

AUTHOR OF THE INTERNATIONAL BESTSELLER THE WILLPOWER INSTINCT

KELLY MCGONIGAL, PH.D.

THE
UPSIDE
OF
STRESS

WHY STRESS IS GOOD FOR YOU,
and HOW TO GET GOOD AT IT

PRAISE FOR *THE UPSIDE OF STRESS*

“*The Upside of Stress* delivers an important truth: It is better to chase meaning than try to avoid discomfort. Through the insights of this book, you’ll find your courage to pursue what matters most and trust yourself to handle any stress that follows.”

—NILOFER MERCHANT, founder and CEO of Rubicon Consulting, Silicon Valley strategist, and author of *The New How*

“Kelly McGonigal has pulled back the curtain to reveal what allows exceptional people and organizations like my Navy SEAL brotherhood to thrive through adversity. True excellence is only achieved under great adversity and by embracing those challenges with a positive mindset.”

—SCOTT BRAUER, cofounder of Acumen Performance Group and former Navy SEAL and U.S. Navy officer

“The upside of Kelly McGonigal is that she not only shows how what we thought we knew about stress was backward, but also that getting it right will change your life for the better. This book provides an accessible user’s guide to leveraging the most cutting-edge research in psychology and neuroscience to enhance your health and well-being.”

—MATTHEW D. LIEBERMAN, PhD, chair of Social Psychology at University of California, Los Angeles

“For those individuals and teams that discover stress *is* life’s secret ingredient, they will be rewarded with expanded self-confidence and rapidly growing organizations.”

—ROBERT C. DAUGHERTY, chairman of Knowledge Investment Partners

“Kelly McGonigal debunks decades of myths that have persisted around stress. *The Upside of Stress* is research based, immensely practical, compelling, and insightful from the first page. This book will be a game changer for countless people.”

—JIM LOEHR, EdD, cofounder of the Human Performance Institute and author of *The New Toughness Training for Sports*

PRAISE FOR *THE WILLPOWER INSTINCT*

“Tired of the endless debate about whether man possesses free will or is predestined to lounge about gobbling Krispy Kreme donuts while watching TV? If you want action, not theory, *The Willpower Instinct* is the solution for the chronically slothful.”

—*USA Today*

“A fun and readable survey of the field, bringing willpower wisdom out of the labs.”

—*Time* magazine

“Refreshingly easy to read and peppered with stories of people who have successfully used its methods, *The Willpower Instinct* is a new kind of self-help book. Using science to help explain the ‘why,’ and strategies for the ‘how,’ McGonigal has created a book that will appeal to those who want to lose a few pounds as well as those who are eager to understand why they just cannot seem to get through their to-do list. A must-read for anyone who wants to change how they live in both small and big ways.”

—*BookPage*

“*The Willpower Instinct* combines the braininess of a Malcolm Gladwell bestseller with the actual helpfulness of an Idiots’ Guide to not being lazy. If you are trying to lose weight, train for an athletic event, become more successful at work, rid yourself of toxic habits . . . heck, if you’re human, you need to read this book.”

—*LibraryThing*

“This book has tremendous value for anyone interested in learning how to achieve their goals more effectively. McGonigal clearly breaks down a large body of relevant scientific research and its applications, and shows that awareness of the limits of willpower is crucial to our ability to exercise true self-control.”

—JEFFREY M. SCHWARTZ, MD, author of the bestselling *Brain Lock*

“What a liberating book! Kelly McGonigal explains the scientific reality of willpower, exploding the myths that most of us believe. Stronger willpower—based on inspiring facts, not oppressive nonsense—is finally within everyone’s reach.”

—GEOFF COLVIN, author of *Talent Is Overrated*

The
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and how to get good at it

Kelly McGonigal, Ph.D.

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AUTHOR'S NOTE

Throughout the book, when only first names are used, the names are pseudonyms, and some details of the stories have been changed to protect individuals' privacy. Whenever possible, I obtained permission to use these stories. If direct quotes are included in the stories, they are from email or personal exchanges and have not been altered. In all other cases, where full names are used, all quotes and details are from interviews I conducted and/or from published sources cited in the notes.

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“If you have butterflies in your stomach, invite them into your heart.”

—COOPER EDENS

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introduction

IF YOU HAD to sum up how you feel about stress, which statement would be more accurate?”

- A) Stress is harmful and should be avoided, reduced, and managed.
- B) Stress is helpful and should be accepted, utilized, and embraced.

Five years ago, I would have chosen A without a moment’s hesitation. I’m a health psychologist, and through all my training in psychology and medicine, I got one message loud and clear: Stress is toxic.

