

How You React to Stress

Stress is an everyday fact of life. You can't avoid it. *Stress* results from any change you must adapt to, ranging from the negative extreme of actual physical danger to the exhilaration of falling in love or achieving some long-desired success. In between, day-to-day living confronts even the most well-managed life with a continuous stream of potentially stressful experiences. Not all stress is bad. In fact, stress is not only desirable it is also essential to life. Whether the stress you experience is the result of major life changes or the cumulative effect of minor everyday hassles, it is how you respond to these events that determines the impact that stress will have on your life.

SOURCES OF STRESS

You experience stress from four basic sources:

1. Your environment bombards you with demands to adjust. You must endure weather, pollens, noise, traffic, and air pollution.
2. You also must cope with social stressors such as demands for your time and attention, job interviews, deadlines and competing priorities, work presentations, interpersonal conflicts, financial problems, and the loss of loved ones.
3. A third source of stress is physiological. The rapid growth of adolescence; the changes menopause causes in women; lack of exercise, poor nutrition, and inadequate sleep; illness, injuries, and aging all tax the body. Your physiological reaction to environmental and social threats and changes also can result in stressful symptoms such as muscle tension, headaches, stomach upset, anxiety, and depression.
4. The fourth source of stress is your thoughts. Your brain interprets complex changes in your environment and body and determines when to turn on the "stress response." How you interpret and label your present experience and what you predict for your future can serve either to relax or to stress you. For example, interpreting a sour look from your boss to mean that you are doing an inadequate job is likely to be very anxiety-provoking. Interpreting the same look as tiredness or preoccupation with personal problems will not be as frightening.

Stress researchers Lazarus and Folkman (1984) have argued that stress begins with your appraisal of a situation. You first ask how dangerous or difficult the situation is and what resources you have to help you cope with it. Anxious, stressed people often decide that (1) an event is dangerous, difficult, or painful and (2) they don't have the resources to cope.

FIGHT-OR-FLIGHT RESPONSE

Walter B. Cannon, a physiologist, laid the groundwork for the modern meaning of "stress" at Harvard in the beginning of the twentieth century. He was the first to describe the "fight-or-flight response" as a series of biochemical changes that prepare you to deal with threat or danger. Primitive people needed quick bursts of energy to fight or flee predators like saber-toothed tigers. You can thank this response for enabling your ancestors to survive long enough to pass on their genetic heritage to you. Think of occasions in your life when the fight-or-flight response served you well, such as when you had to respond quickly to a car that cut in front of you on the freeway or when you had to deal with an overly aggressive panhandler. These days, however, when social custom prevents you from either fighting or running away, this "emergency" or "stress response" is rarely useful.

Hans Selye (1978), the first major researcher on stress, was able to trace what happens in the body during the fight-or-flight response. He found that any problem, imagined or real, can cause the cerebral cortex (the thinking part of the brain) to send an alarm to the hypothalamus (the main switch for the stress response, located in the midbrain). The hypothalamus then stimulates the sympathetic nervous system to make a series of changes in the body. These changes include the following: The heart rate, breathing rate, muscle tension, metabolism, and blood pressure all increase. The hands and feet become cold as blood is directed away from the extremities and digestive system into the larger muscles that can help to fight or run. Some people experience butterflies in their stomachs. The diaphragm and anus lock. The pupils dilate to sharpen vision and hearing becomes more acute.

Regrettably, during times of chronic stress when the fight-or-flight physiological responses continue unchecked, something else happens that can have long-term negative effects. The adrenal glands secrete *corticoids* (adrenaline or epinephrine, and norepinephrine), which inhibit digestion, reproduction, growth, tissue repair, and the responses of the immune and inflammatory systems. In other words, some very important functions that keep the body healthy begin to shut down.

