LOSE WEIGHT, STOP CRAVINGS, GET YOUR ENERGY BACK AND STILL EAT WHAT YOU LOVE

GLUCOSE Revolution

The life-changing power of balancing your blood sugar

JESSIE INCHAUSPÉ

Testimonials from the **GLUCOSE GODDESS** Instagram Community

While these testimonials are based on individual success stories, results may vary.

"A few days of applying Jessie's tips and my cravings disappeared. That changed everything."

–Laura, 63

"I'm eating pasta and losing weight. How much more awesome does it get?" —Jasmin, 20

"After two years of not ovulating, I'm regularly ovulating again. I lost 35 pounds. My acne cleared up. And mentally I am feeling so much better. The information Jessie shares changed my life. No going back!"

—Heather, 31

"Jessie has shown me that I could change how menopause went for me. My friends told me I would never be able to lose the weight I had gained. Thanks to Jessie I proved them wrong! With her glucose hacks, I lost 9 pounds, I sleep like I used to, I feel amazing, and I no longer want to nap in the middle of the afternoon. I feel even better than before menopause."

–Bernadette, 55

"I was diagnosed with type 2 diabetes after my third pregnancy 16 years ago. For years it's been getting worse and it's been difficult to manage. After starting to implement Jessie's hacks, in four months, I went from 200 mg/dL fasting glucose level to 110 mg/dL: from severely diabetic to diabetic no longer. I've been able to reverse the condition on my own!"

-Filipa, 29

–Fatemeh, 51

"Life-changing information... I lost 36 pounds in two months! My recurrent migraine problem improved significantly, and my energy is through the roof. I feel better than ever."

"In four months of following Jessie's glucose teachings, I've effortlessly lost 13 pounds, my massive hormonal acne is gone, and for the first time in my adult life I have normal thyroid levels (I went from 8.7 mIU/L TSH to 4.4 mIU/L). I have never felt better."

"I'm a 64-year-old breast cancer survivor with heart, glucose, and thyroid conditions. I take hormone suppressors and yet I have managed to lose 18 pounds in three months with the ridiculously easy changes Jessie explains so well. I'm the slimmest I've been since I gave birth and my blood tests are, in the words of my doctor, 'those of a 15-year-old.' It's hard to believe, even for me! Thank you, Jessie, for changing my life."

—Dovra, 64

"I'm a type 1 diabetic. I used to spike up to 300 mg/dL after breakfast. With the information Jessie shares I've learned to keep my glucose steady and my HbA1c has dropped from 7.4 percent to 5.1 percent in three months... I don't snap at my family and friends anymore. I can finally be the person I want to be."

—Lucy, 24

"I have no words to describe how much Jessie's hacks changed my life. Two years ago I stopped taking the pill with the aim of starting a family. I thought it would be easy. But my period never came. After a year, I went to the doctor. I was diagnosed with insulin resistance and PCOS. It was really hard. Thankfully I found Jessie's work and I had hope again... I started implementing her tips. My period came back after two months! All my PCOS symptoms vanished (hair growth, anxiety, constant eating) and now... I have just found out I'm pregnant! I'm so happy I cannot describe it!"

—Annalaura, 49

—Tamara, 31

"I went from 19 percent body fat percentage to 8 percent. So happy! And all this while eating all the foods I love."

—Semir, 24

"I was diagnosed with gestational diabetes at 29 weeks pregnant. So far, after one month of Jessie's tips, huge changes: I feel better than I ever did during the pregnancy, I'm not swollen, my blood sugar levels are steady and managed, my doctor is happy, and, most importantly, I'm not scared anymore. Can't recommend Jessie's work enough for all moms-to-be."

–Paulina, 39

"I've been severely bulimic for nearly 30 years and nothing had ever helped until I started following Jessie and taking care of my glucose levels with her hacks. I haven't binged or purged for two months now, which is unbelievable. I honestly thought it was something that was just a part of me and I would never get over." —Sue, 48

"I've dealt with hypoglycemia (low blood sugar) for a number of years. I was unaware that I could significantly improve it by just changing a few things about how I ate, like the order in which to eat my food. Thanks to Jessie and her evidence-based observations, I've learned how to eat a cookie or chocolate with far fewer negative impacts. Now that my blood sugar is more stable, I'm able to better address my anxiety symptoms and focus on dealing with its root causes."

–Ilana, 37

"In one month I feel like I've been reborn. I've had myalgic encephalomyelitis and chronic fatigue most of my life. I have also struggled with long Covid symptoms. After discovering Glucose Goddess, I feel so much better—I'm healthier, happier, and my energy is back! A huge thank-you."

