

Third Edition

STRESS MANAGEMENT AND PREVENTION

Applications to Daily Life

DAVID D. CHEN



Stress Management and Prevention

“This third edition has evolved into a more ‘mindfulness’ approach to stress management within a positive psychology framework. The student centered explanations to the neuroscience underlying the concepts are presented at a level of complexity that is appreciated by science majors, but reasonably comprehensible to the non-science major as well. The video-based activities and the ‘Reflection’ exercises provide self-assessment of individual stress levels, which enhances active student engagement. Text content addresses multiple individual and interpersonal health belief models, thus successfully linking theory to practice.”—**Ellen Lee, RN, MS, Ed.D., CHES**, adjunct faculty, Department of Health Science, California State University, Fullerton

“An excellent book from which all students of stress management will benefit. From clearly presented theories and concepts to vivid, real-world examples, the information provided by Dr. Chen is stimulating and thought-provoking. Dr. Chen takes more of a positive psychological perspective when presenting stress management topics, not leaving out cultural differences that may exist. The highlighted Reflection boxes are especially helpful in allowing students time to ponder over the information recently read and applying it to their everyday life experiences.”—**Dr. Steven J. Radlo, PhD**, associate professor of stress management and sport & exercise psychology, Western Illinois University

“*Stress Management and Prevention: Applications to Daily Life* is a well-organized and remarkable tool for teaching stress management. Students will find the material interesting to read and the exercises throughout the text useful and impactful. Dr. Chen’s book delivers scientific research about the effects of stress, along with holistic modalities designed to help students increase their coping skills and the quality of their lives.”—**Karen Fazio, MSG, HHP**, gerontologist, holistic health practitioner, health science and gerontology instructor, California State University, Fullerton

“*Stress Management and Prevention* by Dr. Chen is both insightful and comprehensive, while being understandable and straightforward. He has written a book that anyone can digest, regardless of their stress management knowledge. The real-life examples are immediately applicable, allowing for instant absorption. A fantastic piece of work.”—**Gina Harmston, MS**, Department of Kinesiology, Department of Health Science, California State University, Fullerton

Gain a critical understanding of the nature of stress from a positive psychology framework that allows you to look beyond a simple pathology of stress-related symptoms. This new edition of *Stress Management and Prevention* integrates Eastern and Western concepts of stress while emphasizing an experiential approach to learning through the use of exercises, activities, and self-reflection. This student-friendly text contains chapters on conflict resolution, mindfulness meditation, time management, prevention of health risks, and cognitive restructuring. Included throughout are an emphasis on mindfulness and the neuroscience behind it, more theories, and new techniques for stress reduction and time management. An updated companion website includes even more video-based activities so students can see techniques in practice.

David D. Chen, PhD, is a professor of kinesiology at California State University, Fullerton.

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DAVID D. CHEN

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A Personal Introduction

From the Author to the Students

Welcome to the journey of stress management and prevention! I feel that I must be one of the luckiest guys in the world I know. Ironically, it all has to do with being stressed out during the earlier part of my career (you will get the story later in this introduction). The usual approach to the subject of stress is that it is altogether a bad thing that must be “managed,” if not eliminated, at all costs. However, when you take a class on stress management, learning such stress reduction techniques as deep breathing, mindfulness meditation, progressive muscle relaxation, yoga, tai chi, journaling, time management, and visualization, to mention a few of the options, you will find out how much it will transform your life for the better. Like many of my students, they may regret not having taken it at an earlier time. But I have to give you a sobering fact, namely, learning and practicing stress management and prevention skills requires lots of self-discipline, significant time, energy, and commitment in order to make the changes last over time.

The reality is that most people don’t stick with diets, exercise programs, or stress-reduction plans for very long. That is one reason why there is always a new best-selling book on the market that promises immediate, dramatic results—with little effort. That is also why, a few years after you graduate from college, little that you learned will stick with you. One reason for this is a lack of relevance of the content to your personal interests and goals. Another is that the material may not have been introduced to you in a way that was compelling or interesting.

KEY QUESTIONS

- What are the reasons that you have not maintained important changes in your life, especially those related to your health?
- In which classes have you learned the most? What contributed to that learning remaining a permanent part of your life?
- What have been the most critical incidents that have occurred in your life and how have they impacted on the choices you have made, as well as those you are considering in the future?
- After reading the personal story of the author, what might you expect from what will follow?

