness), showing that it's primarily a marker of novelty rather than structural damage or effective training. If you've ever judged the quality of a workout by how sore you were the next day, this research will change your perspective.

Flann et al., "Muscle damage and muscle remodelling: no pain, no gain?" ***Journal of Experimental Biology*****, 2011**

Building on the DOMS research, this study demonstrated that significant muscle adaptation is possible with minimal soreness. It challenges the deeply ingrained "no pain, no gain" mentality and supports the idea that smart, progressive training is more effective than punishing yourself.

Gray Cook, ***Movement: Functional Movement Systems*** **(On Target Publications, 2010)**

Cook created the Functional Movement Screen (FMS), an industry-standard assessment tool used across professional sport. His principle of "don't add strength to dysfunction" is central to the injury prevention approach in this book. Over two decades of FMS research shows that athletes with unaddressed movement asymmetries are significantly more likely to sustain injury. If you only read one book on movement quality, make it this one.

Further Reading: Mental Conditioning

Chapter 6: The Operating System

Robert Sapolsky, *Why Zebras Don't Get Ulcers* (W.H. Freeman, 1994; 3rd ed. Holt, 2004)

Sapolsky is a Stanford neuroendocrinologist who spent decades studying stress in wild baboon populations. His research demonstrated how chronic stress and elevated cortisol levels wreak havoc on the body, and how social hierarchy directly influences physiological health. This book is one of the most accessible and entertaining introductions to the science of stress you'll find.

Stephen Porges, *The Polyvagal Theory* (W.W. Norton, 2011)

Porges' polyvagal theory provides the scientific framework for understanding how the vagus nerve governs our physiological state, shifting us between states of safety, mobilisation, and shutdown. It's the foundation for understanding why your nervous system reacts the way it does under performance pressure, and why techniques like breathing and vagal stimulation work.

Wiehler et al., "A neuro-metabolic account of why daylong cognitive work alters the control of economic decisions," *Current Biology*, 2022

This study found that prolonged cognitive effort causes glutamate to accumulate in the prefrontal cortex, leading to measurable cognitive fatigue that alters decision-making. It's the neurochemical explanation for why your

brain struggles after long periods of focused work, and it validates the need for strategic rest rather than powering through.

George Mumford, *The Mindful Athlete* (Parallax Press, 2015)

Mumford is the mindfulness coach who worked with Michael Jordan and the Chicago Bulls during their dynasty years, as well as with Kobe Bryant and the LA Lakers. His book bridges the gap between contemplative practice and elite performance, and it's particularly relevant for musicians who want to understand how mental conditioning works at the highest levels of sport.

Anna Lembke, *Dopamine Nation* (Dutton, 2021)

Lembke is a Stanford psychiatrist who explains how the brain's pleasure-pain balance system works and how modern life has hijacked it. Her concept of the dopamine "seesaw" is directly relevant to understanding motivation, reward, and why constant stimulation can quietly erode your baseline capacity for focus and satisfaction.

Chapter 7: Building the Performer's Mind

Patricia Linville, "Self-complexity and affective extremity," *Social Cognition*, 1985

Linville's research showed that people with a narrower sense of identity experience more extreme emotional reactions when any part of that identity is threatened. For musicians who have fused their sense of self with their ability to play, this is essential reading. It's the academic foundation for the identity work discussed in this chapter and revisited in Part 5.

Phillippa Lally et al., "How are habits formed," *European Journal of Social Psychology*, 2010

This is the study behind the widely cited finding that it takes an average of sixty-six days for a new behaviour to become automatic, not the twenty-one days that popular culture would have you believe. It's a useful reality check for anyone starting a new training or conditioning routine.

BJ Fogg, *Tiny Habits* (Eamon Dolan/Houghton Mifflin Harcourt, 2019)

Fogg is a Stanford behaviour scientist whose approach focuses on making new habits so small that they're almost impossible to fail at. His method of anchoring new behaviours to existing routines is practical and evidence-based. If you struggle to stick to new habits, this book offers a genuinely different approach.

Amishi Jha, *Peak Mind* (HarperOne, 2021)

Jha is a neuroscientist who has spent her career studying attention and working with high-stress populations including military personnel. Her research shows that attention is a trainable skill, not a fixed trait, and her book provides practical protocols for building it. Directly relevant to the focus and concentration work in this chapter.