For years, as I taught classes and workshops, conducted research, and wrote articles and books, I took that message and ran with it. I told people that stress makes you sick; that it increases your risk of everything from the common cold to heart disease, depression, and addiction; and that it kills brain cells, damages your DNA, and makes you age faster. In media outlets ranging from the *Washington Post* to *Martha Stewart Weddings*, I gave the kind of stress-reduction advice you’ve probably heard a thousand times. Practice deep breathing, get more sleep, manage your time. And, of course, do whatever you can to reduce the stress in your life.

I turned stress into the enemy, and I wasn’t alone. I was just one of many psychologists, doctors, and scientists crusading against stress. Like them, I believed that it was a dangerous epidemic that had to be stopped.

But I’ve changed my mind about stress, and now I want to change yours.

Let me start by telling you about the shocking scientific finding that first made me rethink stress. In 1998, thirty thousand adults in the United States were asked how much stress they had experienced in the past year. They were also asked, Do you believe stress is harmful to your health?

Eight years later, the researchers scoured public records to find out who among the thirty thousand participants had died. Let me deliver the bad news first. High levels of stress increased the risk of dying by 43 percent. But—and this is what got my attention—that increased risk applied only to

people who also believed that stress was harming their health. People who reported high levels of stress but who did not view their stress as harmful were not more likely to die. In fact, they had the lowest risk of death of anyone in the study, even lower than those who reported experiencing very little stress.

The researchers concluded that it wasn't stress alone that was killing people. It was the combination of stress and the *belief* that stress is harmful. The researchers estimated that over the eight years they conducted their study, 182,000 Americans may have died prematurely because they believed that stress was harming their health.

That number stopped me in my tracks. We're talking over twenty thousand deaths a year! According to statistics from the Centers for Disease Control and Prevention, that would make "believing stress is bad for you" the fifteenth-leading cause of death in the United States, killing more people than skin cancer, HIV/AIDS, and homicide.

As you can imagine, this finding unnerved me. Here I was, spending all this time and energy convincing people that stress was bad for their health. I had completely taken for granted that this message—and my work—was helping people. But what if it wasn't? Even if the techniques I was teaching for stress reduction—such as physical exercise, meditation, and social connection—were truly helpful, was I undermining their benefit by delivering them alongside the message that stress is toxic? Was it possible that in the name of stress management, I had been doing more harm than good?

I admit, I was tempted to pretend that I never saw that study. After all, it was just one study—and a correlational study at that! The researchers had looked at a wide range of factors that might explain the finding, including gender, race, ethnicity, age, education, income, work status, marital status, smoking, physical activity, chronic health condition, and health insurance. None of these things explained why stress beliefs interacted with stress levels to predict mortality. However, the researchers hadn't actually manipulated people's beliefs about stress, so they couldn't be sure that it *was* people's beliefs that were killing them. Was it possible that people who believe that their stress is harmful have a different kind of stress in their lives—one that is, somehow, more toxic? Or perhaps they have personalities that make them particularly vulnerable to the harmful effects of stress.

And yet, I couldn't get the study out of my head. In the midst of my self-doubt, I also sensed an opportunity. I'd always told my psychology students at Stanford University that the most exciting kind of scientific finding is one that challenges how you think about yourself and the world. But then I found the tables were turned. Was I ready to have my own beliefs challenged?

The finding I had stumbled across—that stress is harmful only when you believe it is—offered me an opportunity to rethink what I was teaching. Even more, it was an invitation to rethink my own relationship to stress. Would I seize it? Or would I file away the paper and continue to crusade against stress?

TWO THINGS in my training as a health psychologist made me open to the idea that how you think about stress matters—and to the possibility that telling people “Stress will kill you!” could have unintended consequences.

First, I was already aware that some beliefs can influence longevity. For example, people with a positive attitude about aging live longer than those who hold negative stereotypes about getting older. One classic study by researchers at Yale University followed middle-aged adults for twenty years. Those who had a positive view of aging in midlife lived an average of 7.6 years longer than those who had a negative view. To put that number in perspective, consider this: Many things we regard as obvious and important protective factors, such as exercising regularly, not smoking, and maintaining healthy blood pressure and cholesterol levels, have been shown, on average, to add less than four years to one's life span.

Another example of a belief with long-reaching impact has to do with trust. Those who believe that most people can be trusted tend to live longer. In a fifteen-year study by Duke University researchers, 60 percent of adults over the age of fifty-five who viewed others as trustworthy were still alive at the end of the study. In contrast, 60 percent of those with a more cynical view on human nature had died.