You may *never* have a learning experience that is more directly related to your success and satisfaction in life than this class on stress management and prevention. My goal is to assist your instructor so that this experience will not only teach you some

new skills to reduce the stress in your life in the present and the future, but also to help you approach the inevitable pressures in life in such a way that you can perform at peak levels—whether in school, on the job, or in the relationships that mean the most to you.

You already know, from previous experience, what it takes not only to learn something, but to make it part of who you are and the ways you function characteristically. In order for the methods in this class to become a permanent part of your repertoire, several factors must be operating:

1. *You must actively engage with the content.* You can't just read about the subject, or listen to lectures about it; you must think critically about the material and try it out for yourself.
2. *You must personalize and adapt the learning to your particular needs.* With anything that you read it is legitimate for you to ask yourself what this has to do with your life. You are the one who must figure out ways to take these ideas and apply them in ways that mean the most to you.
3. *Practice and rehearsal are a necessary part of any systematic learning program.* At first, new skills seem awkward and time-consuming. Over time, with diligence and effort, they become as easy for you as driving a car (which once seemed awkward and frustrating). In order for you to be willing to devote the time and energy into practicing new skills, without increasing your stress levels, you'll need to feel as if the effort is worth the outcome.
4. *Finally, you need a support system to reinforce your efforts.* It may be fairly difficult for you to undertake new behaviors unless you are surrounded by those who support what you are doing. That is one distinct advantage of having classmates who are part of this same journey.

With these cautions in mind, I invite you to keep an open mind to the ideas that will be presented to you, as well as to think critically and realistically about what you are prepared to do in your life, and what you are not. You certainly have enough stressful circumstances that you don't need additional burdens, or commitments, unless they can be demonstrated to lighten your load significantly. I aim to show you how to do that—not just from solid theory and research, but also based on your own experiences.

A textbook such as this not only involves presentations of content, but also engages you in a process. This is, after all, a very personal subject: I am talking about those times when you are most vulnerable and most helpless. If I expect you to reflect honestly on those instances when you feel most flooded by anxiety (as well as what you can do about it), then I must be willing to do the same to earn your trust and respect. My expertise in the areas of kinesiology, sport psychology, cognitive psychology, pedagogy, health science, and stress, tai chi, and qigong is informed not only by my research, teaching, and practice, but also by my personal history.

I first felt attracted to the subject of stress management because I experienced so much stress in my life. At age 23, I came to pursue my graduate studies in America with very limited financial resources and no relatives here. I left behind my family and my wife whom I had married just a few weeks prior to boarding the plane. I was totally alone and utterly unsure about my future.

After several days spent recuperating from jet lag and adjusting to my new home in rural Florida, a new semester immediately started. I was scheduled to take four graduate classes that were intense and demanding. I worked my heart out for these courses, each of which required a huge term paper (in English rather than Mandarin!). I spent seven consecutive sleepless nights cranking out those papers. Although I was pleased to receive excellent grades, I also began to experience chest pains, as well as difficulty breathing. I medicated myself with aspirin and tried to take it easy, and noticed some relief of symptoms. Later, I began jogging regularly and playing basketball, which helped immensely.

My stress started to build again about the time I completed my graduate studies. First, we found out that my wife was pregnant with our first child. Second, I began my

first teaching job and had to prepare four conference presentations simultaneously. On the inside, I felt almost paralyzed with stress, but I behaved as if I had everything under control.

During this time, I stopped exercising and began eating junk food because it was cheap and convenient. I recognized the same symptoms of breathlessness that I had experienced earlier. After strolling for a few minutes, I started to feel light-headed and experienced increasing chest pains. I fell to the ground, clutching my chest, in the throes of what I believed was a massive heart attack.

I recovered that evening, figuring it had been a false alarm. When the symptoms returned the following morning, my wife drove me immediately to the hospital. We had no health insurance and very little money, so the thought of paying the hospital bill only added to my sense of impending doom. By the time the doctor came in to see me, I burst out sobbing. I cried so hard that I couldn't speak. After consulting with several specialists, I eventually learned that my heart-attack-like symptoms were induced by severe stress. Until I learned to control these symptoms, I would remain vulnerable to both stomach ailments as well as other distressing feelings.

