The Diabetes Handbook

What strategies can help you manage your condition better? Understanding your options is key

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A Clear and Simple Guide for Anyone Who Just Wants to Understand

What This Book Is and Who It Is For

This book is for anyone who has been told they have diabetes and then sent home with a leaflet they do not understand. It is for the husband or wife who wants to know what their partner is going through. It is for the friend who wants to help but does not know what to say. And it is for anyone who has been living with diabetes for years but has never had it explained in plain English.

You will not find complicated medical words in these pages unless there is no other way to say something. When a medical word does appear, I explain it straight away. You should not need a biology degree to understand your own body.

There are two main types of diabetes, and most of this book talks about both. There is a short section on the other types as well, so you know they exist and can recognise the names if you hear them. But type 1 and type 2 are where the focus sits, because they are what most people are dealing with.

If you have ever sat in a doctor's office and nodded along while understanding almost nothing, this book is for you. If you have ever googled your condition at midnight and ended up more scared than when you started, this book is for you too. My goal is simple: by the last page, you should feel like you actually understand what is happening inside your body.

I am not a doctor. I am a fitness professional who has spent over three decades working with people who have all sorts of health conditions. Many of them had diabetes. Many of them were confused. Many of them had been given information that was technically correct but impossible to use in real life. So I went away and learned as much as I could, and I have been helping people ever since.

This book is written the way I would talk to you if you walked into my gym and sat down for a cup of tea. No jargon. No fear tactics. No talking down to you. Just clear information, explained properly, in a way that makes sense.

You do not need to read this book cover to cover if you do not want to. You can dip in and out. You can skip to the parts that matter most to you right now. There is no wrong way to use it. The only thing I ask is that you give yourself permission to learn at your own pace.

A lot of people pick up a book about diabetes and feel exhausted before they even start. The pages are full of numbers, warnings, and words that seem designed to confuse. I have deliberately written this book so that does not happen. Each section builds on the one before it, but you can also jump straight to whatever you need most.

If you are newly diagnosed, you might want to start at the beginning and work your way through. The early chapters explain what diabetes actually is and what is happening in your body, which gives you a foundation for everything else. Once you understand that, the rest makes much more sense.

How to Use This Book Without Feeling Overwhelmed

If you have had diabetes for a while and just want practical advice, you might skip ahead to the chapters on movement and managing setbacks. You already know the basics. What you might need is help turning knowledge into action, and that is exactly what the later sections are for.

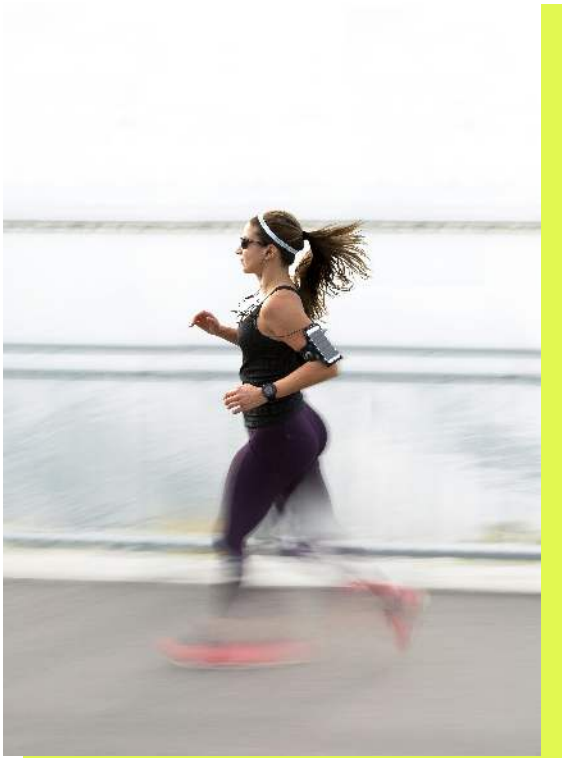
If you are a friend or family member trying to support someone, you can read the whole thing or just the parts that help you understand what your person is going through. Either way, you will come away better equipped to help without accidentally making things worse.

Each chapter ends with something useful. Sometimes it is a summary of the key points. Sometimes it is a question to ask your doctor. Sometimes it is a practical tip you can try straight away. None of it is designed to add to your to-do list. It is there to make your life easier, not harder.



I have also kept the tone conversational on purpose. When I write about blood sugar or medication, I write the way I would explain it to a friend. That means short sentences. That means everyday examples. That means no showing off with fancy language. If something sounds complicated, that is my fault, not yours, and I have tried hard to avoid it.

One more thing: you are allowed to take breaks. You are allowed to put this book down and come back to it later. You are allowed to read the same paragraph three times if you need to. Diabetes is a long game, and understanding it is not a race. Take your time. There is no exam at the end.



By the time you finish this book, you will understand what diabetes is and what it is not. You will know the difference between type 1 and type 2, and you will have a basic awareness of the other types as well. You will understand what blood sugar means, why it matters, and what the current NICE ranges are, explained in a way that actually sticks.

You will understand what insulin is, how it is made, and how it works in your body. You will know the main medications used to treat diabetes and what each one does. You will not be a pharmacist, but you will be able to have a proper conversation with yours.

Most importantly, you will understand how movement affects your condition. This is the part I care about most. Exercise is one of the most powerful tools you have, and it is also one of the most misunderstood. By the end, you will know what the guidelines actually say, how to apply them to your own life, and how to stay safe while doing it.



The Promise of This Book

You will also know what to do when things go wrong. Because they will go wrong sometimes. Blood sugar will spike when you least expect it. Motivation will disappear. You will have days when your body refuses to cooperate. That is normal, and this book will help you handle it without panicking or giving up.

This is not a book about curing diabetes. There is no cure, at least not yet. This is a book about understanding it, living with it, and not letting it run your life. That is a realistic goal, and it is one you can absolutely achieve.

The other thing I want you to take away is confidence. Not false confidence, not pretending everything is fine when it is not. Real confidence that comes from actually knowing what is going on in your body and what you can do about it. That kind of confidence changes everything.

So that is the promise. Clear information, practical advice, and a friendly voice. If that sounds like what you need, turn the page and let us get started.

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Introduction: Why I Wrote This Book

The Day Someone Left My Gym in Tears

It was a Tuesday evening, one of those long ones where the last class of the day empties out and you end up packing away equipment you have been putting off for three weeks. I was at the studio, stacking the last of the chairs, when I heard the door go. Not a normal door go. A kind of slow, heavy door go, like whoever was on the other side had to think about it first.

A woman I will call Annette came in. She was in her sixties, lived locally, had been a member on and off for years. She had been to her GP that afternoon and walked out with a diagnosis of type 2 diabetes and a paper bag of leaflets. She sat down on one of the chairs by the wall and let out a long breath. Her eyes were glassy, but she held it together.

She said to me, and I have never forgotten the way she said it, "I do not understand anything they told me. I do not know what I am supposed to eat. I do not know if I can still come here. I do not know where to start." Four sentences. Four things that she should never have had to say in the same breath.



I pulled up a chair next to her and we talked for about an hour. I did not do anything clever. I just said things back to her in normal language. I said what diabetes is. I said what the numbers on the leaflet actually mean. I said that yes, she could absolutely still train here, and that nothing about this meant stopping. We would just think about it properly, together, one step at a time. By the time she stood up to go, she was smiling. She walked out lighter than she came in.

That night I could not sleep. I kept thinking about how many Annettes there are. How many people walk out of a doctor's office with a diagnosis, a pile of paper, and a head full of noise, and have nobody to translate it for them. Not because the doctors are bad. They are not. They are rushed, they are brilliant, and they have about eleven minutes to do about three hours of work. The system is the problem, not the people in it.

I have worked in this industry for over thirty years. I run my own gym, Club-K Health & Fitness, which I opened in 2014. Over that time I have done GP Exercise Referral, I have specialised in diabetes, cardiac and pulmonary rehab, long term neurological conditions, and back pain management. I also run a clinic where I work as a sports therapist.

Something I noticed a long time ago is that I ended up being the person people asked the questions they did not want to ask their GP. Because I was not in a white coat, and because I was not in a hurry, and because I was going to see them again next week so there was no urgency to it. Many people come to me with different medical conditions so i have gone away and leant about them. Diabetes is the one I kept coming back to.

So this book is my attempt to be there for the people who are not lucky enough to have somebody in their corner explaining it all in normal words. Not a medical textbook. Not a lecture. Just a plain, clear, friendly walk through what this condition actually is, and what you can actually do about it.

What Most People Are Told, and What They Actually Hear

Here is what tends to happen. You go in for a routine blood test, or you go in because you have been feeling tired and thirsty and you have been up to the toilet three times a night. You sit down. The GP says the word diabetes. And then a whole lot of other words come at you very quickly.

HbA1c. Fasting glucose. Metformin. Blood glucose monitoring. Retinopathy screening. Diabetic foot check. Cardiovascular risk. Lifestyle modification. You nod along because that is what you do when a professional is telling you things, and you leave with a leaflet and a follow up appointment and a feeling in your stomach like you have just been told off for something you did not do.

What most people actually hear, in that moment, is something like this: your body is broken, it is going to get worse, and it is largely your fault. None of that is true, or at least none of it is the whole truth, but that is what lands. That is the message that gets through the noise.

Then the leaflet turns out to be written by somebody who has forgotten what it feels like to not know. It says things like "maintain glycaemic control" and "risk of macrovascular complications" and "adopt a balanced dietary approach." Every single one of those phrases could be said in normal English. Word for word. There is no need for it to sound like that.

I want to be fair here, because I am not here to bash the NHS or anyone who works in it. The people doing this work are under huge pressure and they care enormously. But the plain truth is that nobody has time to sit down with you for an hour and explain the mechanics. Nobody has time to show you how your food, your movement, your medication, and your blood sugar all fit together. That is the gap this book tries to fill.

And it is not just the newly diagnosed either. I have had people in my gym who have had type 2 for eight years and still could not tell me what metformin was actually doing. Still could not tell me why their blood sugar went up after a bowl of porridge but not after a steak. Still flinched when they heard the word hypo, because nobody had ever explained to them what one actually is.

Those people were not stupid. Every single one of them was smart and capable and had handled things in their life that were far more complicated than this. They had just never been given the information in a form they could use. There is a huge difference between not understanding something and never having been told it properly.

That is the whole reason this book exists. Somebody needs to just say it plainly. So that is what I have tried to do.

You Do Not Need a Medical Degree to Understand Your Own Body

I want to get one thing clear right at the start. Understanding your diabetes does not require you to become a doctor. It does not require you to learn Latin. It does not require you to be able to read a research paper.

There are really only a handful of ideas you need to have in your head. What is happening in your body when your blood sugar goes up. Why it goes up and down during the day. What insulin does and what your medication is doing about it. What food does to your numbers and why. What exercise does to your numbers and why. What a hypo and a hyper feel like so you can spot them coming. Those are the big ones. There are plenty of details beyond that, but those are the load bearing walls.

Once you have those ideas in your head, the rest of it starts to click into place. You stop feeling like diabetes is a fog that descends on you at random. You start to see the pattern. And once you can see the pattern, you can start doing something about it.



I have taught this to people in their seventies who told me at the start that they were not clever enough for all this. I have taught it to people who left school at fifteen and had never opened a book of any kind since. Every one of them got it. Because it is not complicated. It has just been explained badly.

Here is the thing I would say to anyone who is scared right now, reading this with a fresh diagnosis sitting on the kitchen table. Your body is not broken beyond repair. It is doing something that a huge number of other bodies are also doing, and we know a great deal about how to manage it. You are not the first person to sit in this chair, and you will not be the last, and the people who came before you have lived long, active, full lives with it.



You are going to understand this. That is the promise. Not that it is easy, because it is not always easy, and not that you will never have a bad week, because you will. But you are going to understand it, and once you do, you will be in charge of it rather than the other way around.

What I am going to ask of you is simple. Read this book from front to back if you can, because each part builds on the one before it. Do not skip to the exercise sections and think the earlier bits do not matter, because they do, they are what makes the exercise bits make sense. And if something does not land the first time, go back and read it again. That is not a failure. That is just how learning works.

What This Book Covers, and What It Does Not



Let me tell you what is in here, so you know what you are getting. This is a book about understanding diabetes in plain conversational English. It is aimed at people who do not know much about it. It is not aimed at healthcare professionals. It is not aimed at people who already know all this inside out. If that is you, this is not the book for you, and there is no shame in that.