Fustös et al., "On the embodiment of emotion regulation," *Social Cognitive and Affective Neuroscience*, 2016

This study explored how awareness of bodily sensations (interoception) relates to the ability to regulate emotions. It supports the idea that tuning into your body isn't just a mindfulness exercise but a measurable skill that improves emotional control under pressure.

Chapter 8: Before You Play

Jim Taylor, *The Triathlete's Guide to Mental Training* and related publications

Taylor's work on pre-performance routines is widely used across multiple sports. His frameworks for structuring what you do in the minutes and hours before you perform are practical and adaptable. If you want to build a pre-show routine grounded in sports psychology, his publications are a good place to start.

Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience* (Harper & Row, 1990)

Csikszentmihalyi's research defined the "flow state," the condition of total

absorption where performance feels effortless and time seems to disappear. His work identified the conditions that make flow more likely, including the balance between challenge and skill level. This is the foundational text on the subject and essential reading for any performer.

Susie Cranston & Scott Keller, "Increasing the 'meaning quotient' of work," *McKinsey Quarterly*, 2013

This McKinsey report is the origin of the widely cited claim that people are "up to five times more productive" during flow states. It's worth noting that this figure is based on executive self-assessment rather than peer-reviewed experimental data, but it captures the scale of the performance difference that flow can produce.

Chapter 9: In Performance

World Health Organisation, "Environmental noise and health," WHO Europe, 2024

The WHO's ongoing work on noise exposure and health provides context for the auditory demands musicians face. Prolonged exposure to high sound levels has well-documented effects on hearing, cognitive function, and stress physiology, all of which are relevant to musicians working in loud environments night after night.

Timothy Wilson et al., "Just think: the challenges of the disengaged mind," *Science*, 2014

Wilson's famous study found that many people would rather administer mild electric shocks to themselves than sit quietly with their own thoughts. It illustrates just how uncomfortable the untrained mind finds stillness, and it supports the argument that mental conditioning is a skill that needs deliberate practice.

Castiglione, Cardullo & Rampullo, "Self representations and music performance anxiety," *Europe's Journal of Psychology*, 2018

This study examined the relationship between how musicians see themselves and their experience of performance anxiety. It found that self-representation plays a significant role in MPA, linking the identity work discussed earlier in the book to the practical reality of performing under pressure.

Juncos et al., "Acceptance and Commitment Therapy for the treatment of music performance anxiety: a pilot study with student vocalists," *Frontiers in Psychology*, 2017

This pilot study tested ACT (Acceptance and Commitment Therapy) as a treatment for music performance anxiety in vocalists and found promising results. ACT's approach of accepting difficult thoughts and feelings rather than trying to eliminate them aligns with the defusion techniques discussed in this chapter.

Limb & Braun, "Neural substrates of spontaneous musical performance: an fMRI study of jazz improvisation," *PLOS ONE*, 2008

Researchers used fMRI to scan the brains of jazz musicians during improvisation and found that the prefrontal cortex (the brain's inner critic) deactivated while sensorimotor areas lit up. It's direct neuroimaging evidence that peak musical performance involves letting go of conscious control, not tightening it.

Bernstein et al., "Decentering and related constructs," *Clinical Psychology Review*, 2015

This review examined the concept of "decentering," the ability to observe your own thoughts and feelings as passing events rather than identifying with them. It's the psychological mechanism behind cognitive defusion and provides the theoretical basis for the "watching the thought go by" techniques discussed in this chapter.

Roger Federer, Dartmouth College Commencement Address, June 2024

In his commencement speech, Federer revealed that despite winning almost

eighty per cent of his 1,526 career singles matches, he only won fifty-four per cent of individual points. It's a powerful illustration of how elite performance is built on the ability to lose small moments without losing the bigger picture.

Jamieson et al., "Turning the knots in your stomach into bows: reappraising arousal improves performance on the GRE," ***Journal of Experimental Social Psychology*****, 2010**

This study showed that simply reframing pre-performance anxiety as excitement or useful energy led to measurable improvements in test performance. It's the evidence behind the arousal reappraisal technique discussed in this chapter, and it demonstrates that the sensation of nerves and the sensation of readiness are physiologically identical.

Chapter 10: Sustaining Your Career

Pirate Studios, "66% of artists have experienced burnout at least once," 2021

Pirate Studios surveyed their community of independent musicians and found that two-thirds had experienced burnout at least once. It's one of the more recent data points on burnout prevalence in the music industry and it highlights that this isn't just an elite-level problem.