This experience got my attention like nothing else could. I began to examine the ways I conducted my life, especially my tendency to procrastinate and put things off until the last minute. I had been a competitive athlete in China, but had virtually given up exercise after arriving in America because I was so driven to succeed academically. Within days after the hospital visit, I started practicing tai chi, a form of moving meditation I will teach you later in this book.

I wish I could tell you that I lived happily ever after—that upon embarking on this plan to manage the pressures in my life, I have been stress-free ever since. However, life stressors seemed to arise in proportion to the speed I learned to adapt.

Playing basketball or practicing tai chi didn't seem to put a dent in the pressure that had now migrated from my chest down to my stomach. I began experiencing severe stomach problems. Rather than surrendering, however, I decided to apply what I had been learning all these years about health. I knew that, in order to deal with severe stress like this, I had to take care of my body, my mind, *and* my soul. I learned that physical fitness is just one component of well-being. In order to be healed and healthy, I must enhance the other parts of my life including work productivity, interpersonal communication, and spirituality. Most of what you will read in this book I have tested personally and have applied to my own life.

One of my great opportunities came when I was assigned to teach stress management, a general education class on our campus. My skills and knowledge about stress



management and prevention began to expand and deepen with teaching. Imagine that my students only hear me teach the concepts and skills of stress reduction once while I have heard myself countless times to the point that these great ideas find their way into my feelings and actions. Another important skill I learned to manage my stress is counting blessings and showing gratitude. So, let me sincerely show my gratitude to my mentor and collaborator Dr. Jeffrey Kottler who generously let me take over the book. I am grateful to my wife and children whose love and support sustained my motivation during the revision of this edition.

FOR REFLECTION

Note: This is the first of many reflective exercises and activities that you will be asked to complete throughout this book, as well as the accompanying workbook. They are intended to help you put into practice the principles associated with lasting change. In other words, if you want the things you learn in this class to stick with you over your lifetime, rather than merely memorize and forget them after the semester is over, then it is critical for you to apply the ideas to your own life. This means taking an active part in reflecting on the content and making it relevant to your particular situation. Personalizing the concepts and applying the principles to your daily life will help you make changes in your own life.

In the personal story of your author, I disclosed a few of the critical incidents of my life that have most shaped who I am, including career and personal lifestyle choices. Note below several of *your* most significant life experiences that influenced you, for better or worse.

- 1.
- 2.
- 3.
- 4.

How have these particular incidents continued to influence and affect you?

S U M M A R Y

In this personal introduction to the text, I have tried to be honest and realistic regarding what lies ahead. I can't imagine that there is any class you could ever take that could be more valuable and transformative than one that teaches you to prevent and manage stress. Such skills will not only help you to be more productive and perform at higher levels in all areas of your life but, just as importantly, will help you to find greater enjoyment in what you are doing and how you are living.

My personal introduction was intended to demonstrate that although I have some expertise in the area of stress, conducting research in this area and teaching the class for many years, I am also a work in progress. I so enjoy studying this area because I find it so personally relevant. I hope my own story intrigues and inspires you enough to trust that what I have to offer has been tested not only by research in the field, but by my own experiences. As much as possible, I try to practice what I will teach you.

No matter what you view as your own strengths or weaknesses, no matter what your personality is like, or your life experiences, or what you have endured or suffered, or how you feel vulnerable, you *can* make great strides in your personal functioning. This study of stress management will teach you what you need to know to function more effectively in every aspect of your life.

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About the Author

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Understanding the Nature of Stress

- 1 The Meaning of Stress
- 2 The Body's Reactions to Stress
- 3 Sources of Stress across the Lifespan
- 4 Adaptive and Maladaptive Behavior
- 5 Individual and Cultural Differences





The Meaning of Stress

It is Monday morning and the sun is just beginning to peek over the horizon, casting a dim shadow through the slats of the window blinds. In the mostly darkened room you can see the barest outline of a body sitting at a desk with his head cradled in his arms, resting near a laptop. The surface of the desk is littered with papers, cups half-filled with coffee, crushed cans of caffeinated energy drinks, and the remnants of pizza crust. If you look closer you can see that the person, although half-dead to the world, is not quite sleeping: his eyes are barely open, red, and blurry. It has been a long night without sleep and Blaine has been prepping for an exam scheduled that morning, as well as a paper due in the afternoon.