It is mainly about type 1 and type 2 diabetes, because those are the two far and away most people are dealing with. There is a quick tour of the other types, gestational, prediabetes, LADA, MODY, type 3c, so that you recognise the names if you hear them and know roughly what they mean, but I am not going to go deep on any of them. Type 1 and 2 are where the bulk of the space goes.

We are going to cover what diabetes actually is at the level of the body, which is where we start. We are going to cover blood sugar, what it is, why it moves during the day, and what the current NICE ranges look like. We are going to cover hypos and hypers, what they feel like and what to do about them. We are going to cover insulin, what it is and how it is made and why that matters. We are going to cover the main medications and what each one is actually doing in your body.

And then we get to the big one, which is exercise. That is the part I care most about and it is the part I have probably spent the most years thinking about. How movement affects blood sugar. How your medication interacts with exercise. How nerve damage changes what you should and should not be doing. What the World Health Organization, the ACSM, and NICE actually recommend, translated into normal English and turned into something you could actually schedule into a week.



There is a chapter on what to do when things go wrong, because they will, and I do not want you caught out. Hypos that come on hours after exercise. Days when your blood sugar is just high for no reason you can identify and you feel rotten. Illness and injury and how they can knock everything sideways. The mental side of it, because that is real and nobody should pretend it is not. And what to do when you actually need to speak to somebody.

And there is a chapter on the long game. Living with this for decades rather than for this month. Shifting how you see yourself. Building habits that actually stick through holidays and stress and the weeks where everything goes wrong. Working with your healthcare team as a partner rather than just doing what you are told. Keeping movement in your life for the rest of your life rather than for the next six weeks.

What this book is not is a replacement for your GP, your diabetes nurse, or your specialist. It is not medical advice for your specific situation, because I have never met you and I do not know your history. What it is, is the explanation that you should have been given at the start, so that the conversations you have with the people who are treating you become a hell of a lot more useful.

That is the deal. Let us get into it.

A Quick Word About How I Am Going to Talk to You

One last thing before we get going, which is about the voice I am going to use. I am not going to write like a textbook. I am going to write the way I talk, which is to say, plainly, and with the occasional sentence that runs on a bit. If a medical word is genuinely the right word and there is no easier way to say it, I am going to use it, but I am going to explain it the moment I do. If there is a plain English word for something, I am going to use the plain English word.

I am not going to hide behind clever phrasing. I am not going to use jargon to make this feel more serious than it needs to be. If I ever write something that sounds like it came off the back of a leaflet, you have my permission to be annoyed with me.

I am also not going to talk down to you. You are an adult and you are perfectly capable of understanding your own body. What has happened up until now is not that you are not smart enough, it is that nobody has taken the time to explain it properly. That is on the system, not on you, and it is what this book is here to fix.

I am going to explain it in this order for a reason. What diabetes is, then your medication and insulin, then exercise, then what to do when things go wrong, then the long game. Each part builds on the one before. If you read it in order, the exercise chapter will make far more sense than if you dive in cold.

Finally, I am going to be honest with you about what I am and what I am not. I am a fitness professional, not a doctor. I have spent over thirty years in this industry and I have spent a good chunk of that time working with people who have diabetes, learning as much as I could about the condition so I could help them train safely and well. I have done GP Exercise Referral. I have specialised in diabetes, cardiac and pulmonary rehab, and long-term neurological conditions. I am going to share what I know. Where there is something I genuinely cannot help you with, I am going to say so and point you in the direction of someone who can.

That is how this is going to go. Plain English, no lecturing, no scare tactics, no pretending this is easy when it is not. Just what you need to know, in the order you need to know it, from someone whose job is not to tell you off but to help you move forward. Let us begin.

03

Chapter 1: What Diabetes Actually Is

The Two Main Characters: Type 1 and Type 2

Priya sat at her kitchen table with a pile of leaflets her GP had handed her. She is 34, a primary school teacher, and two weeks ago she was told she has type 2 diabetes. The leaflets used words like glycemic index, HbA1c, and insulin resistance. She read the same sentence four times and still could not tell you what it meant. So she did what a lot of people do. She put the leaflets in a drawer and tried not to think about it.

That drawer is where understanding goes to die. And i get it. When you are handed a diagnosis and a stack of paper covered in medical laguage, the easiest thing in the world is to close the drawer and hope the whole thing sorts itself out. But it does not sort itself out. Not because you are lazy or in denial, but because nobody has actually explained what is going on inside your body in words that make sense.

So lets start with the two main characters. Type 1 and type 2. If you understand these two, you understand about 90 percent of what diabetes is. Everything else is a variation on a theme.

Type 1 diabetes is an autoimmune condition. That means your own immune system, which is supposed to protect you from infections, got confused and attacked the cells in your pancreas that make insulin. Those cells are called beta cells, and once they are destroyed they do not come back. So a person with type 1 diabetes cannot make insulin at all, or makes so little it might as well be none. This is not caused by eating too much sugar or being overweight or any of the things people whisper about. It just happens. It can happen at any age, though it is most commonly diagnosed in children, teenagers, and young adults. And every single person with type 1 diabetes needs insulin from outside their body to stay alive. Not to feel better. To stay alive.

Type 2 diabetes is a different animal altogether. In type 2, your pancreas is still making insulin. The problem is that your body has stopped responding to it properly. Think of it like this. Insulin is the key that unlocks your cells so sugar can get in and be used for energy. In type 2 diabetes, the lock has become stiff. The key still turns, but it takes more and more effort. So your pancreas pumps out more and more insulin to force the lock. Eventually the pancreas gets tired, the locks get stiffer, and blood sugar starts to rise because the sugar cannot get into the cells where it needs to be.

Type 2 is more common in adults, but i am seeing it in younger and younger people now. It is linked to things like genetics, age, weight, and lifestyle, but that does not mean it is your fault. Plenty of people with type 2 diabetes are not overweight at all. Plenty of people who are overweight never get it. The body is complicated and genetics play a huge role that nobody can control.

Here is the part that matters for your day to day life. Type 1 is managed with insulin, always. Type 2 can be managed with diet and exercise alone in the early stages, or with tablets, or with insulin, or with a combination of all of those. The treatment path is different. But the goal is the same for both. Keep your blood sugar in a range that keeps you feeling well now and protects your body for the long haul.

The Other Types: A Quick Tour

I said type 1 and type 2 are the two main characters, and they are. But there are a few supporting cast members you might hear about, and i do not want you to be caught off guard if your doctor mentions one of them. This is a quick tour, not a deep dive. Think of it as knowing the names of your neighbours, not their life stories.

Gestational diabetes is diabetes that develops during pregnancy. It usually shows up around the 24th to 28th week and it happens because pregnancy hormones can make your cells more resistant to insulin. For most women it goes away after the baby is born. But it is worth knowing that having gestational diabetes does raise your risk of developing type 2 diabetes later in life, so it is a good idea to keep an eye on things after the birth.

Prediabetes is exactly what it sounds like. Your blood sugar is higher than normal but not high enough to be called diabetes yet. It is a warning sign. A yellow light, not a red one. And here is the hopeful part. Prediabetes can often be reversed with changes to diet and exercise. This is one of the few moments in health where you get a genuine second chance, and it is worth taking seriously.

LADA stands for latent autoimmune diabetes in adults. It is a slow-moving form of type 1 diabetes that shows up in adulthood. People with LADA are often misdiagnosed as type 2 at first because of their age, but over months or years it becomes clear that their body is attacking its own insulin-producing cells, just like in type 1. It is not common, but it is one of the reasons your doctor might do extra tests if your type 2 diagnosis does not seem to fit.

MODY stands for maturity onset diabetes of the young. It is a group of inherited forms of diabetes caused by a single gene mutation. It runs in families and is often diagnosed in people under 25 who do not fit the typical type 1 or type 2 picture. It is rare. Most people with diabetes do not have it. But if diabetes runs strongly in your family and the usual treatments are not working as expected, it is something a specialist might look into.

Type 3c diabetes is caused by damage to the pancreas from something else, like pancreatitis, pancreatic cancer, cystic fibrosis, or surgery. The pancreas gets damaged, so it cannot make enough insulin or enough of the digestive enzymes it is supposed to produce. This one is managed with insulin and sometimes with enzyme tablets to help with digestion.

If you have been diagnosed with one of these less common types, the core principles in this book still apply. Your blood sugar still matters. Your medication still matters. Movement still matters. The names change, the fundamentals do not.



Blood Sugar Levels and the NICE Ranges

Blood sugar, or blood glucose, is the amount of sugar floating around in your bloodstream at any given moment. It is not good or bad. It is just a measurement. Your body needs some sugar in the blood because sugar is fuel. Every cell in your body runs on it. The problem with diabetes is not that sugar exists. The problem is that too much of it stays in the blood instead of getting into the cells where it is needed.



Your blood sugar goes up and down all day long. It goes up when you eat, especially when you eat carbohydrates. It goes up when you are stressed, because stress hormones tell your liver to release sugar for energy. It goes up when you are ill or in pain. It goes down when you move around, when you sleep, and when your body releases insulin to move sugar into your cells. In a person without diabetes, this happens smoothly and automatically. In a person with diabetes, the system is either missing insulin or not responding to it properly, so the sugar hangs around in the blood longer than it should.

Doctors measure blood sugar in two main ways. The first is a snapshot. You prick your finger, put a drop of blood on a test strip, and you get a number. That number tells you what your blood sugar is right now, in this moment. The second is a longer-term picture called HbA1c. This is a blood test that shows your average blood sugar over the past two to three months. It is like a report card for your overall control, not a single moment.



In the UK, NICE, which stands for the National Institute for Health and Care Excellence, sets the targets that doctors and nurses use. These are guidelines, not rules carved in stone, and your own targets might be different depending on your age, your type of diabetes, and other health conditions. But here are the general numbers so you know what people are talking about.

For adults with type 1 diabetes, NICE recommends aiming for an HbA1c of 48 mmol/mol or lower. For adults with type 2 diabetes, the target is also 48 mmol/mol or lower, though for some people a slightly higher target of 53 mmol/mol is more realistic if they are at risk of severe hypos or have other conditions. If you are using a glucose meter to check your blood sugar day to day, the general targets are 5 to 7 mmol/L before meals and 4 to 7 mmol/L two hours after meals for type 1, and 4 to 7 mmol/L before meals for type 2. Fasting levels, which is your blood sugar first thing in the morning before you eat, are usually aimed at 4 to 7 mmol/L.

I know those numbers look like alphabet soup right now. But here is what they really mean. A fasting level of 4 to 7 is a calm, steady place. A reading of 8 or 9 is a nudge to pay attention. A reading of 12 or 15 is a push to act. A reading below 4 is a hypo, and you need to treat it right away. A reading above 15 is a hyper, and you need to understand why it is happening and what to do about it.

Do not try to memorise every number. Just remember this. The range is not a pass or fail. It is a map. The numbers tell you where you are so you can decide where you want to go next. And your targets belong to you, not to the person next to you in the waiting room. If your targets are different, ask why. That question alone will make you more informed than most people walking out of a GP appointment.



Hypos and Hypers: The Two Extremes

If you have diabetes, you will hear the words hypo and hyper a lot. They sound similar, and that confuses people. So let me make them impossible to mix up. Hypo means low. Hyper means high. Hypo is short for hypoglycemia. Hyper is short for hyperglycemia. Low is the one that can get dangerous fast. High is the one that wears you down over time.

A hypo happens when your blood sugar drops below 4 mmol/L. It can happen for several reasons. You took your insulin or your tablets and then did not eat enough. You exercised more than usual without adjusting your medication or your food. You drank alcohol, which can block your liver from releasing sugar when you need it. Or it just happened, because diabetes does not always follow the script. Hypos are more common in people who use insulin or certain tablets called sulfonylureas, because those medications actively lower blood sugar.

A hypo feels different for everyone, but the most common signs are shaking, sweating, a pounding heart, hunger, tingling lips, and a sudden feeling of anxiety or irritability. If it gets worse, you can feel confused, dizzy, and struggle to think clearly. The key with a hypo is speed. You treat it immediately, you do not wait to see if it passes, and you do not push through it. The standard treatment is 15 to 20 grams of fast-acting sugar. That is roughly four glucose tablets, or a small glass of fruit juice, or a tablespoon of honey. Then you wait 15 minutes and test again. If you are still below 4, you treat again. Once you are back above 4, eat a small snack with some slow-release carbohydrate to stop it dropping again.