Fortunately, the same mechanism that turns the stress response on can turn it off. This is called the *relaxation response*. As soon as you decide that a situation is no longer dangerous, your brain stops sending emergency signals to your brain stem, which in turn ceases to send panic messages to your nervous system. Three minutes after you shut off the danger signals, the

fight-or-flight response burns out. Your metabolism, heart rate, breathing rate, muscle tension, and blood pressure all return to their normal levels. Herbert Benson (2000) suggests that you can use your mind to change your physiology for the better, improving your health and perhaps reducing your need for medication in the process. He coined the term "the relaxation response" to refer to this natural restorative response.

CHRONIC STRESS AND DISEASE

Chronic or persistent stress can occur when life stressors are unrelenting, as they are, for example, during a major reorganization or downsizing at work, while undergoing a messy divorce, or coping with chronic pain or disease or a life-threatening illness. Chronic stress also takes place when small stressors accumulate and you are unable to recuperate from any one of them. As long as the mind perceives a threat, the body remains aroused. If your stress response remains turned on, your chances of getting a stress-related disease may be increasing.

Researchers have been looking at the relationship between stress and disease for over a hundred years. They have observed that people suffering from stress-related disorders tend to show hyperactivity in a particular "preferred system," or "stress-prone system," such as the skeletal-muscular, cardiovascular, or gastrointestinal system. For example, chronic stress can result in muscle tension and fatigue for some people. For others, it can contribute to stress hypertension (high blood pressure), migraine headaches, ulcers, or chronic diarrhea.

Almost every system in the body can be damaged by stress. When an increase in corticoids suppresses the reproduction system, this can cause amenorrhea (cessation of menstruation) and failure to ovulate in women, impotency in men, and loss of libido in both. Stress-triggered changes in the lungs increase the symptoms of asthma, bronchitis, and other respiratory conditions. Loss of insulin during the stress response may be a factor in the onset of adult diabetes. Stress suspends tissue repair and remodeling, which, in turn, causes decalcification of the bones, osteoporosis, and susceptibility to fractures. The inhibition of immune and inflammatory systems makes you more susceptible to colds and flu and can exacerbate some specific diseases such as cancer and AIDS. In addition, a prolonged stress response can worsen conditions such as arthritis, chronic pain, and diabetes. There are also some indications that the continued release and depletion of norepinephrine during a state of chronic stress can contribute to depression and anxiety.

The relationship between chronic stress, disease, and aging is another area of research. Experts in aging are looking at the changing patterns of disease and the emergence of degenerative disorders. Over just a few generations, the threat of infectious diseases such as typhoid, pneumonia, and polio has been replaced with such "modern plagues" as cardiovascular disease, cancer, arthritis, respiratory disorders like asthma and emphysema, and a pervasive incidence of

depression. As you age normally, you expect a natural slowing down of your body's functioning. But many of these mid- to late-life disorders are stress-sensitive diseases. Currently, researchers and clinicians are asking how stress accelerates the aging process and what can be done to counteract this process.

SCHEDULE OF RECENT EXPERIENCE

Thomas Holmes, MD, and his research associates at the University of Washington found that people are more likely to develop illnesses or clinical symptoms after experiencing a period of time when they've had to adapt to many life-changing events (1981).

Dr. Holmes and his associates developed the Schedule of Recent Experience, which allows you to quantify how many changes you've experienced in the past year and consider how these stressful events may have increased your vulnerability to illness. The main purpose of this scale, however, is to increase your awareness of stressful events and their potential impact on your health so that you can take the necessary steps to reduce the level of stress in your life.

Instructions: Think about each possible life event listed below and decide how many times, if at all, each has happened to you within the last year. Write that number in the Number of Times column. (Note that if an event happened more than four times, you would still give it a 4 in that column.)