Somehow, somehow, Blaine has *got* to regain some energy to get through the day, stay awake through his classes, and then show up for his part-time job. It's been especially tough lately with money so tight and getting worse. He can't afford to miss a day of work or he'll risk lowering his main source of income. With problems of their own, his parents are in no position to help him much.

To make matters even more challenging, Blaine and his girlfriend have been fighting lately. She complains that they never seem to have much time to be together anymore—and when they do hang out, he is so tired that all he wants to do is watch TV or play computer games. In addition, he just hasn't been feeling well lately. Headaches have been occurring with greater frequency. He isn't sleeping well—when he finds the time to sleep at all. His grades are slipping because he can't find the time to study as much as he'd like. About the only thing that gives Blaine some relief is drinking beer with friends, but then he has trouble waking up the next morning to make his early class. He wonders how he will ever dig himself out of this hole.

Although this scenario is not exactly uncommon among college students, I hope that it isn't too familiar to you. Unlike some people you may know whom stress has buried beyond recovery, Blaine actually made significant progress in regaining control of his life. A friend had recommended that he take a stress management class so they could coordinate their schedules. As it happened, Blaine agreed, mostly because it was offered at a convenient time and seemed like an easy grade. But once he began learning about the cumulative effects of stress on his body and well-being, Blaine began experimenting with some of the methods introduced in class and his text. More than anything else, it was the social support he felt from others in the class that encouraged him to incorporate the new stress reduction strategies into his life.

Regardless of your particular age, gender, socioeconomic background, major, family situation, and the college you are attending, managing stress effectively is perhaps the single most important skill to get the most from your experience and perform at the highest level. Among “nontraditional” adult students, who represent one-third of college enrollment, there are added challenges to balance school with jobs, family, and

personal responsibilities (Giancola, Grawitch, & Borchert, 2009). According to a number of surveys of college students conducted by the Associated Press (2009), the American College Health Association (2009), and the *Chronicle of Higher Education* (2008), 85% report that stress is a major problem and the single greatest obstacle to success. Apart from actual performance in classes and grades achieved, excessive stress affects almost every aspect of life satisfaction. In recent times, economic problems have led to cutbacks in classes, staff, faculty, and services on campus. Scholarships have been reduced during a time when three-quarters of all students graduate with debt (Berg-Gross & Green, 2010).

Stress means different things to different people. To some, it represents a complete breakdown in their lives; to others, it means a minor annoyance that is best ignored, or tolerated; and in some circumstances, stress means an opportunity to rise to new levels of performance in a variety of areas. Some people tolerate stress reasonably well, some fall apart, and others hardly seem to notice the pressure in the first place.

KEY QUESTIONS IN THE CHAPTER

- What are the different ways that stress can be defined and conceptualized?
- What are the different ways that people respond to adversity in their lives?
- How can you assess the signs and symptoms of stress as they occur in yourself and others?
- Stress is ordinarily thought of as a fairly negative state, something to be avoided whenever possible. But how can stress be highly functional and operate as a survival mechanism?
- What is the general adaptation syndrome (GAS) and how does it function during times of stress?
- What is the primary goal of stress management? Can such a program completely eliminate stress?
- What are major sources of stress and how are they recognized?
- How do you interpret the following statement: “Stress is not what exists on the outside, but how you perceive a situation on the inside”?
- How does the dynamical systems theory interpret stress and stress coping? What are the six key concepts of the dynamical systems theory?

What Is Stress Anyway?

This may seem like a rather obvious question. *Everyone* knows what stress is or, at the very least, knows when they are experiencing it firsthand or witnessing its effects on someone close to them.

Stress is that feeling when you can't seem to sit still, when your thoughts are racing and you feel out of control. Your body feels tense, as if tied into a knot. You feel revved up but can't figure out where to direct your energy. Time pressures weigh down on you. Concentration seems difficult.

Intense pressure: you feel it in your neck, in your back, in your belly. You notice your jaw muscles are clenched. There is, perhaps, a throbbing in your head. Your heart rate has increased, and your hands feel clammy.