–Christie, 37

"Over the last two years my hair was falling out like crazy. I was confused and devastated. And then a miracle happened: I followed the Glucose Goddess principles for 40 days and now it's growing back fuller and thicker! I am so happy! Not just that, but I've reversed my prediabetes too (I used to have 110 mg/dL fasting glucose levels, now they are 96). My energy is so much more stable during

the day, and my hunger and thirst levels too. I no longer need that second cup of coffee in the afternoon or that 'emergency' snack. My mental clarity has improved and my adult acne went away. It's amazing how quickly the changes happened. I recommend Jessie to everyone I know."

—Aya, 27

"I have type 1 diabetes. For decades no one could help me with it. Since discovering Glucose Goddess, my cravings disappeared, I was finally able to follow a healthier diet, and my glucose went from 530 mg/dL to 156 in the first days and my insulin dose divided by 10. Oh, and I lost 6 pounds! My doctor and nutritionist were so surprised and now they recommend Glucose Goddess to their patients."

–Mariel, 43

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GLUCOSE Revolution

Lose Weight | Stop Cravings | Get Your Energy Back and Still Eat What You Love

The Life-Changing Power of Balancing Your Blood Sugar

JESSIE INCHAUSPÉ

Simon & Schuster New York London Toronto Sydney New Delhi To my family

JESSIE'S DISCLAIMER

In this book, I make existing scientific discoveries accessible to everyone. I translate them into practical tips. I'm a scientist, not a doctor, so remember that none of this is medical advice.

If you have a medical condition or take any medication, speak to your doctor before using the hacks in this book.

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Dear Reader

What was the last thing you ate?

Go on, think about it for a second.

Did you like it? What did it look like? What did it smell like? What did it taste like? Where were you when you ate it? Who were you with? And why did you pick it?

Food is not only delicious, it is vital to us. Yet sometimes, without our knowing, food can also cause unintended consequences. So now for the harder questions: Do you know how many grams of fat were added to your belly after eating that thing? Do you know if it will cause you to wake up with a pimple tomorrow? Do you know how much plaque it built up in your arteries or how many wrinkles it deepened on your face? Do you know if it's the reason you'll be hungry again in two hours, sleep poorly tonight, or feel sluggish tomorrow?

In short—do you know what the last thing you ate did to your body and mind?

Many of us don't. I certainly didn't before I started learning about a molecule called glucose.

For most of us, our body is a black box: we know its function but not exactly how it works. We often decide what to have for lunch based on what we read or hear, rather than based on what our bodies truly need. "The animal tends to eat with his stomach, and the man with his brain," wrote the philosopher Alan Watts. If only our bodies could speak to us, it would be a different story. We'd know exactly why we were hungry again in two hours, why we slept poorly last night, and why we felt sluggish the next day. We would make better decisions about what we ate. Our health would improve. Our lives would improve. Well, I've got a scoop for you.

As it turns out, our bodies speak to us all the time.

We just don't know how to listen.

Everything we put in our mouth creates a reaction. What we eat affects the 30 trillion cells and 30 trillion bacteria within us. Take your pick: cravings, pimples, migraines, brain fog, mood swings, weight gain, sleepiness, infertility, polycystic ovarian syndrome (PCOS), type 2 diabetes, fatty liver disease, heart disease... are all messages from our bodies that there are problems within.

This is where I blame our environment. Our nutritional choices are influenced by billion-dollar marketing campaigns aimed at making money for the food industry—campaigns for soda, fast food, and candy. These are usually justified under the guise of "what matters is how much you eat—processed foods and sugar aren't inherently bad." But science is demonstrating the opposite: processed foods and sugar *are* inherently bad for us, even if we don't eat them in caloric excess.

Even so, it's because of this misleading marketing that we believe statements such as:

"Weight loss is just about calories in and calories out."

"You should never skip breakfast."

"Rice cakes and fruit juice are good for you."

"Fatty foods are bad for you."

"You need to eat sugar to have energy."

"Type 2 diabetes is a genetic disease that you can't do anything about."

"If you aren't losing weight, it's because you don't have enough willpower."

"Feeling sleepy at 3 p.m. is normal—drink some coffee."

Our misled food choices influence our physical and mental well-being—and stop us from waking up every morning feeling amazing. It may not seem like much that we don't feel amazing every morning, but if you could... wouldn't you? I'm here to tell you there's a way you can.