A hyper is the opposite. Your blood sugar is too high. There is no strict cut-off that says here is where a hyper begins, but most people start to feel it around 12 to 15 mmol/L and above. The signs are thirst, needing to pee more often, tiredness, blurred vision, and a general feeling of being off. If it goes very high, you can feel sick, breathless, and confused. Hypers can happen because you ate more than usual, because you missed a dose of medication, because you are ill or stressed, or because your body just is not responding the way it normally does.

The tricky thing about hypers is that they are slower and sneakier than hypos. You might not notice one creeping up until you have been high for hours. And when you are high, you feel awful, but you are not in the same immediate danger as you are with a severe hypo. The treatment is to drink plenty of water, check your blood sugar regularly, and if you take insulin, follow your sick day rules or correction dose plan. If you use a glucose meter and you are consistently running high for no clear reason, that is a conversation to have with your diabetes team.

The reason i am going into this in detail is that people with diabetes often fear the wrong thing. They fear the high numbers because those are the ones that show up on the test and get talked about at appointments. But a severe hypo can put you in hospital or worse, and it can happen in minutes. A hyper is a slow burn. Both matter. But knowing the difference means you know which one to act on immediately and which one to manage carefully over the next few hours.

If you take one thing from this section, make it this. Never ignore a hypo. And never panic about a hyper. Treat the low fast. Investigate the high calmly. Your body is telling you something either way.

How Food and Sugar Really Affect You

Food is where most of the confusion starts. People hear the word sugar and think that is the whole story. It is not. Sugar is one type of carbohydrate, but carbohydrates come in many forms, and they all affect your blood sugar in different ways and at different speeds. If you understand carbohydrates, you understand food and diabetes.

Carbohydrates are the nutrient your body breaks down into glucose. Bread, pasta, rice, potatoes, fruit, milk, yoghurt, cake, biscuits, fizzy drinks, and beans all contain carbohydrates. When you eat them, your digestive system turns them into glucose, which then enters your bloodstream. In a person without diabetes, insulin is released to move that glucose into the cells, and blood sugar stays steady. In a person with diabetes, that process is either missing or sluggish, so blood sugar rises more than it should.

Not all carbohydrates are equal. There are fast carbohydrates and slow carbohydrates. Fast ones, like white bread, sugary drinks, sweets, and refined cereals, break down quickly and send your blood sugar up fast. Slow ones, like whole grains, oats, beans, lentils, and most vegetables, break down more gradually and cause a gentler rise. Fibre is the key player here. Fibre slows down digestion, which means sugar enters the bloodstream more slowly. That is why a bowl of porridge with nuts and seeds will affect your blood sugar differently from a bowl of sugary cereal, even though both are carbs.

Portion size matters just as much as the type of food. A small portion of white rice will have less impact than a large portion of brown rice. This is not about cutting out entire food groups. It is about understanding that the amount of carbohydrate you eat at one sitting will show up in your blood sugar numbers later. You do not have to be perfect. You just have to be aware.

Timing matters too. Eating three balanced meals at regular times helps keep blood sugar steadier than skipping meals and then eating a huge one late at night. If you take insulin, you are probably already counting carbohydrates and matching your dose to what you eat. If you take tablets, the timing of those tablets relative to your meals matters just as much. Some tablets are designed to be taken with food, some before, some after. Check with your pharmacist or nurse if you are not sure.

Sugar itself, the white stuff you put in tea or the sugar in a can of cola, is just a fast carbohydrate. It hits your bloodstream quickly and hard. That does not mean you can never have it. It means you should know what it does and plan for it. If you are going to have a piece of birthday cake, enjoy it. Just know that your blood sugar will rise, and think about what that means for your medication and your activity that day.

The most helpful thing you can do is learn how your own body responds to the foods you actually eat. Not the foods in a book or on a diet plan, but the foods on your plate. Test your blood sugar before and two hours after a meal. Write it down. Do that for a couple of weeks and you will have a personal map of your own blood sugar responses that no textbook can give you. That map is worth more than any general advice, because it is yours.



04

Chapter 2: Insulin and Medication, Explained Simply

What Insulin Is and How It Is Made

Insulin is a hormone. That word gets used a lot but not many people stop to think about what a hormone actually is. Think of it as a chemical messenger. Your body makes it, sends it into the bloodstream, and it tells certain cells what to do. Insulin's message is simple and incredibly important: it tells your cells to take sugar out of your blood and use it for energy or store it for later. Without that message getting through, sugar just sits in your blood, and that is when the trouble starts. If you have type 1 diabetes, your body stopped making insulin. If you have type 2, your body either does not make enough or the insulin it makes does not work properly anymore. Either way, insulin is the centre of the whole story.

In a healthy body, insulin is made in the pancreas. The pancreas is a long, flat organ that sits behind your stomach, and it does two big jobs. One job is making digestive juices for your gut. The other job, the one we care about here, is making insulin in tiny clusters of cells called beta cells. When you eat something, especially something with carbohydrates, your blood sugar starts to rise. The beta cells notice that rise and release insulin. It is automatic, it happens every time you eat, and most people never give it a second thought. That is exactly how it is supposed to work.

Now, insulin as a medication is a different thing altogether. It has to be made in a laboratory because you cannot just extract enough of it from another animal anymore, and you would not want to. The first insulin used for treatment came from cows and pigs back in the 1920s. It saved lives. It was also not perfect. Some people reacted to it, and the supply was limited. So scientists worked out how to make insulin in a lab by putting the human insulin gene into bacteria or yeast. Those tiny organisms then produce insulin the same way they would produce any other protein. It gets collected, purified, and turned into the insulin you inject. Same hormone, made in a factory instead of a pancreas.

That shift from animal insulin to lab-made human insulin changed everything. It meant supply was no longer a problem. It meant the insulin was a closer match to what your own body would make. It also meant scientists could tweak the insulin to make it act faster, slower, or somewhere in between. That is why you see the words rapid-acting, short-acting, intermediate-acting, and long-acting on insulin pens and vials. They are all insulin, just designed to work at different speeds and for different lengths of time. Your healthcare team picks the combination that fits your body and your day.

Why does this matter day to day? Because knowing insulin is not just a needle you pick up when things go wrong. It is a replacement for something your body is supposed to do on its own. In a healthy body, the pancreas releases a small amount of insulin all day long in the background and a bigger burst when you eat. When you inject insulin, you are trying to copy that pattern. You are not curing anything. You are stepping in and doing a job your body cannot do for itself. Once you see it that way, the timing of injections and the choice of insulin types starts to make a lot more sense.

There is also a myth worth clearing up. Insulin does not cause diabetes. It does not make diabetes worse. Some people worry that starting insulin means they have failed or that their condition has moved to a more serious stage. That is not the case. If your body needs insulin and you give it insulin, you are simply replacing something that is missing or not working. That is not failure. That is good management, the same way wearing glasses is good management for your eyes.

One more thing. Insulin is a protein, which means it would be broken down by your stomach if you swallowed it. That is why it is injected or delivered through a pump. It has to get into your bloodstream without going through your digestive system first. Some people are nervous about injections at the start. That is completely normal. But the needles are tiny, the pens are simple to use once you have been shown, and most people get comfortable with it much faster than they expect.

So that is insulin in a nutshell. A messenger hormone, made by your pancreas in a healthy body, made in a lab for treatment, and used to replace or support something your body is not doing on its own. It is not a punishment. It is not a sign that things are getting worse. It is one of the most important tools in diabetes care, and understanding what it is takes a lot of the fear out of it.



If you have type 2 diabetes, there is a good chance you have been handed a prescription for a tablet at some point. If you have type 1, you may have wondered why other people with diabetes talk about tablets when you have always been on insulin. The reason is that type 2 diabetes can be managed in several different ways, and each medication does something slightly different. It helps to know what each one is actually doing rather than just swallowing it because someone told you to.

Tablets and Injections: What Each Medication Does



Metformin is usually the first tablet people are given. It has been around for a long time, it is cheap, and it works. What it does is help your body respond better to the insulin you are already making. Remember, in type 2 diabetes the problem is often not that there is zero insulin, it is that the insulin is not doing its job properly. Metformin makes your cells more sensitive to insulin, so the insulin you have goes further. It also tells your liver to release less sugar into your blood between meals. You take it with food to reduce stomach upset, and for most people it is well tolerated once they get used to it.

Sulfonylureas are another older class of tablet. Names like gliclazide and glipizide. What they do is tell your pancreas to release more insulin. They are like a little push on the beta cells to get them working harder. That can be helpful if your pancreas is still making some insulin but not enough. The catch is that they can cause hypos, because they are forcing insulin out whether your blood sugar needs it or not. That is worth knowing if you are active or if you sometimes skip meals.



Then there are the newer medications. GLP-1s and SGLT2 inhibitors are the two big families you might hear about. GLP-1s, things like semaglutide and dulaglutide, mimic a hormone your gut releases when you eat. They slow down digestion, make you feel fuller for longer, and help your pancreas release insulin only when your blood sugar is high. That last part is important because it means they are much less likely to cause hypos on their own. SGLT2 inhibitors, things like empagliflozin, work in a completely different way. They tell your kidneys to dump extra sugar out of your blood and into your urine. You literally pee some of the sugar away. They also have benefits for heart and kidney health, which is why they are being used more and more.

Insulin is the other big category, and unlike the tablets, it is always injected. In type 1 diabetes, insulin is not optional, it is essential. In type 2 diabetes, insulin may be added later if tablets are not enough, or if blood sugar needs tighter control. Insulin comes in different speeds and strengths, and your healthcare team will match the type to your needs. Some people take one long-acting injection a day. Some take a rapid-acting injection with meals. Some take both. It depends on your body and your routine.

What ties all of these together is a simple idea. Every diabetes medication either helps your insulin work better, helps your body release more insulin, or replaces insulin altogether. That is it. Once you know which camp your medication falls into, you understand what it is doing and why your doctor chose it. Metformin helps your insulin work better. Sulfonylureas push your pancreas to release more. GLP-1s help your insulin work better and slow things down. SGLT2 inhibitors take sugar out through your kidneys. Insulin replaces what is missing. You do not need to memorise every drug name. You just need to know which job your medication is doing.

That framework also helps when you hear about new medications or combinations. If someone tells you about a new drug, you can ask yourself: is this helping insulin work, pushing more insulin out, or replacing insulin? That question covers almost everything on the market. It also helps you have better conversations with your GP or nurse. Instead of nodding along, you can ask why one type is better for you than another, or whether a different approach might suit your lifestyle better.



One thing worth saying is that medication is not a sign that you have failed at managing your diabetes through diet and exercise. Type 2 diabetes is a progressive condition for many people. That means the pancreas may gradually produce less insulin over time, no matter how well you look after yourself. Taking medication is not giving up. It is adapting. It is using the tools available to keep your blood sugar in a healthy range and protect your long-term health.

The One Big Idea: Helping or Replacing Insulin

If you take nothing else from this chapter, take this. Every diabetes medication comes down to one of two jobs. Either it helps your insulin work better, or it replaces insulin altogether. That is the whole picture. Once you understand that, you can look at any prescription, any new drug your doctor mentions, any combination of tablets and injections, and know exactly where you stand.

Helping insulin work better covers a lot of ground. Metformin helps your cells respond to insulin more effectively. Sulfonylureas push your pancreas to release more insulin. GLP-1s make your body release insulin only when it is needed and slow down how fast sugar gets into your blood. SGLT2 inhibitors take sugar out through your kidneys so there is less for insulin to deal with. All of these are working with the insulin your body still makes. They are supporting it, boosting it, or taking pressure off it. The key thing is that they only work if your pancreas is still producing some insulin. If it is not, they cannot do the job alone.

Replacing insulin is the other side of the coin. That is what injected insulin does. It steps in and does the job your pancreas can no longer do. In type 1 diabetes, this is the only option because the pancreas has stopped making insulin completely. In type 2 diabetes, replacing insulin becomes necessary when the pancreas has worn down over time and cannot keep up anymore, even with the help of tablets. There is no shame in that. It is just biology.

Why does this framework matter so much? Because it stops medication from feeling like a random list of names. It gives you a way to organise what you know. If your doctor adds a new tablet, you can ask whether it is helping your insulin work better or doing something else. If you are told you need to start insulin, you can understand that your body needs replacement now, not just support. You are not just following orders. You are understanding the plan.