Christina Maslach, ***The Maslach Burnout Inventory Manual*** **(Consulting Psychologists Press)**

Maslach is the pioneer of burnout research and her inventory remains the most widely used diagnostic tool in the field. Her work identified the three dimensions of burnout (emotional exhaustion, depersonalisation, and reduced personal accomplishment) as well as six organisational factors that drive it: Workload, control, reward, community, fairness, and values. Also referenced in Chapter 17.

"Burnout in performing artists," ***Frontiers in Psychology***

This study applied burnout research specifically to performing artists and

found that sixty to seventy per cent reported burnout symptoms. It's one of the few studies to examine burnout through the lens of the performing arts rather than corporate or healthcare settings. Also referenced in Chapter 17.

Carol Dweck, *Mindset: The New Psychology of Success* (Random House, 2006)

Dweck's research on fixed versus growth mindsets has become one of the most widely known concepts in psychology. Her work shows that people who believe their abilities can be developed through effort consistently outperform those who believe talent is fixed. Directly relevant to the "talent narrative" challenged throughout this book. Also referenced in Part 5.

Rich Roll, *Finding Ultra* (Crown Archetype, 2012)

Roll's memoir documents his transformation from an overweight, out-of-shape forty-year-old to one of the world's fittest endurance athletes. It's a compelling example of what's possible when someone commits to long-term physical and mental conditioning, and it challenges the assumption that your best years are behind you.

Kobe Bryant, *The Mamba Mentality: How I Play* (MCD, 2018)

Bryant's book details the obsessive preparation, relentless work ethic, and psychological approach that defined his career. It's less of an autobiography and more of a manual for competitive excellence, and his approach to studying opponents, refining technique, and maintaining intensity is directly transferable to musical performance.

Michael Merzenich, *Soft-Wired* (Parnassus Publishing, 2013)

Merzenich is widely regarded as the father of neuroplasticity. His research at UCSF demonstrated that the brain continues to rewire itself throughout life in response to experience and deliberate practice. This book makes the scientific case that it's never too late to change, adapt, and improve, which is foundational to the growth mindset argument in this chapter.

The Physiology of Performance Primer

Standard EEG frequency band classifications

The five brainwave states referenced in the cheat sheet (Gamma 30-100 Hz, Beta 13-30 Hz, Alpha 8-13 Hz, Theta 4-8 Hz, Delta 0.5-4 Hz) are based on standard electroencephalography classifications used in neuroscience research. Any introductory neuroscience textbook will cover these in detail.

Further Reading: Active Recovery

Chapter 11: The Recovery Mindset

Hans Selye and the General Adaptation Syndrome

Selye was the Hungarian-Canadian endocrinologist who, working in Montreal in the 1930s, first identified the body's universal stress response through his research on rats. His General Adaptation Syndrome (alarm, resistance, exhaustion) remains the foundational model for understanding how the body responds to and recovers from stress. His work underpins the entire argument that recovery is an active, strategic process rather than a passive one.

Patrick McKeown, *The Oxygen Advantage* (William Morrow, 2015)

McKeown's work on breathing and CO2 tolerance is the basis for the breath-hold test described in Tip 50. The test itself is adapted from his BOLT (Body Oxygen Level Test) protocol, which measures how well your body tolerates carbon dioxide as a marker of respiratory efficiency and nervous system regulation. His book is a practical guide to improving breathing patterns and is well worth reading alongside Nestor's *Breath*.

Kiviniemi et al., "Endurance training guided individually by daily heart rate variability measurements," *European Journal of Applied Physiology*, 2007

This study found that athletes who adjusted their training based on daily HRV (heart rate variability) readings outperformed those following fixed training plans, despite doing less total work. It's the evidence behind the

recommendation to use HRV as a daily readiness indicator rather than training on a rigid schedule, regardless of how your body is responding.

Chapter 12: Sleep

Chang et al., "Evening use of light-emitting eReaders negatively affects sleep, circadian timing, and next-morning alertness," *Proceedings of the National Academy of Sciences (PNAS)*, 2014

This Harvard Medical School study found that reading on a phone or tablet before bed delayed melatonin onset by up to ninety minutes compared to reading a physical book. It also reduced next-morning alertness and shifted the circadian clock. It's the most frequently cited study on screen use and sleep, and the reason the blue light recommendation exists.