Findings like these had already convinced me that when it comes to health and longevity, some beliefs matter. But what I didn't know yet was whether how you think about stress was one of them.

The second thing that made me willing to admit I might be wrong about stress was what I know about the history of health promotion. If telling

people that stress is killing them is a bad strategy for public health, it wouldn't be the first time a popular health promotion strategy backfired. Some of the most commonly used strategies to encourage healthy behavior have been found to do exactly the opposite of what health professionals hope.

For example, when I speak with physicians, I sometimes ask them to predict the effects of showing smokers graphic warnings on cigarette packs. In general, they believe that the images will decrease smokers' desire for a cigarette and motivate them to quit. But studies show that the warnings often have the reverse effect. The most threatening images (say, a lung cancer patient dying in a hospital bed) actually *increase* smokers' positive attitudes toward smoking. The reason? The images trigger fear, and what better way to calm down than to smoke a cigarette? The doctors assumed that the fear would inspire behavior change, but instead it just motivates a desire to escape feeling bad.

Another strategy that consistently backfires is shaming people for their unhealthy behaviors. In one study at the University of California, Santa Barbara, overweight women read a *New York Times* article about how employers are beginning to discriminate against overweight workers. Afterward, instead of vowing to lose weight, the women ate twice as many calories of junk food as overweight women who had read an article on a different workplace issue.

Fear, stigma, self-criticism, shame—all of these are believed, by many health professionals, to be powerfully motivating messages that help people improve their well-being. And yet, when put to the scientific test, these messages push people toward the very behaviors the health professionals hope to change. Over the years, I've seen the same dynamic play out: Well-intentioned doctors and psychologists convey a message they think will help; instead, the recipients end up overwhelmed, depressed, and driven to self-destructive coping behaviors.

After I first discovered the study linking beliefs about stress to mortality, I started to pay more attention to how people reacted when I talked about the harmful effects of stress. I noticed that my message was met with the same kind of overwhelming feeling I would expect from medical warnings intended to frighten or shame. When I told exhausted undergraduate students about the negative consequences of stress right before final exam period, the students left the lecture hall more depressed. When I shared

scary statistics about stress with caregivers, sometimes there were tears. No matter the audience, nobody ever came up afterward to say, “Thank you so much for telling me how toxic my stressful life is. I know I can get rid of the stress, but I’d just never thought to do it before!”

I realized that as much as I believed talking about stress was important, how I was doing it might not be helping. Everything I had been taught about stress management started from the assumption that stress is dangerous and that people needed to know this. Once they understood how bad stress was, they would reduce their stress, and this would make them healthier and happier. But now, I wasn’t so sure.



MY CURIOSITY about how your attitude toward stress influences its impact sent me on a search for more evidence. I wanted to know: Does how you think about stress really matter? And if believing that stress is bad *is* bad for you, what’s the alternative? Is there anything good about stress that’s worth embracing?

As I pored over scientific studies and surveys from the past three decades, I looked at the data with an open mind. I found evidence for some of the harmful effects we fear but also for benefits we rarely recognize. I investigated the history of stress, learning more about how psychology and medicine became convinced that it is toxic. I also talked to scientists who are part of a new generation of stress researchers, whose work is redefining our understanding of stress by illuminating its upside. What I learned from these studies, surveys, and conversations truly changed the way I think about stress. The latest science reveals that stress can make you smarter, stronger, and more successful. It helps you learn and grow. It can even inspire courage and compassion.

The new science also shows that changing your mind about stress can make you healthier and happier. How you think about stress affects everything from your cardiovascular health to your ability to find meaning in life. The best way to manage stress isn’t to reduce or avoid it, but rather to rethink and even embrace it.

So, my goal as a health psychologist has changed. I no longer want to help you get rid of your stress—I want to make you better at stress. That is the promise of the new science of stress, and the purpose of this book.

About This Book

This book is based on a course I teach through Stanford Continuing Studies called the New Science of Stress. The course, which enrolls people of all ages and from all walks of life, is designed to transform the way we think about and live with stress.

It's helpful to know a little about the science behind embracing stress for two reasons. First, it's fascinating. When the subject is human nature, every study is an opportunity to better understand yourself and those you care about. Second, the science of stress has some real surprises. Certain ideas about stress—including the central premise of this book: that stress can be good for you—are hard to swallow. Without evidence, it would be easy to dismiss them. Seeing the science behind these ideas can help you consider them and how they might apply to your own experiences.