<i>Event</i>	<i>Number of Times</i>	<i>x</i>	<i>Mean Value</i>	<i>=</i>	<i>Your Score</i>
1. A lot more or a lot less trouble with the boss.		x	23	=	
2. A major change in sleeping habits (sleeping a lot more or a lot less or a change in time of day when you sleep).		x	16	=	
3. A major change in eating habits (eating a lot more or a lot less or very different meal hours or surroundings).		x	15	=	
4. A revision of personal habits (dress, manners, associations, and so on).		x	24	=	
5. A major change in your usual type or amount of recreation.		x	19	=	
6. A major change in your social activities (e.g., clubs, dancing, movies, visiting, and so on).		x	18	=	
7. A major change in church activities (attending a lot more or a lot less than usual).		x	19	=	

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8. A major change in the number of family get-togethers (a lot more or a lot fewer than usual).	x	15	=	
9. A major change in your financial state (a lot worse off or a lot better off).	x	38	=	
10. Trouble with in-laws.	x	29	=	
11. A major change in the number of arguments with spouse (a lot more or a lot fewer than usual regarding child rearing, personal habits, and so on).	x	35	=	
12. Sexual difficulties.	x	39	=	
13. Major personal injury or illness.	x	53	=	
14. Death of a close family member (other than spouse).	x	63	=	
15. Death of spouse.	x	100	=	
16. Death of a close friend.	x	37	=	
17. Gaining a new family member (through birth, adoption, oldster moving in, and so on).	x	39	=	
18. Major change in the health or behavior of a family.	x	44	=	
19. Change in residence.	x	20	=	
20. Detention in jail or other institution.	x	63	=	
21. Minor violations of the law (traffic tickets, jaywalking, disturbing the peace, and so on).	x	11	=	
22. Major business readjustment (merger, reorganization, bankruptcy, and so on).	x	39	=	
23. Marriage.	x	50	=	
24. Divorce.	x	73	=	
25. Marital separation from spouse.	x	65	=	
26. Outstanding personal achievement.	x	28	=	
27. Son or daughter leaving home (marriage, attending college, and so on).	x	29	=	
28. Retirement from work.	x	45	=	
29. Major change in working hours or conditions.	x	20	=	
30. Major change in responsibilities at work (promotion, demotion, lateral transfer).	x	29	=	

31. Being fired from work.		x	47	=	
32. Major change in living conditions (building a new home or remodeling, deterioration of home or neighborhood).		x	25	=	
33. Spouse beginning or ceasing to work outside the home.		x	26	=	
34. Taking out a mortgage or loan for a major purchase (purchasing a home or business and so on).		x	31	=	
35. Taking out a loan for a lesser purchase (a car, TV, freezer, and so on).		x	17	=	
36. Foreclosure on a mortgage or loan.		x	30	=	
37. Vacation.		x	13	=	
38. Changing to a new school.		x	20	=	
39. Changing to a different line of work.		x	36	=	
40. Beginning or ceasing formal schooling.		x	26	=	
41. Marital reconciliation with mate.		x	45	=	
42. Pregnancy.		x	40	=	
Your total score					

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Scoring:

- Multiply the mean value by the number of times an event happened, and enter the result in the Your Score column.
- Add up your scores to get your total score and enter it at the bottom of the schedule. (Remember, if an event happened more than four times within the past year, give it a 4 in the Number of Times column. A 4 is the highest number that can be used in the Number of Times column.)

According to Dr. Holmes and his associates, the higher your total score, the greater your risk of developing stress-related symptoms or illnesses. Of those with a score of over 300 for the past year, almost 80 percent will get sick in the near future; of those with a score of 200 to 299, about 50 percent will get sick in the near future; and of those with a score of 150 to 199, only about 30 percent will get sick in the near future. A score of less than 150 indicates that you have a low chance of becoming ill. So, the higher your score, the harder you should work to stay well.

Because individuals vary in their perception of a given life event as well as in their ability to adapt to change, we recommend that you use this standardized test only as a rough predictor of your increased risk.

Stress can be cumulative. Events from two years ago may still be affecting you now. If you think that past events may be a factor for you, repeat this test for the events of the preceding year and compare your scores.