Scientists have been studying how food affects us for a long time, and we now know more than we ever have on this topic. Exciting discoveries have happened in

the past five years in labs around the world: they've revealed our body's reaction to food *in real time*—and have proven that although *what* we eat matters, *how* we eat it—in which order, combination, and grouping—matters, too.

What the science shows is that in the black box that is our body, there is one metric that affects all systems. If we understand this one metric and make choices to optimize it, we can greatly improve our physical and mental well-being. This metric is the amount of blood sugar, or *glucose*, in our blood.

Glucose is our body's main source of energy. We get most of it from the food we eat, and it's then carried in our bloodstream to our cells. Its concentration can fluctuate greatly throughout the day, and sharp increases in concentration—I call them *glucose spikes*—affect everything from our mood, our sleep, our weight, and our skin to the health of our immune system, our risk for heart disease, and our chance of conception.

You will rarely hear glucose discussed unless you have diabetes, but glucose actually affects each and every one of us. In the last few years, the tools to monitor this molecule have become more readily available. That, in combination with the advancements in science I mentioned above, means that we have access to more data than ever before—and we can use those data to gain insight into our bodies.

This book is organized into three parts: (1) what glucose is and what we mean when we talk about glucose spikes, (2) why glucose spikes are harmful, and (3) what we can do to avoid spikes while still eating the food we love.

In part 1, I explain what glucose is, where it comes from, and why it's so important. The science is out there, but the news isn't spreading nearly fast enough. Regulating glucose is important for everyone, diabetes or no diabetes: 88 percent of Americans are likely to have dysregulated glucose levels (even if they are not overweight according to medical guidelines), and most don't know it. When our glucose levels are dysregulated, we experience glucose spikes. During a spike, glucose floods into our body quickly, increasing its concentration in our bloodstream by more than 30 milligrams per deciliter (mg/dL) in the span of about an hour (or less), then decreasing just as quickly. The spikes lead to harmful consequences.

In part 2, I describe how glucose spikes affect us in the short term-hunger, cravings, fatigue, worse menopause symptoms, migraine, poor sleep, difficulty

managing type 1 diabetes and gestational diabetes, weakened immune system, worsened cognitive function—and in the long term. Dysregulated glucose levels contribute to aging and to the development of chronic diseases such as acne, eczema, psoriasis, arthritis, cataracts, Alzheimer's disease, cancer, depression, gut problems, heart disease, infertility, PCOS, insulin resistance, type 2 diabetes, and fatty liver disease.

If you were to plot your glucose level every minute of every day on a graph, the line between the points would have peaks and valleys. That graph would show your *glucose curve*. When we make lifestyle changes to avoid spikes, we flatten our glucose curves. The flatter our glucose curves, the better. With flatter glucose curves, we reduce the amount of insulin—a hormone released in response to glucose—in our body, and this is beneficial, as too much insulin is one of the main drivers of insulin resistance, type 2 diabetes, and PCOS. With flatter glucose curves, we also naturally flatten our fructose curves—fructose is found alongside glucose in sugary foods—which is also beneficial, as too much fructose increases the likelihood of obesity, heart disease, and nonalcoholic fatty liver disease.

In part 3, I'll show you how you can flatten your glucose curves with 10 simple food hacks that you can easily incorporate into your life. I studied mathematics in college, then biochemistry in grad school, and this training has allowed me to analyze and distill a vast amount of nutritional science. In addition, I have run many experiments on myself wearing a device called a continuous glucose monitor, which shows me my glucose levels in real time. These 10 hacks I will share are simple and surprising. None asks you to never eat dessert again, count calories, or exercise for hours and hours a day. Instead, they ask you to use what you've learned about your physiology in parts I and II—really listening to your body—to make better decisions about *how* you eat. (And that often means putting *more* food on our plate than usual.) In this final section, I will arm you with all the information you'll need to avoid glucose spikes without wearing a monitor yourself.

Throughout this book, I draw on cutting-edge science to explain why these hacks work and tell real-life stories that show them in action. You will see data taken from my own experiments and experiments from the Glucose Goddess community, an online community I have built and grown that has (at printing time) over 200,000 members. And you'll read testimonials from members who have shed weight, curbed their cravings, improved their energy, cleared their skin, rid themselves of PCOS symptoms, reversed type 2 diabetes, done away with guilt, and gained immense self-confidence based on the insights here.

By the end of this book, you'll be able to listen to the messages coming from your body—and understand what to do next. You'll make empowered food decisions, no longer prey to marketing messages. Your health will improve, and so will your life.

I know this for a fact because it happened to me.

How I Got Here

You know the saying "Don't take your health for granted"? Well, I did, until an accident at 19 changed my life.