Satchin Panda, *The Circadian Code* (Rodale Books, 2018)

Panda is one of the leading researchers in circadian biology, and his book explains how peripheral clocks throughout the body govern everything from digestion to immune function. It goes well beyond the sleep chapter and offers a practical framework for aligning your daily habits with your body's natural rhythms. If you want to understand why timing matters as much as duration, start here.

Chapter 13: Caffeine, Sugar & Alcohol

Michael Pollan, *This Is Your Mind on Plants* (Penguin Press, 2021)

Pollan quit caffeine while researching this book and documented the withdrawal and subsequent rediscovery of his natural baseline mental state. His observation that caffeine is "the most widely used psychoactive drug in the world, and the only one we routinely give to children" captures the extent to which we've normalised a substance that has real physiological effects. An eye-opening read.

Drake et al., "Caffeine effects on sleep taken 0, 3, or 6 hours before going to

bed," ***Journal of Clinical Sleep Medicine*****, 2013**

This study demonstrated that a moderate dose of caffeine taken even six hours before bed significantly reduced total sleep time and disrupted deep sleep. It's the basis for the recommendation to establish a firm caffeine cut-off rather than assuming an afternoon coffee won't affect your sleep.

"Alcohol use and mental health conditions among professional musicians," ***JMIR Mental Health***

This study found that seventy-three per cent of professional musicians reported using alcohol as a crutch for performance-related stress. It highlights the extent to which self-medication with alcohol is embedded in the culture of professional music, and it's a sobering statistic for an industry that often treats drinking as part of the job.

Ebrahim et al., "Alcohol and sleep: effects on normal sleep," ***Alcoholism: Clinical and Experimental Research*****, 2013**

This study showed that even moderate alcohol consumption reduced restorative sleep by up to thirty-nine per cent. While alcohol may help you fall asleep faster, it fundamentally compromises the quality of the sleep you get, which has direct implications for recovery and next-day performance.

Bloomberg, "Shift in Drinking Habits Wipes $830 Billion Off Alcohol Stocks," October 2025

This piece of financial reporting tracked the cumulative market value loss across roughly fifty listed drinks companies since June 2021. It reflects a broader cultural shift in attitudes towards alcohol, particularly among younger generations, and provides economic evidence that the trend is significant and accelerating.

Chapter 14: Nutrition, Hydration & Supplementation

Adherence to anti-inflammatory diet and C-reactive protein reduction, *British Journal of Nutrition*

This study found that following an anti-inflammatory dietary pattern for twelve weeks reduced C-reactive protein (a key marker of systemic inflammation) by twenty per cent. It's direct evidence that what you eat has a measurable effect on your body's inflammatory state, which matters for recovery, injury resilience, and long-term health.

Rae et al., "Oral creatine monohydrate supplementation improves brain performance," *Psychopharmacology*, 2003

While creatine is best known in the fitness world for its effects on strength and power, this study demonstrated that it also improves cognitive performance, particularly under conditions of sleep deprivation. For touring musicians dealing with broken sleep and high cognitive demands, this is a supplement worth understanding.

Losso et al., "Pilot study of tart cherry juice for the treatment of insomnia and investigation of mechanisms," *American Journal of Therapeutics*, 2018

This study found that tart cherry juice increased total sleep time by an average of eighty-four minutes in older adults with insomnia. Tart cherries are a natural source of melatonin and anti-inflammatory compounds, and while the study had a small sample, the effect size was notable enough to warrant attention.

Novak Djokovic's nutritional overhaul, 2011; see also Djokovic, *Serve to Win* (Zinc Ink, 2013)

Djokovic's discovery of a gluten sensitivity and subsequent dietary overhaul in 2011 coincided with his transformation from a top-five player to arguably the most dominant tennis player in history. His book details the changes he made and the impact they had. It's a high-profile case study in how nutrition can be the missing piece of the performance puzzle.

Popkin et al., "Water, hydration, and health," ***Nutrition Reviews*****, 2010**

This review established that as little as two per cent dehydration can impair cognitive performance, mood, and physical output. It's a frequently cited paper in hydration research and the basis for the recommendation to treat water intake as a non-negotiable part of your daily routine.

Public Health England / OHID, ***National Diet and Nutrition Survey*****, Rolling Programme**

The UK's ongoing national dietary survey consistently shows that forty to sixty per cent of adults have insufficient vitamin D levels. Given vitamin D's role in bone health, immune function, and mood regulation, this data supports the case for supplementation, particularly during the winter months and for musicians who spend long hours indoors.