PREVENTION

Here are some ways you can use the Schedule of Recent Experience to maintain your health and prevent illness. You can use it to:

1. Remind yourself of the amount of change that has happened to you by posting the Schedule of Recent Experience where you and your family can see it easily.
2. Think about the personal meaning of each change that's taken place for you and try to identify some of the feelings you experienced.
3. Think about ways that you can best adjust to each change.
4. Take your time when making decisions.
5. Try to anticipate life changes and plan for them well.
6. Pace yourself. Don't rush. It will get done.
7. Take time to appreciate your successes, and relax.
8. Be compassionate and patient with yourself. It is not uncommon for people to become overwhelmed by all the stresses in their lives. It takes a while to put into effect coping strategies to deal with stress.
9. Acknowledge what you can control and what you cannot control and, when possible, choose which changes you take on.
10. Try out the stress-management and relaxation techniques presented in this book and incorporate the ones that work best for you into your personalized stress-management program.

SYMPTOMS CHECKLIST

The major objective of this workbook is to help you achieve symptom relief using relaxation and stress reduction techniques. So that you can determine exactly which symptoms you want to work on, complete the following checklist.

After you've used this workbook to master the stress reduction techniques that work best for your symptoms, you can return to this checklist and use it to measure your symptom relief.

Instructions: Rate your stress-related symptoms below for the degree of discomfort that they cause you, using this 10-point scale:

Slight discomfort			Moderate discomfort				Extreme discomfort		
1	2	3	4	5	6	7	8	9	10
Symptom <i>(Disregard those that you don't experience)</i>			Degree of discomfort <i>(1-10) now</i>				Degree of discomfort (1-10) <i>after mastering relaxation and stress reduction techniques</i>		
Anxiety in specific situations									
Tests			_____				_____		
Deadlines			_____				_____		
Competing priorities			_____				_____		
Interviews			_____				_____		
Public Speaking			_____				_____		
Other			_____				_____		
Anxiety in personal relationships									
Spouse			_____				_____		
Parents			_____				_____		
Children			_____				_____		
Other			_____				_____		
Worry									
Depression									
Anxiety									
Anger									
Irritability									
Resentment									
Phobias									

Fears		
Muscular tension		
High blood pressure		
Headaches		
Neck pain		
Backaches		
Indigestion		
Muscle spasms		
Insomnia		
Sleeping difficulties		
Work stress		
Other		

Important: Physical symptoms may have purely physiological causes. You should have a medical doctor eliminate the possibility of any such physical problems before you proceed on the assumption that your symptoms are completely stress-related.

TACTICS FOR COPING WITH STRESS

As a member of modern society, you have available to you a variety of methods to cope with the negative effects of stress. Doctors can treat your stress-related symptoms and diseases. Over-the-counter remedies can reduce your pain, help you sleep, keep you awake, enable you to relax, and counter your acid indigestion and nervous bowels. You can consume food, alcohol, and recreational drugs to help block feelings of discomfort. You may have diversions such as TV, movies, the Internet, hobbies, and sports. You can withdraw from the world into your home and avoid all but the most necessary contact with the stressful world around you.

Our culture rewards people who deal with their stress by working harder and faster to produce more in a shorter time. There are people who thrive in our rapid-paced culture who are referred to as "type A" personalities. The type A personality is a term that was coined in the 1970s to describe people who have a strong sense of time urgency, can't relax, are insecure about their status, are highly competitive, and are easily angered when they don't get their own way. The classic study of type A personality was the twelve-year-longitudinal study of over 3,500

healthy middle-aged men reported by Friedman and Rosenman in 1974 and estimated that type A behavior doubled the risk of coronary heart disease. Although this popular concept has received a great deal of interest in health psychology, recent research (Williams 2001) has indicated that only the hostility component of type A personality is a significant health-risk factor.

In 2006 an article presented in the *American Journal of Cardiology* (Denollet, et al.) discussed how certain personal traits can hurt heart health and proposed a new personality construct, referred to as type D or "distressed" personality. Type D behavior is characterized by the tendency to experience negative emotions (anger and hostility) and to inhibit these emotions while avoiding social contact with others. Both negativity and social withdrawal are associated with greater cortisol (a hormone that is closely related to cortisone in its physiological effects), increased reactivity to stress and risk for coronary heart disease and other stress-related diseases. However, it is anyone's guess whether the type D label will have the staying power that the type A label has had.