I was in Hawaii on vacation with friends. One afternoon we went for a hike in the jungle, and we decided that jumping off a waterfall would be a great idea (spoiler alert: it was not).

It was the first time I had ever tried anything like it. My friends had told me what to do: "Keep your legs really straight so that your feet go into the water first."

"Got it!" I said, and off I went.

Totally terrified, I forgot that advice as soon as I leapt off the edge of the cliff. I did *not* land feet first—I landed butt first. The pressure from the water created a shock wave up my spine, and, like dominos falling, each of my vertebrae compressed.

Shack-shack-shack-shack-shack-shack, they went—all the way up to my second thoracic vertebra, which exploded into fourteen pieces under the pressure.

My life exploded into pieces, too. After that, I divided it in two: *before* the accident and *after* the accident.

I spent the next two weeks immobilized in a hospital bed, waiting to undergo spinal surgery. As I lay awake, I kept mentally picturing what was going to happen, unable to fully believe it: the surgeon was going to open my torso from the side, at my waist, then from the back, at the level of the broken vertebra. He was going to take out the bone fragments as well as the two surrounding disks, then fuse three vertebrae together and drill six three-inch metal rods into my spine. With an *electric drill*. The risks associated with the procedure terrified me: lung perforation, paralysis, and death. It wasn't as though I had a choice, though. The vertebral pieces were pressing against the membrane of my spinal cord. Any shock (even tripping on a stair) could lead them to rupture the membrane, paralyzing me from the waist down. I was scared. I imagined myself on the operating table, bleeding out, and the doctors giving up. I imagined my life ending like that, all because I had gotten scared in midair doing something that was supposed to be fun.



The finished result. (No, I don't set off the alarm at airport security, and yes, this stays in forever.)

The day of the surgery approached slowly but surely, though when it finally arrived, I wished it hadn't. As the anesthesiologist began putting me under for the eight-hour procedure, I wondered if she would be the last person I ever saw. I prayed. I wanted to live. If I could wake up on the other side of this, I knew I would be filled with gratitude for the rest of my life.

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I woke up. It was the middle of the night, and I was alone in a recovery room. At first, I felt immense relief: I was alive. Then I felt pain. Correction: I felt a *lot* of pain. The new hardware was like an iron fist squeezing my spine. I tried to sit up to call a nurse. After a few tries he showed up, moody and dismissive. It was a dismal way to be greeted back into the world. I cried. I just wanted my mom.

It's true, I was filled with gratitude: deep, profound gratitude to be alive. But I was also in agony. My entire back was throbbing, I couldn't move an inch without feeling that my stitches were going to rip open, and the nerves in my legs were on fire for days. I was allowed a shot of painkillers every three hours. Like clockwork, a nurse would come into my room, pinch the fat on my thigh, and administer the needle—alternating legs each time. I couldn't sleep because everything hurt so much, nor eat because the opioids made me nauseous. I lost 25 pounds in two weeks. I felt at once lucky and stupid, sorry for what had happened, guilty for putting my loved ones through this, and at a loss for what to do.

My body healed in a matter of months, but then my mind and soul were the ones that needed rehab. I felt disconnected from reality. When I looked at my hands, they didn't seem like mine. When I looked in the mirror, I was terrified. Something was wrong. But I didn't know what.

Unfortunately, no one else did, either. From the outside I seemed well again. So I kept my suffering to myself. When someone asked me how I was, I answered, "I'm great, thanks." If I was being honest, though, I would have responded, "I feel like a stranger in my own body, I can't look in the mirror without losing my mind, and I'm scared to death that I'm never going to be okay again." That was later diagnosed as depersonalization-derealization disorder, a mental disorder where people can't connect to themselves or the reality around them.

I was living in London at the time, and I remember sitting in the Tube, looking at the commuters opposite me, wondering how many of them were also going through something difficult and hiding it, just like I was. I dreamed that someone on the train would recognize my suffering and tell me that they understood—that they had felt as I had and come back to themselves. But of course, in vain. The people sitting three feet away had no idea what was going on inside me. *I* barely knew what was going on inside me. And I had no idea what was going on inside them and whether or not they were suffering, too.

It became abundantly clear to me that it's hard to know what is going on inside our bodies. Even when we can give voice to our emotions—gratitude, pain, relief, sadness, and more—we must then find out why. Where do we start when we don't feel okay?

I remember telling my best friend, "Nothing matters—not school, not work, not money—nothing matters more than being healthy, physically and mentally." It was the deepest conviction I had ever felt.