It also helps you think about side effects and risks. Medications that help insulin work better, like metformin or GLP-1s, are less likely to cause hypos on their own because they work with your body's natural signals. Medications that push insulin out, like sulfonylureas, can cause hypos because they are forcing insulin release even when your blood sugar is fine. Insulin itself, when injected, can cause hypos if the dose does not match your food and activity. Knowing which category your medication falls into tells you something about what to watch for.

This idea also helps when you are exercising. If you are on medication that helps insulin work better, your risk of a hypo during exercise is generally lower than if you are on insulin or sulfonylureas. That does not mean you can ignore your blood sugar, but it does mean the precautions you need to take are different. We will get into the details of exercise and medication in the next chapter, but the framework starts here. Know what your medication is doing, and you will know what to think about when you move.

Another way to think about it is to picture your body as a delivery system. Insulin is the delivery driver that takes sugar out of your blood and into your cells. In type 2 diabetes, the drivers are still there but they are not getting the message, or there are not enough of them. Tablets like metformin are like giving the drivers better directions. Sulfonylureas are like hiring more drivers. GLP-1s are like telling the warehouse to only send out deliveries when there is actually something to deliver. SGLT2 inhibitors are like sending some of the packages out through a different door entirely. Insulin injections are like hiring an outside delivery company because your own drivers have stopped showing up.

That is the one big idea. Helping or replacing. Support or substitute. Everything else is detail. If you can hold onto that, you will never be confused about what your medication is for or why your doctor chose it. You will also be in a much better position to ask good questions and make informed decisions about your own care.

Side Effects and What to Watch For

Every medication has side effects. That is true for diabetes medication just like it is true for anything else. But side effects are not a reason to panic, and they are not a reason to stop taking something without talking to your doctor first. What matters is knowing what to expect, knowing what is normal, and knowing when something is worth mentioning. That is what this section is about. Not to scare you, but to prepare you.

Metformin is famous for stomach issues. Nausea, loose stools, a bit of cramping, especially in the first few weeks. That is because it changes how your gut handles sugar and how your liver releases it. Most people find that taking it with food helps a lot. Starting on a lower dose and building up slowly also helps. If you have been on it for months and still have serious stomach problems, that is worth mentioning to your GP. There is a slow-release version that some people tolerate much better. Metformin can also affect vitamin B12 levels over time, so your doctor may check that every now and then.

Sulfonylureas like gliclazide can cause hypos. That is their main risk, and it is a real one. If you are on one of these, you need to know the signs of a hypo and you need to be prepared to treat it. Some people also get stomach upset or skin reactions, but the hypo risk is the big one. If you are active, if you sometimes skip meals, or if your routine changes a lot, this is worth a conversation with your healthcare team. It does not mean the medication is wrong. It means you need to understand how it works and plan around it.

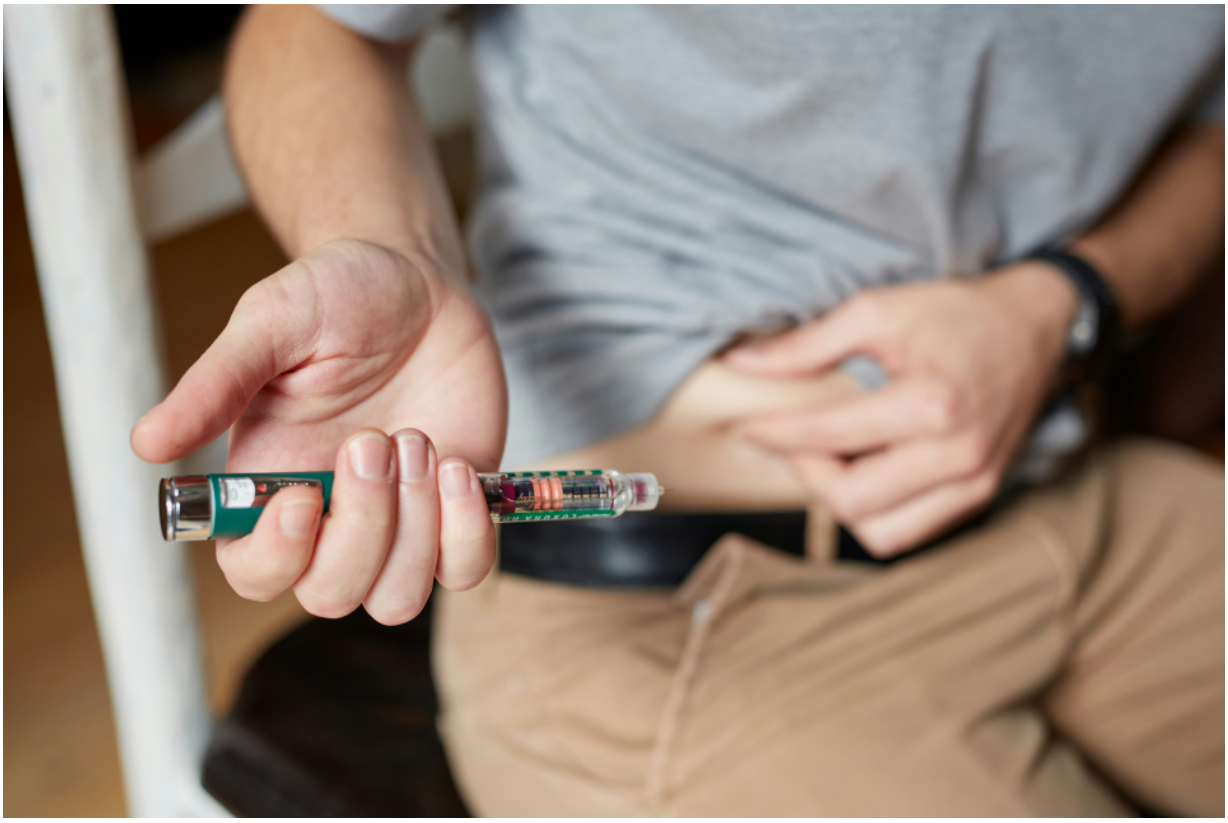
GLP-1s are known for nausea, vomiting, and sometimes diarrhoea. They slow down your digestion, which is part of how they work, but that can also make you feel pretty rough at the start. Most people find it settles down after a few weeks. Eating smaller meals and avoiding very fatty or very rich food can help. There have been some reports of more serious gut issues, like pancreatitis, but these are rare. If you have severe stomach pain that will not go away, that is a reason to call your doctor. Do not just wait it out.

SGLT2 inhibitors can cause more trips to the bathroom because you are peeing out extra sugar. That can lead to dehydration if you are not drinking enough water. They also increase the risk of certain infections, particularly urinary tract infections and thrush, because the extra sugar in your urine feeds bacteria and yeast. Keeping clean and drinking plenty of water helps. In rare cases, they can cause a serious condition called diabetic ketoacidosis, even when blood sugar is not extremely high. If you feel very unwell, sick, or confused while on one of these, get medical help.

Insulin has its own set of things to watch for. The main one is hypos. If you take too much insulin, or you do not eat enough, or you exercise more than usual, your blood sugar can drop too low. That is why timing and dosing matter so much. Insulin can also cause weight gain for some people, because it helps your cells take in sugar and store it. That is not a reason to avoid insulin if you need it, but it is something to be aware of and something you can manage with diet and activity. Injection sites can also get sore or lumpy if you use the same spot over and over. Rotating where you inject helps a lot.

So how do you know when a side effect is worth mentioning? A good rule is this. If it is mild and it is getting better, give it time. If it is mild but it is not getting better, mention it at your next appointment. If it is severe, if it is getting worse, or if it is stopping you from living your normal life, call your doctor sooner rather than later. You do not need to suffer in silence, and you do not need to guess. Your healthcare team has seen it all before, and they can usually adjust something to make it better.

One more thing. Never stop taking a medication without talking to your doctor first. Some medications need to be tapered down rather than stopped suddenly. Others are controlling something that could get worse quickly if you stop. If you are having side effects, the answer is almost always to adjust the dose, change the timing, or switch to something else, not to go it alone. You are not being a nuisance by asking questions. You are being a good manager of your own health.



05

Chapter 3: Moving with Diabetes

Why Exercise Is One of the Best Medicines You Have

I want to start this chapter with something i genuinely believe after 30 years of watching people move. Exercise is not just good for you when you have diabetes. It is one of the most powerful tools you have for managing it day to day and year to year. And i mean that in a very practical sense, not as some motivational slogan.

Here is the basic idea first, without getting into too much medical language. When you move your muscles, they start pulling sugar out of your blood to use as fuel. They do this whether insulin is working well or not. That alone is a big deal for anyone with type 2 diabetes whose insulin is struggling to do its job. For someone with type 1, it means movement can lower blood sugar even when the insulin you injected is still doing its thing.

The second thing movement does is make your body more sensitive to insulin. That means the insulin you do have, whether your own or injected, works better. You need less of it to move the same amount of sugar out of your blood. People often notice this for hours after a walk or a weights session. Your body stays a bit more insulin sensitive for a while. Some people find it lasts into the next day, which is why a lot of the guidance around exercise and diabetes talks about the effect being cumulative over the week, not just in the moment.

Then there is the long game. Regular movement helps your heart, your blood vessels, your cholesterol, your blood pressure, your mood, your sleep, and your weight. All of those things matter when you have diabetes because diabetes does not exist in isolation. It sits alongside your heart and your circulation and your stress levels. Move regularly and you are quietly improving all of those at the same time, often without realising it.

There is also something i have seen again and again in my gym. People with diabetes who exercise regularly tend to feel more in control. Not just of their blood sugar, but of their whole condition. They understand their body better because they are paying attention to it. They notice how different activities affect their levels. They spot patterns. That awareness is worth a huge amount, and you only get it by doing, not by reading.

I should mention why this chapter is the big one in this book. You have already read what diabetes is and how insulin and medication fit together. You have the foundation. Now we take all of that and turn it into action. Everything in this chapter is about what to actually do, how to prepare, what to think about with your medication, and how to move safely with your condition, not against it.

One more thing before we go further. I am not going to pretend exercise is easy for everyone. Some days it is the last thing you want to do. Some days your blood sugar is not where you want it to be. Some days your energy is gone. We will get into all of that in the next chapter. For now, i just want you to understand why it is worth the effort. Because it genuinely is.

The Guidelines: WHO, ACSM, and NICE in Plain English

Now i want to walk you through what the official guidance actually says. I am going to cover three organisations here. The World Health Organization, the American College of Sports Medicine, and NICE, which is the National Institute for Health and Care Excellence here in the UK. These are the bodies that set the recommendations your GP, your nurse, and people like me are working from.

Let me start with the broad picture because all three organisations agree on the general shape of it. Adults should aim for a mix of aerobic activity and strength work every week. Aerobic means anything that gets you breathing harder and your heart working, like walking briskly, cycling, swimming, dancing, or anything else that keeps you moving for a stretch of time. Strength work means using your muscles against some kind of resistance, whether that is weights, resistance bands, bodyweight exercises, or even carrying shopping up the stairs.

The World Health Organization recommends adults get somewhere between 150 and 300 minutes of moderate aerobic activity per week, or 75 to 150 minutes of vigorous activity, or a mix of both. On top of that, they recommend muscle strengthening activities on at least two days per week. That is the baseline for general health. For people with diabetes, the same numbers apply but the reasons are even stronger because of how much they help with blood sugar control.

The ACSM goes a step further for people with diabetes specifically. They recommend the same aerobic volume, around 150 minutes a week or more, spread out across at least three days with no more than two days in a row without activity. That last bit matters because insulin sensitivity drops if you go too long without moving. They also back the two or more days of strength training, and they add flexibility and balance work as useful extras, especially as you get older or if you have nerve damage.



NICE, here in the UK, aligns with all of that. Their guidance for type 2 diabetes in particular is clear that structured exercise should be part of the conversation alongside diet and medication. They recommend supervised exercise programmes in some cases, especially where there are other health conditions or where someone is starting from a very low base. That is exactly the kind of thing i do at Club-K through GP Exercise Referral, and it is one of the reasons i went and learned as much as i could about diabetes in the first place.

The word that comes up in all three sets of guidelines is consistent. It is not about smashing yourself once a week. It is about spreading the activity out. A walk on Monday, some strength work on Tuesday, a longer walk or a swim on Thursday, more strength on Saturday. That kind of pattern ticks all the boxes. It keeps your insulin sensitivity topped up and it keeps your muscles working.



I want to be honest about one thing. These numbers can look a bit intimidating if you are just starting out. 150 minutes sounds like a lot. But it is 30 minutes on five days, or 22 minutes on seven days, or three 50 minute sessions if you prefer longer blocks. And you can build up to it. Nobody is expecting you to go from nothing to 150 minutes in a week. The guidelines are the destination, not the starting line.