The advice in this book isn't based on one shocking study—even though that's what inspired me to rethink stress. The strategies you'll learn are based on hundreds of studies and the insights of dozens of scientists I've spoken with. Skipping the science and getting straight to the advice doesn't work. Knowing what's behind every strategy helps them stick. So this book includes a crash course in the new science of stress and what psychologists call *mindsets*. You'll be introduced to rising-star researchers and some of their most intriguing studies—all in a way that I hope any reader can enjoy. If you have a bigger appetite for scientific details and want even more information, the notes at the end of this book will let you dig deeper.

But most important, this is a practical guide to getting better at living with stress. Embracing stress can make you feel more empowered in the face of challenges. It can enable you to better use the energy of stress without burning out. It can help you turn stressful experiences into a source of social connection rather than isolation. And finally, it can lead you to new ways of finding meaning in suffering.

Throughout this book, you'll find two types of practical exercises to try:

The Rethink Stress exercises in Part 1 are designed to shift your way of thinking about stress. You can use them as writing prompts or as any other forms of self-reflection that work for you. You might think about the topic while you're on the treadmill at the gym or riding the bus to work. You can make it a private reflection or use it to start a conversation. Talk about it

with your spouse over dinner or bring it up at your parents' group at church. Write a Facebook post about it and ask your friends for their thoughts. Along with helping you think differently about stress in general, these exercises also encourage you to reflect on the role that stress plays in your life, including in relation to your most important goals and values.

The Transform Stress exercises in Part 2 include on-the-spot strategies to use in moments of stress, as well as self-reflections that will help you cope with specific challenges in your life. They will help you tap into your reserves of energy, strength, and hope when you're feeling anxious, frustrated, angry, or overwhelmed. Transform Stress exercises rely on what I call "mindset resets"—shifts in how you think about the stress you are experiencing in the moment. These mindset resets can alter your physical stress response, change your attitude, and motivate action. In other words, they transform the effect that stress is having on you in the very moment you are feeling stressed. These exercises are based on scientific studies, and I encourage you to treat them like experiments yourself. Try them out and see what works for you.

All the exercises in this book have been shaped by the feedback of my students and by my experiences sharing these ideas with communities around the world, including with educators, medical professionals, executives, professional coaches, family therapists, and parents. I've included the practices that people tell me have been personally and professionally meaningful, leading to change in their own lives and in the communities they work with.

Together, these exercises will help you change your relationship with stress. It might feel weird to think about having a relationship with stress, especially if you're used to thinking of stress as something that happens *to* you. But you do have a relationship with stress. You might feel victimized by stress—helpless against it or held hostage by it. Or maybe yours is a love-hate relationship—relying on stress to reach your goals but worried about its long-term consequences. Perhaps you feel like you are in a constant struggle with stress, trying to reduce, avoid, or manage it without ever being able to control it. Or maybe you feel like the stressful experiences in your past have too much sway over your present self. You might view stress as your enemy, an unwanted guest, or a partner you aren't quite sure you can trust. Whatever your current relationship with stress, how you think about it and how you respond to it both play an important

role in how it affects you. By rethinking and even embracing stress, you can change its effect on everything from your physical health and emotional well-being to your satisfaction at work and hopefulness about the future.

Throughout the book, we'll also consider how the science of stress and mindsets can help you support the people, communities, and organizations you care about. How can we nurture resilience in our loved ones? What would it look like for a workplace culture to embrace stress? How do people build support networks to deal with trauma or loss? I'll introduce you to some of my favorite programs that are using this science to create communities that are able to transform suffering into growth, meaning, and connection. These programs can serve as models and inspiration, demonstrating what it looks like to translate science into service, and abstract ideas into actions with impact.

Will This Book Help Me with My Stress?

So far, I've avoided defining *stress*—in part because the word has become a catchall term for anything we don't want to experience and everything that's wrong with the world. People use the word *stress* to describe both a traffic delay and a death in the family. We say we're stressed when we feel anxious, busy, frustrated, threatened, or under pressure. On any given day, you might find yourself getting stressed out by email, politics, the news, the weather, or your growing to-do list. And the biggest source of stress in your life right now could be work, parenting, dealing with a health crisis, getting out of debt, or going through a divorce. Sometimes we use the word *stress* to describe what's going on inside us—our thoughts, emotions, and physical responses—and sometimes we use it describe the problems we face. *Stress* is commonly used to describe trivial irritations, but it's just as likely to be shorthand for more serious psychological challenges such as depression and anxiety. There is no single definition of *stress* that can encompass all these things, and yet we use that word to refer to all of them.

The fact that we use the word *stress* to describe so much of life is both a blessing and a curse. The downside is that it can make talking about the science of stress tricky. Even scientists—who usually nail down their definitions—use *stress* to describe a mind-boggling array of experiences