Chapter 15: Recovery Tools

Dave Brailsford and the British Cycling "marginal gains" philosophy

Brailsford became performance director of British Cycling in 2003 and implemented the philosophy of finding one per cent improvements across every area he could think of. The results were historic: British Cycling went from one gold medal between 1908 and 2003 to eight gold medals at Beijing 2008 and eight more at London 2012, producing Tour de France winners in Bradley Wiggins and Chris Froome. It's one of the most compelling real-world examples of how small, stacked improvements produce extraordinary results.

Laukkanen et al., "Association between sauna bathing and fatal cardiovascular and all-cause mortality events," ***JAMA Internal Medicine*****, 2015**

This twenty-year Finnish study tracked over 2,300 men and found that those who used a sauna four to seven times per week had a forty per cent lower risk of all-cause mortality compared to those who used one once a week. It's one of the largest and longest studies on heat exposure and health outcomes, and it provides compelling evidence for incorporating regular sauna use into a recovery protocol.

Šrámek et al., "Human physiological responses to immersion into water of different temperatures," ***European Journal of Applied Physiology*****, 2000**

This study measured the body's response to cold water immersion and found that it triggered a two-hundred to three-hundred per cent increase in norepinephrine, a neurotransmitter involved in alertness, focus, and mood. It's the physiological basis for the benefits of cold exposure as a recovery and mental conditioning tool.

Wim Hof Method; for further reading see Scott Carney, ***What Doesn't Kill Us*** **(Rodale Books, 2017)**

Wim Hof popularised deliberate cold exposure and breathwork as a health practice, and there is now peer-reviewed research supporting several of his claims. Scott Carney's book is a well-written investigation into the science behind the method, written by a journalist who started out sceptical and ended up convinced.

Pearcey et al., "Foam rolling for delayed-onset muscle soreness and recovery," ***Journal of Athletic Training*****, 2015**

This study examined the use of foam rolling for managing DOMS and found measurable improvements in recovery markers. It supports the use of foam rolling as a practical, accessible recovery tool, though the mechanism may be different from what most people assume.

Cheatham et al., "The effects of self-myofascial release using a foam roll or roller massager on joint range of motion, muscle recovery, and performance," ***International Journal of Sports Physical Therapy*****, 2015**

A broader review of foam rolling research that found positive effects on range of motion and recovery with minimal impact on performance. It's a useful overview if you want to understand what foam rolling can and can't do, based on the available evidence.

"Mechanical forces in foam rolling and fascial tissue deformation," ***Journal of Sports Rehabilitation***

This study found that the mechanical forces generated during foam rolling are insufficient to physically deform fascial tissue, suggesting that foam rolling works primarily through neural input rather than tissue manipulation. It changes the way you think about what's actually happening when you roll, and it's a good example of how the mechanism behind a practice can be different from what we assume.

Kelly Starrett, *Becoming a Supple Leopard* (Victory Belt Publishing, 2013)

Starrett is a physiotherapist and mobility specialist whose book has become something of a bible in the functional fitness world. It provides detailed protocols for improving range of motion, addressing common movement restrictions, and maintaining tissue health. If you want a comprehensive reference for mobility work, this is it.

Active recovery and blood lactate clearance, meta-analysis, *Sports Medicine*

This meta-analysis examined the evidence for active recovery (light movement after training or performance) and its effect on blood lactate clearance and subsequent performance. It supports the idea that gentle movement after a show or training session is more effective for recovery than complete rest.

Phil Jackson, *Eleven Rings: The Soul of Success* (Penguin Press, 2013)

Jackson is the most decorated coach in NBA history, and his book details his unconventional approach to coaching, including having players practise Tai Chi on recovery days. His willingness to integrate mindfulness, movement, and rest into the routines of the world's most competitive athletes is a compelling precedent for the recovery philosophy in this book.

Chapter 16: Recovery in Context

Michael Gervais, *Finding Mastery* podcast and related work with Red Bull athletes and the Seattle Seahawks

Gervais is a performance psychologist who has worked with some of the most high-pressure athletes and organisations in the world. His concept of

"controlling the controllables" provides a practical framework for managing recovery and preparation when external circumstances (travel, schedules, venues) are outside your control. His podcast is an excellent ongoing resource.