There is also a really important point that all three organisations make in their own way. Some movement is always better than none. Even if you cannot hit the full recommendations yet, doing something is worthwhile and counts towards your health. Walking to the end of the road and back is not nothing. Standing up and marching on the spot during the adverts is not nothing. Every bit of movement sends a signal to your body that says keep using sugar, keep using insulin, keep things working.

Medication and Exercise: What to Think About



This is the part that matters most for staying safe, and it is the part that often gets skipped. Different diabetes medications behave very differently when you exercise, and knowing which group you are in makes a huge difference to how you plan your movement.

Let me start with the biggest one. If you take insulin, whether that is rapid acting around meals or a longer acting background insulin, exercise changes how that insulin affects you. When you are active, your muscles are pulling sugar out of your blood and your injected insulin is still in your system doing its job. Those two effects stack up. That means a normal dose of insulin plus a good chunk of exercise can send your blood sugar lower than you would expect, and it can happen during the session or hours afterwards. I have known people to have a hypo at three in the morning after an evening walk, and they had no idea that was a thing until it happened to them.

Because of that, the guidance around insulin and exercise is to plan rather than react. That might mean reducing the insulin dose before exercise, or eating something beforehand, or timing your exercise around when your insulin is at its peak. There is no single rule that works for everyone because it depends on the type of insulin, the timing of your last dose, how long and hard you are exercising, and how your own body responds. The point is to have a plan that you have agreed with your diabetes team, not to guess every time.

The next group is the sulfonylureas. These are tablets that push your pancreas to release more insulin. Because they do that, they carry a similar risk to insulin itself. They can cause blood sugar to drop too low, and that risk goes up when you exercise. If you are on one of these and you are starting a new exercise routine, it is worth having a conversation with your GP or nurse about whether the dose needs adjusting. You should not change it yourself, but you should ask the question.



Metformin is a different story. It works by helping your body respond to insulin and reducing how much sugar your liver releases. It does not usually cause hypos on its own, and it generally does not need adjusting for exercise. So if you are on metformin alone, you can usually get on with your movement without worrying too much about the medication side of things. That does not mean ignore how you feel, but it does mean you have a bit more freedom.

Then there are the newer ones, the GLP-1s and the SGLT2 inhibitors. GLP-1s tend to slow digestion and reduce appetite, which can affect how you feel during exercise, especially if you have not eaten enough. They also lower the risk of hypos compared to insulin and sulfonylureas, so that is good news. SGLT2 inhibitors work by pushing sugar out through your urine. They are generally low risk for hypos, but there is a small risk of a rare condition called ketoacidosis that can be triggered by intense exercise, illness, or dehydration. If you are on one of these, it is worth knowing the warning signs and mentioning it to your team.

The bottom line here is simple. Know what you are taking, know what it does, and know how it behaves when you move. If you are on insulin or a sulfonylurea, you have more to think about and you should have a plan. If you are on metformin or one of the newer drugs, things are usually simpler. Either way, your exercise routine and your medication routine should be talking to each other, and the person in the middle of that conversation should be you, working with your healthcare team.

Nerve Damage and How It Affects Exercise

I want to talk about something that does not get enough attention. Long term high blood sugar can damage your nerves. That is one of the reasons tight blood sugar control matters so much over the years. And when nerves are damaged, exercise changes. Not in a dramatic stop everything kind of way for most people, but in a way that means you need to be aware and adapt.

There are two main types of nerve damage we talk about with diabetes. The first is peripheral neuropathy. This affects the nerves in your feet, your legs, and sometimes your hands. It usually starts in the feet. The signs are things like numbness, tingling, burning, or a loss of feeling. Some people describe it like walking on cotton wool. Others get sharp pains or a feeling of pins and needles that comes and goes. For some people it is mild. For others it is a real daily annoyance.

The problem with peripheral neuropathy and exercise is that you lose some of your ability to feel what is happening to your feet. You might not notice a blister forming, or a stone in your shoe, or a small cut. That matters because if you do not feel it, you do not treat it, and a small problem can become a bigger one. That is why footwear matters so much. Good shoes with enough room in the toes, no rough seams inside, and socks that do not rub. Check your feet before and after exercise, especially the soles and between the toes. If you cannot see them properly, use a mirror or ask someone to help. This is not being fussy, it is basic safety.

The second type is autonomic neuropathy. This affects the nerves that control things you do not think about, like your heart rate, your blood pressure, your digestion, and your sweat glands. When this is damaged, your body does not respond to exercise the way it should. Your heart rate might not rise the way you expect. Your blood pressure might drop when you stand up, making you dizzy. You might sweat less, which means you overheat more easily. You might feel sick or full during exercise because your stomach is emptying more slowly.

If you have autonomic neuropathy, the usual ways of judging exercise effort, like checking your heart rate or going by how sweaty you are, do not always work. You might need to use a different scale, like how hard you feel you are working on a scale of one to ten, or how easily you can talk while you move. Your healthcare team can help you figure out the best way to monitor yourself. The point is not to avoid exercise, it is to adjust how you do it.

Balance is another thing that changes with nerve damage. If you cannot feel your feet properly, your balance gets worse, and your risk of falling goes up. That does not mean stop moving. It means choose movements that support your balance rather than challenge it unnecessarily. Holding onto a rail while you walk on a treadmill. Using a stationary bike instead of a road bike. Doing strength work seated or with support. Doing balance exercises on purpose, like standing on one leg while holding a counter, to keep what you have.

Strength training is actually brilliant here. Strong legs and a strong core help you stay stable even if your sensation is reduced. So do not skip it. If anything, it becomes more important. Just be sensible about the surface you are on, the shoes you wear, and the support you have around you. A good instructor or a physio can help you design something safe.

One last thing on this. If you have any numbness, tingling, or loss of feeling in your feet or legs, or if you get dizzy when you stand up, tell your GP or diabetes nurse. They can check for nerve damage and give you specific advice. Nerve damage does not mean the end of exercise. It means a different approach to it. I have worked with plenty of people with neuropathy who train regularly and safely. It just takes a bit more thought.

Building Your Week: A Practical Starting Point

Right, let us put all of this into something you can actually use. I am going to give you a simple weekly template. It is not a prescription. It is a starting point you can adjust with your healthcare team and with how your body responds.

The template has four pieces. Aerobic work, strength work, balance and flexibility, and rest. The aerobic work is your walking, cycling, swimming, dancing, anything that gets you breathing harder for a stretch of time. The strength work is your muscles working against resistance. Balance and flexibility are the bits that keep you steady and stop you getting stiff. And rest is what lets your body recover so you can keep going.

Here is what a week might look like. Monday, a 30 minute brisk walk. Tuesday, 20 to 30 minutes of strength work, maybe some seated or standing exercises with bands, dumbbells, or your own bodyweight. Wednesday, another 30 minute walk, or a swim if you prefer. Thursday, rest, or a gentle walk if you feel like it. Friday, another strength session. Saturday, something longer and more enjoyable, a longer walk, a cycle, a dance class, whatever you actually look forward to. Sunday, rest or something very light like stretching or a short easy walk. That gives you around 150 minutes of aerobic work, two strength sessions, and two rest or recovery days. It hits the guidelines without being complicated.

If you are just starting out, do not jump straight into that. Start with 10 minutes of walking three times a week. Do that for a couple of weeks. Then add five minutes to each walk. Then add one strength session. Build up slowly. Your body will thank you for it and you will be far more likely to stick with it than if you go all in and burn out.

If you are on insulin or a sulfonylurea, you need to think about where your sessions sit relative to your medication and your meals. Some people find it easier to exercise after a meal when their blood sugar is on the way up. Others prefer first thing in the morning before their insulin has kicked in. There is no universal answer. What matters is that you test, you note what happens, and you build a pattern that works for you. Your diabetes team can help you fine tune this.

If you have nerve damage, the template stays the same but the details change. Maybe your walks are on a treadmill with a handrail rather than outdoors on uneven ground. Maybe your strength work is mostly seated. Maybe you add specific balance exercises a couple of times a week. The shape is the same, the content adapts.

I want to say something about enjoyment here, because it matters more than people think. The best exercise plan in the world is useless if you hate it and stop after three weeks. So pick things you actually like. If you hate running, do not run. Walk, swim, cycle, dance, lift, do yoga, do whatever gets you moving and does not feel like punishment. The guidelines do not care what the movement is. They care that you do it.

Finally, a word on tracking. You do not need to be obsessive, but a simple note of what you did and how your blood sugar responded is genuinely useful. Over a few weeks you will start to see patterns. You will learn which activities drop you fastest, how long the effect lasts, and what you need to eat or adjust beforehand. That knowledge is yours, and it makes everything easier.



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Chapter 4: When Things Go Wrong

Hypos During and After Exercise

So you have started moving. You have read the earlier chapter on exercise, you have got yourself a routine going, and then something catches you off guard. Your blood sugar drops, and it drops at a time you did not expect. This is one of the most common things people tell me about, and it is one of the most frightening. But once you understand why it happens, it stops being a mystery and starts being something you can plan for.

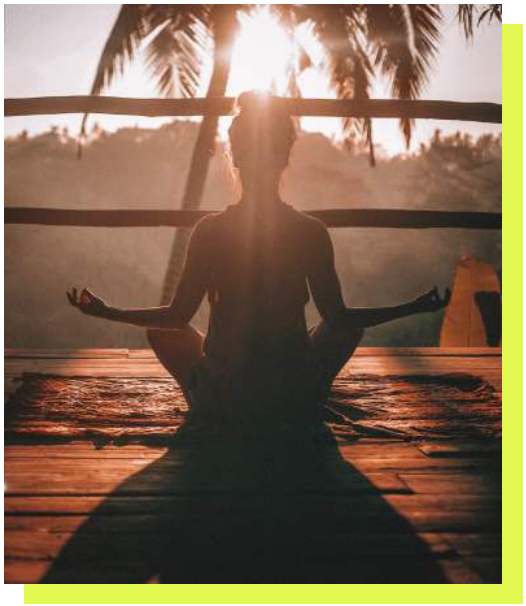
Here is the part that surprises most people. The low does not always come during the exercise. It can come one hour after. It can come four hours after. It can even wake you up at two or three in the morning, long after you have gone to bed feeling fine. That is because exercise does not just use the sugar in your blood while you are moving. It also refills your muscles with something called glycogen, and your muscles pull sugar out of your bloodstream for hours afterwards to do that refilling job. So the effect of a single walk or a single gym session can roll on well into the evening and the night.

There is another layer to this as well. When you exercise, your body becomes more sensitive to insulin. That sounds like a good thing, and mostly it is, but it means that whatever insulin is in your system does its job more powerfully for a while after you finish. If you have taken your usual dose of insulin and then done more activity than your body is used to, the combination can tip you low. This is why the timing of your insulin matters so much, and it is covered in more depth in the chapter on moving with diabetes. For now, just hold onto this: exercise makes insulin work harder, and that effect outlasts the exercise itself.

So how do you recognise a hypo coming on? Everyone is a bit different, but the common early signs include a shaky feeling, sweating when you are not hot, a sudden hunger, tingling around your lips or fingers, a racing heart, and a change in mood that other people might notice before you do. Some people get irritable. Some get teary. Some just feel foggy and slow. The key is to learn your own early warning signs, because the earlier you catch it, the easier it is to turn around.

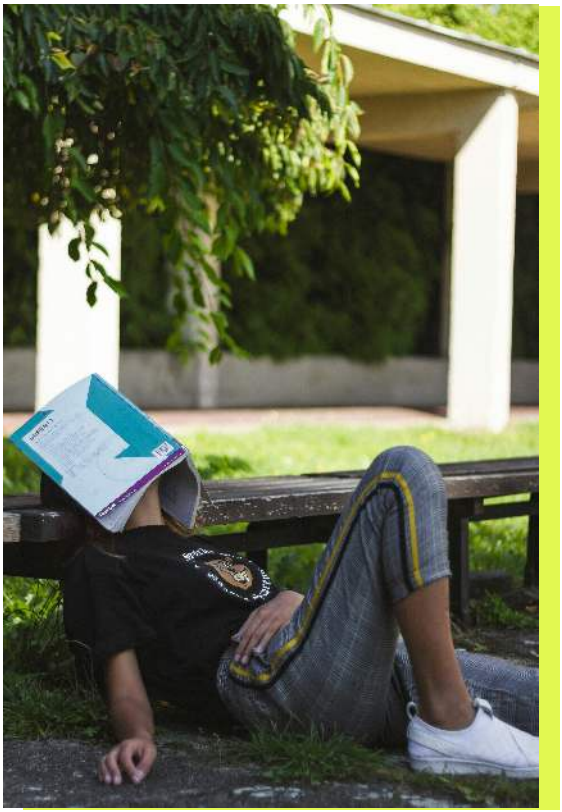
If you are exercising and you feel any of those signs, stop. Do not push through it. Test your blood sugar if you can. If you are low, treat it straight away. The standard treatment is fast acting sugar, something like glucose tablets, a small glass of fruit juice, regular sugary soda (not the diet kind), or a few jelly babies. Around fifteen grams of fast acting carbohydrate is the usual starting point. Wait fifteen minutes and test again. If you are still low, treat again. Only once your blood sugar is back in range should you think about continuing, and even then, take it easy for the rest of the session.