And that was how, four years later, I ended up on the train headed thirty-nine miles south of San Francisco, to an office in Mountain View. Having decided to figure out how to communicate with my body, I felt that I needed to work at the forefront of health technology. In 2015, that forefront was genetics.

I had landed an internship at the startup 23andMe (so named because we all have twenty-three pairs of chromosomes that carry our genetic code). And I wanted to be there more than I had ever wanted to be anywhere.

My thinking went like this: My DNA created my body, so if I can understand my DNA, I can understand my body.

I worked as a product manager. I had two degrees under my belt and a passion for making complicated subjects simple. I was putting those to good use: I was in charge of explaining genetic research to our customers and encouraging them to participate by answering surveys. We collected data as it had never been done before: digitally, online, on millions of people at once. Each customer was a citizen scientist, contributing to advancing our collective understanding of DNA. The goal was to innovate in the field of personalized medicine and deliver health recommendations unique to each individual.

It was the best place, with the best people, the best data, and the best mission. The atmosphere at the office was electric.

I grew close to the other scientists on the research team, then read through all the papers they had published and started asking questions. But to my disappointment, little by little, it became clear to me that DNA wasn't as predictive as I had thought. For instance, your genes can increase your likelihood of developing type 2 diabetes, but they can't tell you for sure whether you'll get it. Looking at your DNA can only give you a sense of what *might* happen. For most chronic conditions, from migraines to heart disease, the cause ends up being much more attributable to "lifestyle factors" than to genetics. In short, your genes don't determine how you feel when you wake up in the morning.

In 2018, 23andMe launched a new initiative. It was led by the Health Research & Development team, which was in charge of coming up with cutting-edge ideas. They were discussing... *continuous glucose monitors*.

Continuous glucose monitors (CGMs) are small devices worn on the back of your arm that track glucose levels. They were created to replace the finger pricks that people with diabetes have been using for decades and that give glucose measurements only a few times a day. With a CGM, glucose levels are measured every few minutes. Now entire glucose curves are revealed and conveniently sent to your smartphone. It was a real game changer for people with diabetes, who rely on glucose measurements to dose their medication.



Continuous glucose monitors, or CGMs (the line), capture glucose curves that traditional finger prick tests (white circles) miss.

Soon after 23andMe launched the project, top athletes started to wear CGMs, too, using glucose measurements to optimize their athletic performance and endurance. And then a few scientific papers were published on studies using the devices that showed that nondiabetics could have highly dysregulated glucose levels, too.

When the Health Research & Development team announced a new study looking into food response in nondiabetics, I immediately asked to be a part of it.

I was always on the lookout for something that could help me understand my own body. But I definitely did not expect what came of it.

A nurse came to our office to apply the device to the four of us who had volunteered. We waited for her in a glass-walled conference room; then we literally rolled up our sleeves. After wiping the back of my left upper arm with an alcohol swab, the nurse placed an applicator against my skin. I was told that a needle would go in and insert a tiny 3-millimeter-long fiber (an electrode) under my skin. Then the needle would come out, leaving the fiber in place and an adhesive transmitter on top of it. It would stay in for two weeks.

One, two... click! The monitor was in—and it was almost painless.

The sensor needed 60 minutes to start up, but then, with my phone handy, I could check my glucose levels at any time.^I The numbers showed me how my body responded to what I ate (or didn't) and how I moved (or didn't). I was getting messages from the *inside*. Well, hello there, body!

When I felt great, I checked my glucose. When I felt terrible, I checked my glucose. When I worked out, when I woke up, when I went to sleep, I checked my glucose. My body was talking to me through the spikes and dips on my iPhone screen.

I ran my own experiments and took note of everything. My lab was my kitchen, my test subject was myself, and my hypothesis was that food and movement influence glucose through a set of rules that we could define.

Quite quickly, I started noticing strange patterns: Nachos on Monday, big spike. Nachos on Sunday, no spike. Beer, spike. Wine, no spike. M&Ms after lunch, no spike. M&Ms before dinner, spike. Tired in the afternoon: glucose had been high at lunch. Lots of energy all day: glucose was very steady. Big night out with friends: glucose roller coaster through the night. Stressful presentation at work: spike. Meditation: steady. Cappuccino when I was rested: no spike. Cappuccino when I was tired: spike. Bread: spike. Bread and butter: no spike.

Things got even more interesting as I linked my mental states to my glucose levels. My brain fog (which I had started experiencing since my accident) often correlated with a big spike, sleepiness with a big dip. Cravings correlated with a glucose roller coaster–spikes and dips in quick succession. When I woke up feeling groggy, my glucose levels had been high throughout the night.