Fitts et al., "Prolonged space flight-induced alterations in the structure and function of human skeletal muscle fibres," ***Journal of Physiology*****, 2010**

This study of ISS astronauts found that they lost up to twenty per cent of their muscle mass in just two weeks of zero gravity. NASA's response was to implement two hours of mandatory daily exercise, structured sleep protocols, and timed nutrition. It's an extreme example of what happens when the body isn't loaded, and it illustrates why deliberate physical maintenance matters even when you think you're "resting."

Chapter 17: Recovery for the Long Term

Christina Maslach, ***The Maslach Burnout Inventory Manual*** **(Consulting Psychologists Press)**

Referenced here for Maslach's identification of six organisational factors that drive burnout: workload, control, reward, community, fairness, and values. Understanding these factors allows you to diagnose which specific elements of your working life are pushing you towards burnout, rather than treating it as a vague, inevitable consequence of hard work. Also referenced in Chapter 10.

"Burnout in performing artists," ***Frontiers in Psychology***

Referenced here for the finding that sixty to seventy per cent of performing artists report burnout symptoms. Combined with Maslach's framework, it provides a way to understand why musicians burn out at such high rates and what can be done about it. Also referenced in Chapter 10.

James Clear, ***Atomic Habits*** **(Random House, 2018)**

Clear's central principle is that one per cent daily improvement compounds dramatically over time. His framework for building and maintaining habits

is practical, evidence-based, and directly applicable to the long-term conditioning approach discussed in this chapter. If you read one book on behaviour change, this is the one most people recommend.

Further Reading: Becoming an Athlete in Your Own Right

Patricia Linville, "Self-complexity and affective extremity," *Social Cognition*, 1985

Referenced again here in the context of identity fusion and the way musicians define themselves so tightly by their craft that anything outside it feels like a contradiction. Linville's research provides the academic basis for understanding why "athlete" might feel uncomfortable as part of your identity, and why broadening that identity is protective. Also referenced in Chapter 7.

Carol Dweck, *Mindset: The New Psychology of Success* (Random House, 2006)

Referenced again here in the context of treating physical and mental conditioning as learnable skills rather than innate traits. Dweck's growth mindset framework directly challenges the "talented or not" narrative that pervades music education. Also referenced in Chapter 10.

LIVE (Live music Industry Venues & Entertainment), *Annual Report 2024*

Referenced again here for the record-breaking figures: £6.68 billion in consumer spending (up roughly ten per cent year-on-year and £2 billion above 2019 levels), with 23.5 million music tourists. These numbers support the argument that the live sector is bigger than ever and that durability is the key to capitalising on the opportunities it presents. Also referenced in Part 1.

Live Nation, *Annual Report 2024*

Live Nation reported over 150 million concert attendees globally in 2024. Combined with the LIVE UK data, it paints a picture of a live music industry at an unprecedented scale, reinforcing the case that the musicians who thrive will be the ones who can sustain their performance over the long term.

Goldman Sachs, *Music in the Air* 2025

Goldman Sachs' annual *Music in the Air* report is the investment bank's benchmark forecast for the global music industry. The 2025 edition is the source for the projection that the industry will almost double in value over the next ten years, from $105 billion in 2024 to nearly $200 billion in 2035. It also includes figures on live music revenues growing from $34.6 billion in 2024 to $67.1 billion by 2035.

About the Author

Chris Draper is a professional drummer, personal trainer, performance coach, teacher, and the founder of Performance Conditioning.

He has spent over two decades in the music industry, working for a number of years with The Ronnie Scott's All Stars on a regular basis, and as the chair holder on the West End production of Hamilton. He has also recorded extensively for TV and film, with his drums being heard across every major streaming platform and in cinemas worldwide.

In 2023, Chris suffered two traumatic brain injuries that fundamentally changed how he understood the relationship between a musician's body, their mind, and their ability to perform. Performance Conditioning was born out of these realisations. Chris now holds multiple qualifications in personal training, exercise science, and strength and conditioning, and has spent years studying the science of human performance, injury prevention, mental conditioning, neuroscience, and active recovery as it applies to the unique demands musicians face. He now coaches professional musicians around the world through his online programmes and one-to-one work, helping them build the physical and mental infrastructure to thrive, not just survive, in an increasingly challenging industry.

He lives in the UK with his wife and two daughters, still plays the drums every day at Hamilton in London's West End, and maintains that the church organ is an underrated instrument.

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