This is stress, or at least some of the symptoms. As you will learn, there are many others that you will learn to recognize, and understand how they develop. There are also different kinds of stress, some of which break down your body and mind while others actually help you perform at peak levels.

One definition of **stress** is that it represents both a psychological and a physiological reaction to a real or perceived threat that requires some action or resolution. It is a response that operates on cognitive, behavioral, and biological levels that, when sustained and chronic, results in significant negative health effects (Linden, 2005). Stress is, therefore, what happens when life exerts pressure on us, but also the way it makes us feel. According to landmark brain researcher Bruce McEwen (McEwen, 2002; McEwen & Wingfield, 2010), it is both a stimulus *and* a response.

A more humorous (and perhaps accurate) description of stress is offered by Elkin (1999, p. 24) as the condition created when “your mind overrides the body’s basic desire to choke the living daylight out of some idiot who desperately deserves it.” (Note: There is a high likelihood that your friends and family are going to ask what you are learning in “that stress class you are taking.” Please offer them the first definition rather than the second one.)

Stress is actually a survival mechanism, programmed a long time ago, to increase internal awareness of danger and transform all the body’s resources to a heightened state of readiness. It is, essentially, the experience of *perceived* attack. It doesn’t matter whether the threat is real or not; the **autonomic nervous system** (think “automatic”) is activated. This system works well only when it turns itself on and off within a reasonable period of time so as to not wear out its welcome (and deplete your energy). Unfortunately, half of all Americans report significant stress in their lives. Even more disturbingly, according to a recent survey, most people don’t intend to do anything about it (Schuler, 2006).

There is a fairly good possibility that you are experiencing some degree of stress in your life right now, perhaps this very minute. How do you know when you are stressed? Stress responses have some common symptoms and signs, but they are also highly individualized, impacting your body, your internal thoughts, your emotional reactions, and your behavior (see Table 1.2 later in the chapter).

Stress symptoms are the body’s way of getting your attention to tell you: *Look, you’ve got to get your act together. I’m a little tired of you running me ragged. I’m going to annoy you until you do something about this situation. And if you don’t pay attention to me, well then, I’ll just have to figure out more ways to get to you.*

If your body could talk to you, it might communicate this message. The problem is that stress symptoms are not always obvious and direct; sometimes they can become disguised or rather subtle and their messages somewhat clouded.

Meanings of Stress

Trey thought he had things under control. He was well organized and intentional in almost everything he did. He had a plan for his life and clear ideas about just how he wanted to reach his goals.

In addition to his college courses, Trey had a good job and was well respected at work. There were opportunities for advancement within the company and almost no limit to how far he could rise, especially after he completed his degree. He was involved in a long-term relationship with Mia, whom he had been seeing since they were both 16.

Trey was doing well in school, enjoyed a good social life with friends, and was getting along well with his family. He was in good health, exercised regularly, and—except for a fondness for Hawaiian pizza with extra ham—monitored his diet.

So it was all the more surprising, given how well everything seemed to be going in his life, that he suddenly (or maybe it was gradually—he couldn’t remember) started to lose control. First the headaches started, and this was highly unusual for him; he was almost never sick. He tried to ignore them and, when that didn’t work, starting consuming up to a dozen aspirin a day to reduce the throbbing.

Eventually, Trey decided to visit his doctor, but after a thorough physical exam, no physiological cause was found. His blood pressure was a little high, as was his cholesterol, but otherwise he was in reasonably good shape.

“They seem to be stress headaches,” the doctor suggested to him. “Are you under a lot of pressure lately?”

Trey shrugged. “Not really,” he replied. “Everything is going pretty well in my life. I’ve got everything under control.” These were the mantras of his life, his trademark responses every time anyone asked him how things were going. Indeed, Trey was much admired by friends and family alike for his calm, controlled demeanor and ability to keep things under control.

Here is the key question: what is the particular *meaning* of Trey’s stress symptoms? Later, when he was asked this question by a friend who had taken a stress management class, all Trey could do was shake his head in frustration.