Prevention is where the real work happens. If you know you are going out for a longer or harder session than usual, check your blood sugar before you start. Keep a fast acting sugar source in your pocket, your gym bag, or your car. Never exercise without it. If you use insulin, talk to your diabetes team about whether your dose needs adjusting on exercise days, because this is a very individual thing and what works for one person may not work for you. Some people need a small snack before exercise. Some need to reduce their insulin. Some need both. There is no one size fits all answer here, and that is not a failing on your part, it is just how diabetes works.



The after exercise window needs attention too. If you have done a long or hard session, check your blood sugar again a couple of hours later. Check it before bed. If you are on insulin and you have had a big day of activity, your team may suggest a slightly lower dose at night or a small snack before sleep. This is not being over cautious. This is just smart planning. The overnight low is the one that catches people out the most because you are asleep and you do not feel it coming.

Waking up with a headache, soaked sheets, or feeling drained is a sign that you may have dropped low in the night.



The last thing I want to say on this is about confidence. The first few times your blood sugar drops after exercise, it feels like your body has betrayed you. It has not. It is just responding to the activity in the way it always has. The more you track what happens, the more you learn your own patterns, and the more you can predict and prevent. Keep a simple note of what you did, what you ate, what medication you took, and what your blood sugar did. After a few weeks you will start to see your own personal map, and that map is worth more than any general advice anyone can give you.

Highs, Fatigue, and the Days You Just Cannot

Not every bad day is a low. Sometimes the problem is the opposite. Your blood sugar runs high, your energy disappears, and the idea of going for a walk or lifting a weight feels completely out of reach. These days happen. They happen to everyone with diabetes, no matter how well controlled things usually are. What matters is what you do with them.



Let me explain why high blood sugar wipes you out. When your blood sugar is high, your body is essentially dehydrated. High sugar pulls fluid out of your cells, and that leaves you feeling tired, thirsty, and foggy. Your muscles do not get the fuel they need efficiently, so everything feels heavier than it should. If you have ketones building up, which is more common in type 1 but can happen in type 2 as well, you will feel even worse. Nausea, a fruity smell on your breath, and deep tiredness are all warning signs that something more serious is going on.

On a day like that, the worst thing you can do is force yourself through a hard workout. Exercise when your blood sugar is high and ketones are present can actually push your blood sugar higher, not lower. The body is already under stress, and adding more stress makes it worse. So the right call on a high day is to rest, drink plenty of water, check your blood sugar regularly, and follow whatever plan you and your team have agreed for correcting a high. If you are unsure, call for advice. A day off is not a lost day.

Then there is plain old fatigue. Not the high blood sugar kind, not the low kind, just the ordinary tiredness that comes from a bad night's sleep, a stressful week, or life in general. When you live with a long term condition, your baseline energy can be lower than it used to be. That is normal. It does not mean you are lazy or that you have failed. It just means your body is working harder behind the scenes than someone without diabetes, so you have less left over at the end of the day.

On those days, scale back. Do not cancel the whole week's exercise just because one day feels hard. Do something smaller instead. A ten minute walk around the block. A few gentle stretches. A short session on a stationary bike at an easy pace. Movement of any kind is better than no movement, and a small win keeps the habit alive. The all or nothing thinking is what kills routines, not the occasional quiet day.



There is also a mental side to this that I want to name. When you are tired and your blood sugar is not behaving, it is very easy to slide into a story about yourself. You start thinking you are not trying hard enough. You start comparing yourself to someone else with diabetes who seems to manage it effortlessly. That comparison is almost always unfair, because you are seeing their highlight reel and you are living your own behind the scenes. Every person with diabetes has days where it wins. The people who do well long term are not the ones who never have bad days. They are the ones who do not let a bad day turn into a bad week.

One practical thing that helps is planning for the bad days before they arrive. Have a backup plan for exercise that requires almost no energy. Have easy meals in the freezer. Have your testing kit somewhere you can reach it even when you are wiped out. When you are in the middle of a rough day, decision making is hard, so make the decisions in advance when you are feeling good. That way you do not have to think, you just follow the plan you already made.



And if the high days are becoming frequent, or the fatigue is not lifting, that is worth a conversation with your GP or diabetes nurse. Sometimes it is a sign that your medication needs adjusting. Sometimes it is a sign of something else going on. You are not wasting anyone's time by asking. You are doing exactly what you should be doing, paying attention to your own body and getting the right support when you need it.

Injury, Illness, and Time Off

Sooner or later, something else gets in the way. You pick up a cold that knocks you flat for a week. You tweak your back lifting something awkwardly. You get an infection that needs antibiotics. Or you have a minor injury that means you cannot train the way you normally do. When you live with diabetes, these ordinary interruptions come with an extra layer of complication, because illness and injury do not just affect your body, they affect your blood sugar too.

Here is what happens when you get sick. Your body releases stress hormones to fight off whatever is attacking it. Those stress hormones tell your liver to release more sugar into your bloodstream, because your body thinks it needs extra fuel for the fight. But your insulin is not keeping up with that extra sugar, either because your body is not producing enough or because the illness is making your insulin less effective. The result is that your blood sugar goes up, even if you have not eaten anything. This is why illness can send your readings through the roof when you are barely eating a thing.

The same thing happens with injury. Anything that puts your body under physical stress can raise your blood sugar. Surgery, a broken bone, a bad sprain, a burn, all of these can push your levels up. This is one of the reasons hospitals keep a close eye on blood sugar in people with diabetes after an operation or an accident. It is not because they think you have done something wrong. It is just physiology. Your body is responding to stress the only way it knows how.

So what do you actually do when you are ill? The usual advice is to keep testing more often than you normally would. Every few hours while you are unwell, because things can change quickly. Keep drinking water, because dehydration makes everything worse. If you can eat, eat. If you cannot eat normally, try small amounts of easily digested food or sugary drinks to keep some energy coming in, but check with your team about how to handle this if you are on insulin or certain medications. Some diabetes medications need to be paused temporarily during illness, especially if you are dehydrated or not eating. This is not something to guess at. Have a plan in place before you get sick.

For those on insulin, illness often means you need more insulin, not less, even if you are eating less. That feels wrong at first. How can you need more insulin when you are barely eating? But it makes sense once you understand that the high blood sugar is coming from your liver, not from your food. Your team can give you a sick day plan, a set of rules for what to do with your doses when you are unwell. If you do not have one, ask for one. It is one of the most useful things you can have in your diabetes toolbox.

When it comes to injury, the main thing is to let yourself heal. Do not rush back to training because you are worried about losing progress. You will lose far more progress if you make the injury worse and end up out for months instead of weeks. If you can do some kind of gentle movement that does not stress the injured area, do it. A walk if your back is bad. Upper body work if your leg is hurt. Swimming if your joints are sore. Keep the habit alive in whatever form you can, and let the injury heal properly.

Returning to exercise after illness or injury should be gradual. Start at about half of what you were doing before. See how your body responds. Check your blood sugar before, during, and after the first few sessions, because your normal patterns may have shifted after time off. If your readings are unpredictable, that is normal. Give yourself a week or two to find your rhythm again. Do not expect to be back where you were on day one.

And if you are ever unsure about whether it is safe to exercise, ask. Ask your GP. Ask your diabetes nurse. Ask a fitness professional who understands your condition. There is no prize for pushing through when your body is telling you to wait. The prize is being able to keep moving for years to come, and that means respecting the times when your body needs rest.

Mental Setbacks and Motivation

I need to talk about the part that does not show up on a blood test. The mental side of living with diabetes is real, and it is heavy, and it does not get nearly enough attention. You can do everything right for weeks, and then something small happens, a reading you did not expect, a comment from someone who does not understand, a week where life just gets in the way, and suddenly you cannot face any of it. That is not weakness. That is being human with a condition that never takes a day off.

There is a particular kind of tiredness that comes from managing a long term condition. It is not the tiredness of a hard workout. It is the tiredness of constantly thinking about food, timing, medication, exercise, and what your body is doing. It is the tiredness of always being aware. People without diabetes do not have to think about any of this, and sometimes that gap feels very wide. You are allowed to find that exhausting. You are allowed to say it out loud.

Motivation comes and goes for everyone. That is true for exercise, for healthy eating, for anything worth doing. The mistake people make is thinking that motivation should be constant, and that if it dips, something has gone wrong. It has not. Motivation is a wave, not a straight line. The trick is not to rely on motivation. The trick is to build a routine that carries you when motivation is low, so that on the days you do not feel like it, you still do something small, and that keeps the thread going.

One thing that helps is making the barrier to action as low as possible. If your gym kit is ready by the door, you are more likely to use it. If your walking shoes are by the front door, you are more likely to put them on. If your first ten minutes of exercise is something you actually enjoy, you are more likely to start. The harder you make it to begin, the less likely you are to begin. So make it easy. Ridiculously easy. That is not cheating. That is good strategy.

Another thing that helps is having someone to do it with. A friend, a partner, a walking group, a class at your local gym. When someone is expecting you, you are far more likely to show up, even on the days when you would rather not. This is not about relying on other people to motivate you. It is about using the natural human pull of company and commitment to help you keep going. There is nothing wrong with that.

There will be weeks where you fall off completely. You stop testing. You stop exercising. You eat whatever is easiest. It happens. The important thing is what you do next. The worst response is to decide you have blown it and give up entirely. The best response is to do one small thing to get back on track. Test your blood sugar once. Go for a five minute walk. Drink a glass of water. Then do it again tomorrow. Do not try to fix everything in one day. Just start again, gently, and let the momentum build.

If the mental weight is becoming too much, please talk to someone. Your GP can refer you to support. There are diabetes communities online and in person where people understand exactly what you are going through. There is no shame in saying that living with a long term condition is hard on your head as well as your body. It is. And you do not have to carry it alone.

The people I have seen do best over the years are not the ones who never have a bad week. They are the ones who have accepted that bad weeks are part of the deal, and who have built a simple enough routine that they can always find their way back to it. They do not aim for perfect. They aim for consistent enough. That is the goal. Consistent enough, over a long time, beats perfect for a short time every single time.

When to Call for Help

This is the subchapter I hope you never need. But I would rather you read it and never use it than need it and not have it. There are times when managing things at home is not enough, and knowing the difference between a bump in the road and something more serious is a skill worth having. It is not being dramatic to call for help. It is being sensible.

Let me start with the low end. If you are having a hypo and you can treat it yourself, do that first. Fast acting sugar, wait fifteen minutes, test again. If you are still low after two or three rounds of treatment, or if you cannot keep the sugar down because you are vomiting, that is when you need help. If you are with someone, tell them what is happening and ask them to call for advice. If you are alone and you feel yourself losing consciousness, call emergency services. Do not wait to see if it passes. A severe hypo can become an emergency very quickly, and the sooner you get help, the safer you are.

For the highs, the warning signs are different. If your blood sugar is very high and you have ketones in your blood or urine, especially if you feel sick, are vomiting, have stomach pain, or your breathing is deep and laboured, that is a medical emergency. In type 1 diabetes this can be a sign of diabetic ketoacidosis, which needs hospital treatment. In type 2 diabetes, a similar but different condition called hyperosmolar hyperglycaemic state can develop, and it also needs urgent care. Both of these are serious. Do not try to manage them at home. Call for help.

Then there is the middle ground, the things that are not emergencies but still need attention. If your blood sugar is regularly running higher or lower than your target range, and you cannot work out why, that is worth a call to your diabetes team. If you are having frequent hypos, especially at night, that needs reviewing. If your medication is causing side effects that are bothering you, say something. If you have a wound on your foot that is not healing, or any new numbness or tingling in your feet or hands, get it checked. These are the small signals that can turn into big problems if they are ignored.