In contrast to anxious, chronically stressed people, certain individuals are less vulnerable to stress, according to University of Chicago research psychologist Suzanne Kobasa, and colleagues (1985). These "stress-hardy" individuals have a lower frequency of illness and work absenteeism. They view stressors as challenges and chances for new opportunities and personal growth rather than as threats. They feel in control of their life circumstances, and they perceive that they have the resources to make choices and influence events around them. They also have a sense of commitment to their homes, families, and work that makes it easier for them to be involved with other people and in other activities. According to Herbert Benson and Eileen Stuart, authors of *The Wellness Book* (1993), the incidence of illness is lowest in individuals who have these stress-hardy characteristics and who also have a good social support system, exercise regularly, and maintain a healthy diet.

In his popular book *Emotional Intelligence* (1995), Daniel Goleman refers to emotionally healthy people as individuals who consistently demonstrate self-awareness, self-discipline, and empathy. Goleman asserts through his book that "emotional intelligence" contributes to a person's ability to cope with stress.

In her book *The Tending Instinct* (2002), psychologist Shelley E. Taylor discusses how we are biologically programmed to care for one another. In her research, Taylor discovered that studies involving the "fight-or-flight response" involved only male subjects. She set out to see whether men and women deal with stress differently, and if so, how. She found that in times of stress, people (especially women) who are driven to turn to their social support group to give and receive support—instead of running or fighting—are much less likely to experience a prolonged stress response. Her theory is known as "tend and befriend." Taylor says, "Social ties are the cheapest medicine we have" (p. 165).

TACTICS FOR COPING WITH STRESS INVENTORY

Before you embark on a program of change, it is important to consider how you currently manage your stress.

Instructions: Listed below are some common ways of coping with stressful events. Mark those that are characteristic of your behavior or that you use frequently.

1. I ignore my own needs and just work harder and faster.
2. I seek out friends for conversation and support.
3. I eat more than usual.
4. I engage in some type of physical exercise.
5. I get irritable and take it out on those around me.
6. I take a little time to relax, breathe, and unwind.
7. I smoke a cigarette or drink a caffeinated beverage.
8. I confront my source of stress and work to change it.
9. I withdraw emotionally and just go through the motions of my day.
10. I change my outlook on the problem and put it in a better perspective.
11. I sleep more than I really need to.
12. I take some time off and get away from my working life.
13. I go out shopping and buy something to make myself feel good.
14. I joke with my friends and use humor to take the edge off.
15. I drink more alcohol than usual.
16. I get involved in a hobby or interest that helps me unwind and enjoy myself.
17. I take medicine to help me relax or sleep better.
18. I maintain a healthy diet.
19. I just ignore the problem and hope it will go away.
20. I pray, meditate, or enhance my spiritual life.

- _____ 21. I worry about the problem and am afraid to do something about it.
- _____ 22. I try to focus on the things I can control and accept the things I can't.

Adapted from the "Coping Styles Questionnaire." © 1999 by Jim Boyers, Ph.D., Kaiser-Permanente Medical Center and Health Styles, Santa Clara, CA.

Evaluate your results: The even-numbered items tend to be more constructive tactics and the odd-numbered items tend to be less constructive tactics for coping with stress. Congratulate yourself for the even-numbered items you checked. Think about whether you need to make some changes in your thinking or behavior if you checked any of the odd-numbered items. Consider experimenting with some even-numbered items you haven't tried before. This workbook will assist you in making these changes.

KNOWING YOUR GOAL

The goal of stress management is not merely stress reduction. After all, wouldn't life be boring without stress? As mentioned earlier, there is a tendency to think of stressful events or stressors only as negative (such as the injury or death of a loved one), but stressors are often positive. For instance, getting a new home or a promotion at work brings with it the stress of change of status and new responsibilities. The physical exertion of a good workout, the excitement of doing something challenging for the first time, or the pleasure of watching a beautiful sunset on the last day of your vacation are all examples of positive stress.