It turned out that Trey’s strengths were also his weaknesses. He was absolutely relentless in his desire to maintain control and keep everything on course to follow his plan. He would be graduating in two years (19 months to be exact). He and his girlfriend would then get married and have four children, two of each gender. By then he would be a regional manager for the company. They’d own a home in a particular neighborhood that appealed to him. He even knew what kind of car he wanted once he had achieved his success.

So, what’s the problem? And why would a stress response like headaches emerge just when things seemed to be so under control? What was the meaning of stress in Trey’s life? How were these symptoms trying to get his attention to look at something he was ignoring? (See For Reflection 1.1.)

Avoiding the situation did not work for Trey, nor did medicating himself first with aspirin and later with increasing quantities of beer. The headaches worsened. Then other symptoms developed, including a skin rash.

It took some time before Trey confronted what was going on in his life. He realized eventually that he so over-structured and controlled his life that he didn’t ever have to think about where he was headed and whether, in fact, he actually wanted to reach the goals that he had declared. As it turned out, he was very fond of his girlfriend but he didn’t love her, and he certainly didn’t want to spend the rest of his life with her. But for years he hadn’t wanted to hurt her feelings. He wanted to do the right thing, so that meant continuing to live a lie.

And this great job he had, and bright future with the company? He never really wanted to be in business. That was the influence of his father, who was so proud of him. Now that he realized it, Trey had no idea what he wanted to do with his life because it had never seemed like he had a choice.

Now that the headaches had forced him to stop doing what he was doing, Trey had the opportunity to actually consider where he was headed and whether he really wanted to go there. Once he discovered the particular meaning of stress in his life, the headaches went away (although the skin rash stuck around for almost a year afterwards, a residual reminder to follow through on his new commitments). Finding meaning in stress is thus not just an academic exercise but often is absolutely necessary to put life challenges in perspective and allow you to restore feelings of well-being after experiencing disappointment or trauma (Fontana & Rosenheck, 2005).

What’s in a Name?

Stress is the name given to the pressure that cracks bridges or the force that places strain on an object or body. It is synonymous with tension, fatigue, failure, trauma, or difficulty. The word is derived from the Middle English *stresse*, meaning “hardship,” and the Old French *estrece*, meaning “oppression.” More often than not, the subject of stress is thought of in the most negative terms possible—it is something to be managed, or at least tolerated, but rarely understood.

The term has cropped up in medicine since the seventeenth century, recognized by physicians as the cause of physical illnesses that might result from social pressure. It came into common usage during the 1950s when a Canadian biologist, Hans Selye, first published a book that adapted the concept of strain on physical structures from engineering to describe what happens to the human body during times of crisis. In retrospect, Selye didn’t much like the term after it became popular—much preferring “strain”—but by then it was too late (you can’t exactly issue a word recall).

FOR REFLECTION 1.1

What ideas might you have as to what stress could mean in Trey's life? What might he be ignoring that needs attention? What are the principal repeating themes in this narrative?

Given that control and (over)planning are such an ingrained part of Trey's life, is it any wonder that this might suppress other desires and dreams that he does not allow himself to think about?

There are several important questions that are useful in identifying the meaning of disguised or subtle stress. Consider each of them in response to Trey's situation.

1. What does Trey need to look at that he might be ignoring?
2. How are the stress symptoms capturing Trey's attention?
3. What might the symptoms be communicating to him?
4. What would it be like if he tried doing something else, or followed another path?

Think of a situation in your own life in which you feel perplexed by chronic symptoms of distress that won't go away no matter what you do. Ask yourself some of the same questions that you applied to Trey's case: what particular meaning does the problem have in the larger context of your life? In other words, what function might it be serving to get you to examine something important that you might be ignoring?

The seventeenth century of Rousseau, Descartes, and Locke was called the “Age of Reason”; poet and essayist W. H. Auden announced in his Pulitzer Prize-winning verse of the same name that the twentieth century was the “Age of Anxiety.” This catchphrase soon became popular, resulting in dozens of books about how to find the balanced life during a time with so much daily pressure. In 1983, the cover of *Time* magazine proclaimed that we now live in an “Age of Stress.” Our lives are “consumed by demands for our resources and threats to our well-being” (Hobfoll, 1998).

Judging by the hundreds of books and thousands of articles published each year on the subject, stress has become the obsession of our time. Doctors warn about the epidemic of health problems that result from excessive stress. Employers worry about the effects on absenteeism and work productivity. Relationship experts cite stress as a main factor in divorce and other interpersonal conflicts.