I also want to mention the emotional side of asking for help. A lot of people put it off because they do not want to waste anyone's time or they feel like they should be able to handle it themselves. I understand that feeling. But your GP and your diabetes nurse are there for exactly this. They would much rather hear from you early than see you in a crisis later. There is no medal for struggling alone. The people who do well with diabetes are the ones who use the support around them.

It also helps to have your information ready when you call. Know your medication names and doses. Know your most recent blood test results if you have them. Know what your blood sugar has been doing over the last few days. The more clearly you can describe what is happening, the faster the person on the other end can help you. A small notebook or a notes app on your phone can be enough. Jot things down as they happen, and you will have a clear picture to share when you need it.

If you ever find yourself unsure whether something is serious enough to call about, call anyway. The worst that happens is you get reassurance. The best that happens is you catch something early. Nobody in healthcare will think less of you for checking. They will think you are doing exactly what you should be doing, which is paying attention to your own body and getting the right help at the right time.

Living with diabetes means living with uncertainty sometimes. You will not always know why a reading is what it is. You will not always feel in control. But knowing when to reach out, and who to reach out to, gives you a kind of safety net that makes everything else easier to handle. You are not meant to do this alone. None of us are.



07

Chapter 5: Living Well with Diabetes for the Long Haul

From Patient to Person in Charge

I want to tell you about a guy we shall call Ray. He came to a leisure centre I worked at about eleven years ago, maybe twelve, after a heart bypass and a type 2 diagnosis that landed on the same discharge letter. For the first six months he did everything I asked. He turned up, he walked the treadmill, he filled in his food diary, he took his tablets on the dot. But he always introduced himself the same way. "Hello, I'm Ray, I'm a diabetic." That was the first thing out of his mouth, every single time, to anyone new. His condition walked into the room before he did.



Then something shifted. Not overnight, and not because of anything clever I said. He turned up one Tuesday and said he'd been out for a meal at the weekend and had ordered what he actually wanted, not what he thought he was allowed. He'd checked his levels before and after, made his own call, and it had been fine. Nobody had told him to do that. He'd worked it out. And from that point on, when he introduced himself, he stopped with the label. He was just Ray who happened to have type 2.

That's what this chapter is about. Not the mechanics of diabetes, because you've got those now from the earlier chapters. Not the exercise guidelines, the medication, or the troubleshooting. This is about the shift inside you, the one where you stop being a person that diabetes happens to and start being a person who knows their own body and makes their own calls. Ray took twelve years to get there. You don't have to.



Here's the honest bit. Nobody hands you that shift. Your GP can't prescribe it, your nurse can't inject it, and I can't teach it to you in a six-week block. It comes from understanding your own condition well enough that the decisions stop being scary and start being ordinary. That's why this book exists in the order it does. The understanding comes first, then the confidence follows. If you've read the earlier chapters properly, you already know more about your body than most people walking past you in the street.

The identity part matters more than people give it credit for. If you see yourself as fragile, you'll move like someone fragile. You'll skip the walk because you're worried, you'll avoid the weights because you don't want to risk it, you'll sit out the things you used to enjoy because you're not sure how your levels will behave. That's not caution, that's your self-image doing the deciding for you.



Flip that around. If you see yourself as someone who understands their body, monitors when it matters, has a plan for the tough days, and gets on with life, then that's what you'll do. Same condition, same medication, same body. Completely different week. Same person, arguably, but showing up in a very different way.

There's a trap on the other side too, and I've seen it plenty. Some people swing so hard the other way that they refuse to acknowledge diabetes at all. They ignore the readings, skip the appointments, pretend it isn't there. That's not being in charge, that's just been in denial with extra steps. Being in charge means you look at the whole thing honestly, you take it seriously, and you still get on with your life. You hold both at once. That's the skill.

Practical version. Next time you describe yourself to someone new, notice what you lead with. If it's the condition, ask yourself whether that's actually the most interesting or most accurate thing about you. Because it probably isn't. And the way you introduce yourself out loud has a funny way of becoming the way you think about yourself in your own head.

Habits That Stick

Big resolutions are rubbish. I've watched hundreds of people join in January with a five-day-a-week plan and a fridge full of kale, and I've watched most of them vanish by mid-February. Not because they were lazy. Because the plan was built for a version of them that doesn't exist. It was built for the person they imagined they'd become overnight, not the person who actually has to live through Tuesday evening when work ran late and the kids are arguing and there's nothing defrosted.



Small habits are the opposite. They're boring, they're underwhelming, and they're the only thing I've ever seen actually work across a decade. Walking for ten minutes after your evening meal. Parking further from the shop door. Taking the stairs when there's only one flight. Drinking a glass of water before you sit down for tea. None of that sounds impressive. All of it compounds.

The way I usually explain it to people at the gym is this. Think about brushing your teeth. You don't set a goal to brush your teeth. You don't track it on an app. You don't celebrate when you hit a personal best on the toothbrush. You just do it, because at some point it became part of the day, and the day feels wrong without it. That's the target with movement and food. Get it to the point where it's just what you do, not something you're doing.

There are a few things that make the difference between a habit that sticks and a habit that dies. First, it has to be small enough that you could do it on your worst day. Not your best day, your worst. If your plan only works when you're well rested and everything's going right, it's not a plan, it's a wish. Second, it has to have a trigger attached to something you already do. After breakfast, I walk. After I park the car, I take the long way in. Attach it to something existing and it doesn't need willpower to start.



Third, and this is the one most people miss, it has to be pleasant enough that you don't dread it. If your exercise routine is something you grit your teeth through every single time, it will not survive a busy week. The thing you enjoy is the thing you'll still be doing in five years. That might mean swimming instead of running. It might mean dancing in your kitchen instead of the gym. It might mean a walk with a friend rather than a solo slog. Function beats fashion every time.

Now, real life will still knock you about. Holidays happen. Christmas happens. A stressful month at work happens. You'll miss days, sometimes weeks. That's not failure, that's just what a long life looks like. The trick isn't avoiding the gaps, it's how fast you come back afterwards. People who stick with this stuff long term aren't the ones who never miss a day. They're the ones who miss a fortnight and then start again without a big drama about it.

One more thing worth saying. Habits need to be able to flex when your condition flexes. If your levels are running high and your energy is flat, the habit for that day might be a shorter walk, or a slow stretch on the living room floor, or just a decent night's sleep. That still counts. The habit is showing up for yourself on some level, not smashing a target. Keep the bar low on the rough days and the whole thing survives.

I'd rather see someone walk twice a week for twenty years than smash a five-day plan for six weeks and quit. Slow and steady really is the whole thing. It's not a motivational line, it's just what the long game looks like when you actually watch people live it.

Talking to Your Healthcare Team as a Partner

A lot of people sit in the GP's office like they're back at school in front of the head teacher. Shoulders in, hands in their lap, waiting to be told off about their HbA1c. I understand why. Appointments are short, doctors are busy, and if you don't entirely understand what's being said, it's easy to just nod and take the leaflet and leave. But that whole dynamic works against you. You're not a naughty kid, you're an adult managing a long-term condition, and you're half of the team.

The single biggest change you can make is showing up with questions written down. I know it sounds small. It changes everything. Because the moment you pull out a piece of paper and say "I've got three things I wanted to ask", the conversation shifts. You're not there to receive information, you're there to get your questions answered. Those are completely different appointments, even with the same doctor, in the same twelve-minute slot.

What sort of questions? Things like: what's my HbA1c come down to, and what are we aiming for? Is this medication still the right one for me, or would something else suit my week better? Should I be checking my levels more often, less often, or at particular times? How do my results compare to last time? And if you've started exercising, this is the perfect place to say so and ask whether anything about your medication needs adjusting. From my own experience, that last question alone has changed people's plans for the better more times than I can count.

The nurse at your practice is often the better person to talk to about day-to-day stuff. Not because they know more than the GP, they'd be the first to say they don't, but because they usually have a bit more time and they're the ones who see the trends with you month to month. A lot of the practical questions about diet, exercise, monitoring and how to handle the odd high or low are exactly the kind of thing they deal with all day. Use them.

When you get your results back, ask for the actual numbers, not just a thumbs up or a concerned face. Write them down. Keep a little notebook, or a note on your phone, or the back page of your diary. The HbA1c from six months ago, the blood pressure, the weight, whatever they're tracking. Over a year or two that becomes an incredibly useful picture. You'll see what's making a difference and what isn't. You'll catch a drift before it becomes a problem. And crucially, you'll walk into the next appointment already knowing your own trend line, so the conversation is about what to do next rather than what happened.



Same applies to fitness professionals, and I say that with an interest. If you're working with a trainer or a class instructor or a physio, tell them about your diabetes. Tell them what medication you're on, whether you get hypos, what your warning signs are, and whether you carry anything for treatment with you. You'd be amazed how often that information isn't shared, usually because the person doesn't want to make a fuss or assumes someone already knows. Speak up. They'd much rather know than not.

There's a subtle thing that happens when you start turning up prepared, asking real questions, and telling professionals what's actually going on. You stop being a set of symptoms they're managing and you become a person they're working with. The quality of the conversation goes up. The suggestions get more tailored. And you leave with a plan that actually fits your life, rather than a general one from a leaflet that was printed in 2013.

One last piece of advice on this. If you don't understand something that was said, ask again. Ask them to say it a different way. Ask what it means in practice. There's no prize for pretending to understand, and no shame in saying "I'm not sure I followed that bit." They hear it every day. Everyone in that building would rather you left knowing what was going on than nodding politely and getting it wrong for six months until the next appointment.

Movement for Life, Not for a Season

I want you to think about movement across decades, not weeks. That's a strange thing to ask when most fitness talk is about this month, this programme, this summer. But if you've got a long-term condition, the maths works differently. You're not training for a holiday, you're maintaining a body and a set of habits that need to still be working for you when you're in your eighties. That changes what counts as good.

Which means the question isn't "what's the most effective workout I could do this week?" It's "what's the workout I'll still be doing in twenty years?" Those often have very different answers. The intense version might get you faster results now, but the version you actually enjoy and can fit around your life is the one that's going to be carrying you through retirement. Effectiveness is only useful if it survives contact with real life.

As you get older, the mix shifts. The stuff that matters most becomes the stuff that keeps you independent. Leg strength so you can get up off the floor, and off a low chair, and out of the bath. Balance, so you don't go down badly if you trip, and if you do go down, you get back up. Grip strength, so you can open jars and carry shopping and hold on to a handrail. Steady aerobic work, so your heart and lungs are still doing their job on the hills. That's the long game. It's not glamorous, it's just what a well-built older body looks like.

Your diabetes will change over the years too. That's worth saying plainly. Type 2 in particular often progresses, and medication tends to creep upwards over time. None of that is failure on your part, and none of it is the end of the plan, it just means the plan gets revised. Maybe you add a bit more monitoring. Maybe the timing of exercise shifts around your medication. Maybe certain exercises that used to be fine need adapting because of nerve changes or joints or balance. All manageable. All just part of the ongoing conversation with your team.

There's a thing that happens to people who've been moving regularly for a long time, and it's the bit I love watching. Exercise stops being a task and becomes a part of the day that they'd miss if it went. Not in a preachy way, in a practical way. They feel worse without it. Their mood drops, their sleep gets patchy, their levels get harder to manage. It's not about discipline anymore at that point, it's just how their day is built. That's the finish line. Not a personal best, not a target weight, just a life that feels wrong without movement in it.

Something else worth holding onto. You don't have to do this alone. There are walking groups, diabetes-specific classes, community exercise sessions, gyms that run referral programmes, and instructors who know a bit about long-term conditions. At Club-K we run a lot of that, and the thing that always surprises new people is how much the social side carries them. Half the reason someone turns up on a wet Thursday in January isn't the exercise, it's the fact that someone's expecting them. Find your people and the movement takes care of itself.

If you take nothing else from this section, take this. The best routine is not the newest one, or the hardest one, or the one your mate swears by. It's the one still running in your life a decade from now. Everything else is just noise.

Your New Normal

I want to close by telling you about a lady we will call Margaret. She's in her early seventies now. She came to me quite a few years ago, not long after her type 2 diagnosis, and she was, by her own words, a mess of worry. She didn't know what to eat, didn't know whether she could exercise, didn't know what half her medication was doing. She turned up to her first session in a coat because she didn't want anyone to see her. She was embarrassed, mostly. Of the condition, of herself, of not understanding what had happened to her body.