Distress or negative stress occurs when you perceive that the challenge facing you is dangerous, difficult, painful, or unfair, and you are concerned that you may lack the resources to cope with it. You can actually increase your ability to deal with distress by integrating into your everyday life positive activities such as solving challenging problems, practicing regular exercise workouts and relaxation techniques, staying in touch with enjoyable social contacts, following sensible dietary practices, and engaging in optimistic and rational thinking, humor, and play.

Performance and efficiency actually improve with increased stress, until performance peaks as the stress level becomes too great. Stress management involves finding the right types and amounts of stress, given your individual personality, priorities, and life situation, so that you can maximize your performance and satisfaction. By using the tools presented in this workbook, you can learn how to cope more effectively with distress as well as how to add more positive stress or stimulating challenges, pleasure, and excitement to your life.

SYMPTOM-RELIEF EFFECTIVENESS

Now that you've identified the major sources of your stress, your stress-related symptoms, and your current tactics for dealing with stress, it is time to choose one or two symptoms that bother you the most and select the techniques that you will use to relieve them. Defining and achieving a specific goal will give you a sense of accomplishment and motivate you to continue using the tools and ideas that give you the positive change you are seeking. Because everyone reacts differently to stress, we can't tell you which techniques will work best for you. However, the chart on the following pages will give you a general idea of what to try first and where to go from there.

Chapter headings for each stress reduction method are across the top, and typical stress-related symptoms are listed down the side. As you can see, more than one stress reduction technique can be effective for treating most symptoms. The most effective techniques for a particular symptom are marked with a boldface X, while other helpful techniques for the same symptom are indicated by a smaller and lighter x.

The techniques fall into roughly two categories: relaxation techniques that focus on relaxing the body, and stress reduction techniques that condition the mind to handle stress effectively. Your mind, body, and emotions are interrelated. In seeking relief from stress, you will obtain the best results by using at least one technique from each of these two broad categories. For example, if your most painful stress symptom is general anxiety, you might practice progressive relaxation and breathing exercises to calm your body and work on the exercises from chapter 12 on refuting irrational ideas and chapter 13 on facing worry and anxiety to reduce your mental and emotional stress. If your results on the Tactics for Coping with Stress Inventory indicate that you do not engage in regular physical exercise and/or your diet is not good, you will also want to refer to chapters 19 on nutrition and 20 on physical exercise to learn how improving these tactics can reduce your general anxiety.

SYMPTOM-RELIEF EFFECTIVENESS CHART

Techniques

Symptoms	Breathing	Progressive Relaxation	Meditation	Visualization	Applied Relaxation	Self-Hypnosis	Auto-genics
Anxiety in specific situations (tests, deadlines, interviews, presentations)	X	X	x	x	X	x	
Anxiety in your relationships (spouse, children, boss)	X	x				x	
General anxiety and worry	X	X	X	x	X		x
Depression	X		X				
Hostility, anger, irritability, resentment	X	x	x		X		x
Phobias, fears	X	X		x	X		
Muscular tension	X	X		x	x	x	X
High blood pressure	x	X	X				X
Headaches, neck pain, backaches	x	X	X	X	X	X	x
Indigestion	x	X	x			X	X
Insomnia, sleeping difficulties	x	X			X	X	x
Work stress	X	X			X		
Chronic pain	X	x	X	X	x	X	X

Techniques

Symptoms	Brief Combination Techniques	Focusing	Refuting Irrational Ideas	Facing Worry and Anxiety	Coping Skills Training for Fears	Anger Inoculation
Anxiety in specific situations (tests, deadlines, interviews, presentations)	x	X	x	X	X	
Anxiety in your relationships (spouse, children, boss)	x	X	x	X	x	
General anxiety and worry	x	x	X	X	x	
Depression		x	X			
Hostility, anger, irritability, resentment		X	X			X
Phobias, fears		x	x	X	X	
Muscular tension	x					x
High blood pressure	x					x
Headaches, neck pain, backaches		x				
Indigestion	x					
Insomnia, sleeping difficulties		x				
Work stress	X	X	X			x
Chronic pain	x	X	x			