The problem of stress has become so pervasive that people flock to courses on stress management, meditation, and yoga. Individuals hire personal trainers and join health clubs, while businesses hire consultants to reduce stress in the workplace. Stress has become the universal challenge of our time, the condition that can suck the fun out of life and kill us just as surely as any plague we faced in ancient times.

How Is Stress a Problem?

It has been estimated that 75% to 90% of all visits to a primary care physician are because of stress-related disorders (Rosch, 1991). These include stomach ailments, tension headaches, high blood pressure, addictions, and almost any other disease you can think of. Stress is linked to the six leading causes of death in North America (see For Reflection 1.2). The American Institute of Stress (2015) estimates that job stress costs US industry over \$300 billion annually. The main sources of work-related stress include accidents, absenteeism, employee turnover, diminished productivity, and direct medical, legal, and insurance costs.

FOR REFLECTION 1.2

What *are* the six leading causes of death in North America? See if you can name them:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Answers are at the end of the chapter.

Nine out of ten adults report that they have experienced serious stress at some time in their lives; almost half of these people say that their symptoms were serious enough to disrupt their lives. Some people experience stress to the point where they cannot function well on a daily basis, cannot enjoy a decent night’s sleep, and feel ravaged by the effects in such a way that their relationships are impaired and their productivity compromised.

Consider yourself fortunate if you are managing to cope reasonably well with the stresses you face in your life. Rest assured that there will come a time in the near future

when you will be tested in ways you never imagined. Preparation is the key to preventing serious problems; hence, the purpose of this text is to equip you with those skills you will find so helpful during times of crisis.

Stress as a Stimulus or Response

In both the physical and psychological worlds, stress implies a judgment that something is damaged as a result of extreme pressure. For our purposes, in talking about stress in relation to human functioning, it is most often thought of as either a **stimulus** or a **response**. In the first case, stress is the description we give for someone or something that is putting pressure on us to do something that feels beyond comfortable limits. It is an external pressure (“Could you help me write this paper?”), event (earthquake), or incident (car accident) that produces a response.

In the second case, with stress as a response, it represents the *result* of internal or external pressure. Regardless of what happened in the outside world, the internal mechanisms of the body and mind activate stressful reactions.

In both instances, you can see a clear linkage between something that happens in the world and how the person responds afterwards. **Stressors** are those stimuli in the environment or daily life that result in *perceived* pressure. Perception is a key factor in this definition because people respond in such different ways to exactly the same stimuli. For instance, imagine the following: Your instructor announces that she has changed the requirements of the course and now expects you and all your classmates to come up in front of the room and tell a story about the time you each felt most stressed in your life. We’re willing to bet that some people might respond to this invitation with abject terror (“Oh my gosh! I can’t do that!”). And yet, there are a few others who would rub their hands together with glee, thinking to themselves: “What fun! That sounds *so* interesting.”

There are some stressors that would likely produce anxiety in almost anyone (death of a loved one, catastrophic illness, divorce in the family, loss of a job, failing a class) and others that depend on a number of factors including a person’s prior experiences and history, personality style, resources available, and resilience. Regardless of these variables, research consistently finds that certain life events act as stressors to produce extreme emotional reactions that include anxiety, depression, and other negative emotions.

TABLE 1.1 Stress as a stimulus or a response

Stimulus	Response
• <i>She’s stressing me out with her demands.</i>	• <i>I am so stressed after the exam.</i>
• <i>The deadline is putting stress on me.</i>	• <i>I feel the stress in my shoulders and my neck.</i>
• <i>This class is so stressful the way the instructor organizes things.</i>	• <i>When you said that, you made me so upset afterwards.</i>

A Selected History of Stress Research

It is only relatively recently in human history that stress has become a major issue of discussion—in the previous centuries people usually died before the ravages of stress-related illnesses could take a toll. Yet stress has been with us since the first humans dealt with the life-threatening challenges of hunting—and avoiding being the hunted.

Ancient Contributions

Our ancestors developed coping mechanisms to handle the stressors specific to their times. In a Chinese medical classic, *Yellow Emperor’s Classic on Internal Medicine*,