Fast forward to now. She walks most mornings with a group of women she met at the gym. She does two strength sessions a week, lighter than they used to be because her knees have opinions, but she does them. She knows her HbA1c without checking the app, she asks her nurse proper questions, she can tell you what metformin does and why she's on it. And she said something to me not long ago that stuck. She said diabetes is part of her life now, in the same way that her reading glasses are part of her life. Present, managed, not the point.

That's the version of this thing I want for you. Not a life where diabetes never crosses your mind, because that's not realistic, and not a life where it's all you think about either. Something in the middle. It's in the background, humming along, where it belongs, and you're out the front getting on with what you actually care about.

The route to that version runs through everything in this book. Understand the condition properly, so it stops being scary. Understand your medication, so you know what it does and why. Move regularly, in ways that fit your body and your week. Handle the tough days without panicking. Build habits that survive real life. And work with the people around you, medical and otherwise, as a team with you at the centre of it, not on the sidelines of it.

I've been doing this job a long time and I've seen people go from genuinely frightened to genuinely relaxed about their diabetes. It doesn't take a special sort of person. It takes understanding, a bit of movement, and enough patience with yourself to let the habits take root. That's it. That's the whole formula, and you've already got all the bits of it in your hands.

So here's where you are now, coming to the end of this book. You understand your body better than you did when you started. You know what your blood sugar is doing, what your medication is doing, how movement helps, how to handle the awkward days, and how to keep it all running for the long haul. You don't need to remember every detail, but you know enough to ask good questions and make good calls. That's what being in charge actually looks like.

You're not a patient waiting to be told what to do. You're a person who happens to have diabetes, managing it, living alongside it, and getting on with your life. Welcome to your new normal. It's not the one you'd have chosen, but it's yours, and it's a lot more workable than the version you were probably handed at the start.

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Conclusion: You Understand It Now

Looking Back at Where You Started



Think back to the moment you picked up this book. Maybe you had just been diagnosed. Maybe you had been living with diabetes for years and still felt like you were guessing. Maybe you were a friend or family member trying to understand what someone you love is going through. Whatever brought you here, something has shifted. You are not the same reader who opened the first page.

That is not a small thing. Most people with diabetes never get a clear explanation of what is happening inside their own body. They get a diagnosis, a prescription, and a follow-up appointment six months later. They leave the room with more questions than answers. If any of that sounds familiar, you already know how frustrating it feels to be handed a life-changing condition and then left to figure it out alone.

You did something different. You went looking for understanding. That takes a certain kind of person, someone who is not willing to just accept being confused about their own health. That is worth recognising.



When you first sat down with this book, diabetes probably felt like a wall. Too many terms. Too many numbers. Too many rules that seemed to contradict each other. Now you know it is not a wall. It is a set of systems that can be learned. Chapter 1 gave you the foundation, what diabetes actually is, how the types differ, and what your blood sugar numbers mean. That was the ground floor. Everything else built on it.

You learned that type 1 and type 2 work differently inside the body. You learned what the NICE ranges actually mean and why they are not just random numbers your GP throws at you. You learned what a hypo and a hyper feel like and why they happen. None of that is small. Plenty of people live for years with diabetes without ever understanding those basics.

You also learned about the other types, the ones that get less attention but still matter. Gestational diabetes, prediabetes, LADA, MODY, type 3c. You might not need to know them all in detail, but you now recognise them. If you hear those names in a waiting room or a conversation, you will not feel lost. That is a quiet kind of confidence that builds over time.

The thing about understanding your own condition is that it changes how you carry it. It stops being this mysterious thing that happens to you and starts being something you can work with. That shift does not happen overnight, but it starts with knowledge. You have done that part.



The Tools You Now Carry With You

Look at what you have in your hands now. Not literally, of course, but in your mind. You understand the difference between insulin and medication and why both exist. You know that some treatments help your insulin work better and some replace it entirely. That framework alone puts you ahead of a lot of people who are taking the same tablets but have no idea why.

You also know how food affects your blood sugar. Not in a vague, guilt-driven way where you are scared of every piece of bread, but in a real, practical way. You understand that carbohydrates, fibre, and timing all play a role. You can make choices based on knowledge instead of fear. That is a huge difference.

Perhaps the biggest tool you picked up along the way is movement. Chapter 3 gave you the guidelines from the World Health Organization, the ACSM, and NICE, but more importantly, it told you what to actually do with them. You know how exercise affects insulin sensitivity. You understand that movement is not just about burning calories or losing weight, it is about helping your body use insulin more effectively. That is something you can use every single day.

You also know the practical side of exercise with diabetes. How to think about your medication when you are active. How nerve damage might change what you can safely do and how to adapt. You have a template for a weekly routine that balances aerobic work, strength, and recovery. You are not guessing anymore.

Maybe the most valuable thing you now carry is the troubleshooting knowledge from Chapter 4. You know that hypos can happen hours after exercise, not just during it. You know what to do when your blood sugar runs high and your energy is gone. You know that resting is not failure. You know when to call for help. Those are not minor details, they are the difference between feeling in control and feeling helpless.

All of these tools fit together. They are not separate pieces of information you memorised for a test. They form a picture of how your body works and how you can work with it instead of against it. That picture will continue to develop as you learn more about yourself. But the foundation is solid.

What This Means for Your Daily Life

Understanding is not just an intellectual exercise. It shows up in real moments. The moment you check your blood sugar and know what the number actually means instead of just hoping it is fine. The moment you go for a walk and know how it might affect you later, so you are prepared. The moment you sit in a doctor's office and ask a question that shows you are paying attention.

Those moments add up. They are the difference between being a passive recipient of your care and being an active participant. You do not need to know everything. You do not need to be a doctor. But you now know enough to have a real conversation with the people who are helping you. That matters more than you might realise.

Life with diabetes is not about being perfect. It is about being informed enough to make good decisions most of the time and to handle the times when things do not go to plan. You have that now. You have a framework for understanding what is happening and a set of strategies for responding to it.

That does not mean every day will be easy. There will still be days when your blood sugar does not cooperate. There will be days when you do not feel like exercising or when you eat something you know you should not have. That is life. But you will not be lost in those moments. You will know what to do next.

The reader who started Chapter 1 is not the same person reading these final pages. You have moved from confusion to clarity. From feeling overwhelmed to feeling equipped. That is a real shift, and it is yours to keep.

You are going to carry this knowledge into every appointment, every workout, every meal, and every day for the rest of your life. That sounds heavy, but it is not. It is lighter than not knowing. It is lighter than fear. It is the weight of understanding, and it is manageable.

Moving Forward With Confidence

There is a version of this moment where you close the book and go back to your life, and nothing changes. That is not going to be you. You have come too far for that. You have read this far because you wanted to understand, and now you do. The question is what you do with it.

Start small. Pick one thing you learned and put it into practice this week. Maybe it is paying more attention to how your blood sugar responds to certain foods. Maybe it is going for a short walk after dinner. Maybe it is writing down a question to ask your GP at your next appointment. Small actions build momentum. You do not need to overhaul everything at once. You just need to start.

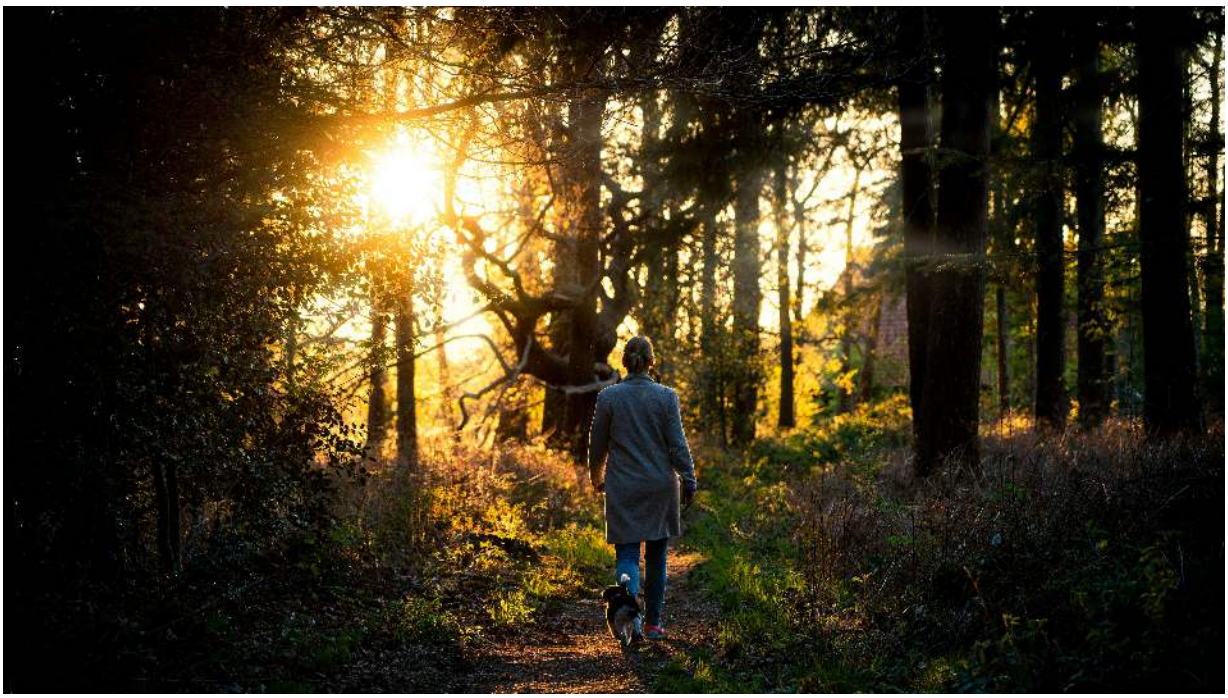
Keep learning. This book is a foundation, not the final word. Your body will change over time. Your condition may change. New research will come out. The more you stay curious and engaged, the better you will get at managing your own health. That is not a burden, it is an opportunity. You are in charge now.

Talk to people. Share what you have learned with your family or a friend who is also dealing with diabetes. Understanding grows when it is shared. You might be the person who finally explains something clearly to someone else, the way you wish someone had explained it to you.

Be patient with yourself. Living well with diabetes is a long game. There will be setbacks. There will be days when you forget everything you learned here. That is okay. You can always come back to the basics. You can always start again. The knowledge is not going anywhere.

The most important thing you can take from this book is this: you do not need to be a medical expert to take charge of your health. You just need to understand it. You do now. That is not a small thing. That is everything.

So close this book. Put it on your shelf or pass it to someone who needs it. Then go live your life. You are ready.



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About the Author

About the Author

My name is Luke and I have spent over 30 years working in the sports and leisure industry. Most of that time has been spent on the fitness studio and the gym floor, not in a lecture hall. I learned by doing, by watching, and by asking questions until things made sense. That is still how i learn today.

I run my own gym called Club-K Health & Fitness, which i opened in 2014. Before that i worked in various fitness roles across the country, but opening my own place changed things for me. It gave me a space where i could take my time with people instead of rushing them through a session. That mattered more than i expected.

A big part of what i do now is GP Exercise Referral. That means doctors send people to me who need help moving safely with a medical condition. I have specialised in diabetes, cardiac and pulmonary rehab, long term neurological conditions, and back pain management. I also run a clinic where i work as a sports therapist, so i see people with injuries and joint problems alongside everything else.



Many people come to me with different medical conditions so i have gone away and learnt about them. Diabetes is one of the ones i kept coming back to. Year after year, someone would walk in newly diagnosed, scared, and full of questions their GP did not have time to answer. I would sit with them, explain things in plain English, and watch the relief on their face. That is why i wrote this book. For the people who just want someone to talk to them like a human being and help them understand what is going on inside their own body. You do not need a medical degree. You just need it explained properly.

Heres where i'm going to blow my own trumpet a bit my gym is a multi award winning gym but so am i as an individual. I'm really proud to say I have won the following awards personally

Innervision Global - Influential man in Business - Fitness & Health Expert 2026. SE
Best of the Best Awards - Sports Health Specialist of the year 2023/24

The Diabetes...

In "The Diabetes Handbook," a seasoned expert shares practical insights on managing diabetes through exercise, nutrition, and an understanding of various diabetes types, all presented in an approachable, conversational style. With a focus on empowering readers to take charge of their health, this guide demystifies medications and emphasizes the importance of consistent movement and mental resilience. Whether you're newly diagnosed or seeking to enhance your management skills, this book offers the support and knowledge you need to thrive.