Life is either a daring adventure or nothing at all.

—Helen Keller

The Nature of Stress
The Nature of Stress

If you were to browse through any newspaper or magazine article prior to 1960, you would be hard-pressed to find the word stress in either the text or the headlines. The stress phenomenon, as it is referred to today, is quite new with regard to the history of human-

I cannot and should not be cured of my stress, but merely taught to enjoy it.

—Hans Selye
The Nature of Stress

Not even a household expression three decades ago, use of the word *stress* is now as common as the terms *global warming* and *cell phones*. In fact, however, stress in terms of physical arousal can be traced back to the Stone Age as a “survival mechanism.” But what was once designed as a means of survival is now associated with the development of disease and illness that claims the lives of millions of people worldwide. Research now indicates that between 70 and 80 percent of all disease and illness is stress related, most notably coronary heart disease, cancer, the common cold, migraine headaches, warts, some cases of female infertility, ulcers, insomnia, hypertension—the list goes on and on.

Government figures compiled by the National Center for Health Statistics in 2000 provide a host of indicators suggesting that human stress is indeed a health factor to be reckoned with. Prior to 1955, the leading causes of death were the sudden onset of illness by infectious diseases (e.g., polio, rubella, tuberculosis, typhoid, and encephalitis) that in most cases have since been eradicated or brought under control by vaccines and medications. The post–World War II era ushered in the age of high technology, which considerably altered the lifestyles of nearly all peoples of every industrialized nation. The introduction of consumer products, such as the washer, dryer, microwave oven, television, DVD player, laptop computer, and cell phone, were cited as luxuries to add more leisure time to the work week. But as mass production of high-technology items increased, so too did the competitive drive to increase human effort and productivity, which in turn actually decreased leisure time, and thus created a plethora of unhealthy lifestyles.

Currently, the leading causes of death are dominated by what are referred to as lifestyle diseases, those diseases whose pathology develops over a period of several years, and perhaps even decades (Fig. 1.1). Whereas infectious diseases are treatable by medication, lifestyle diseases are, for the most part, preventable or correctable by altering the habits and behaviors that contribute to their etiology. Previously it was suggested that an association existed between stress and disease. Current research, however, suggests that there may, indeed, be a causal factor involved with several types of diseases, particularly autoimmune diseases. Regardless, it is well understood that the influence of stress weakens the body’s physiological systems, thereby rapidly advancing the disease process.

**Stress:** The experience of a perceived threat (real or imagined) to one’s mental, physical, or spiritual well-being, resulting from a series of physiological responses and adaptations.

*FIG. 1.1* Death rates for the ten leading causes of death per 100,000 population in the United States in 1900 and 2000. (National Center for Health Statistics, Washington, D.C., 2004.)
process. The most notorious lifestyle disease, coronary heart disease (CHD), continues to be the leading cause of death in the United States, far exceeding all other causes. The American Heart Association states that one person dies from heart disease every thirty-four seconds. And while the incidence of CHD has decreased over the past decade, cancer, in all its many types, continues to climb the statistical charts and became the leading cause of death in 2005. Currently cancer claims the lives of one out of every five people. By the year 2008 this rate is projected to be even higher. Alarming increases in suicides, child and spouse abuse, self-mutilation, homicides, alcoholism, and drug addiction are only additional symptoms of a nation under stress. Today, research shows that people still maintain poor coping skills in the face of the personal, social, and even global changes occurring over the course of their lives. When considered within the perspective of the entire health care picture, where well over $400 billion a year is spent on lifestyle and stress-related diseases, the whole health care system is put at risk of collapse. This has led to several national efforts for health care reform.

Originally, the word stress was a term used in physics, primarily to describe enough tension or force placed on an object to bend or break it. Relaxation, on the other hand, was defined as any nonwork activity done during the evenings or on Sunday afternoons when all the stores were closed. On rare occasions, if one could afford it, relaxation meant a vacation or holiday at some faraway place. Conceptually, relaxation was a value, influenced by several religions and represented as a day of rest. The word stress as applied to the human condition was first made popular by noted physiologist Hans Selye in his book The Stress of Life, where he described his research: to understand the physiological responses to chronic stress and its relationship to disease (dis-ease). Today, the word stress is frequently used to describe the level of tension people feel is placed on their minds and souls by the demands of their jobs, relationships, and responsibilities in their personal lives. Oddly, for some, stress seems to be a status symbol tied to self-esteem. Relaxation, meanwhile, has been transformed from an American value into a luxury many people find they just don’t have enough time for. With the current economic expansion, some interesting insights have been observed regarding work and leisure. The average workweek has expanded from forty to sixty hours. The U.S. Department of Labor and Statistics reports that with more service-related jobs being created, more overtime is needed to meet the demands of the customers. Not only do more people spend more time at work, they spend more time driving to and from work (which is not considered work time). Moreover, leisure time at home is often related to work activities, resulting in less time for rest and relaxation. Down time is also compromised. In a recent Harris/Expedia poll (Flinn, 2004), one-third of Americans said they planned to spend part of their vacation working with laptops and cell phones. Moreover, 40 percent of Americans cancelled or postponed vacations due to work, with 415 million unused hours of vacation days being returned to employers. The “dividend” of high technology has proven to be an illusion that has resulted in a stressed lifestyle, which in turn creates a significant health deficit.

### Definitions of Stress

In contemporary times, the word stress has many connotations and definitions based on various perspectives of the human condition. In Eastern philosophies, stress is considered to be an absence of inner peace. In Western culture, stress can be described as a loss of control. Noted healer Serge Kahili King has defined stress as any change experienced by the individual. This definition may be rather general, but it is quite correct. Psychologically speaking, stress as defined by noted researcher Richard Lazarus is a state of anxiety produced when events and responsibilities exceed one’s coping abilities. Physiologically speaking, stress is defined as the rate of wear and tear on the body. Selye added to his definition that stress is the nonspecific response of the body to any demand placed upon it to adapt, whether that demand produces pleasure or pain. Selye observed that whether a situation was perceived as good (e.g., a job promotion) or bad (e.g., the loss of a job), the physiological response or arousal was very similar. The body, according to Selye, doesn’t know the difference between good and bad stress.

However, with new psychoneuroimmunological data available showing that there are indeed some physiological differences between good and bad stress (e.g., the release of different neuropeptides), specialists in the field of holistic medicine have expanded Lazarus’s and Selye’s definitions as follows: Stress is the inability to cope with a perceived (real or imagined) threat to one’s mental, physical, emotional, and spiritual well-being, which results in a series of physiological responses and adaptations. The

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**Holistic medicine:** A healing approach that honors the integration, balance, and harmony of mind, body, spirit, and emotions to promote inner peace. Every technique used in stress management is considered to support the concept of holistic medicine.
important word to emphasize here is perceived (the interpretation), for what might seem to be a threat to one person may not even merit a second thought to another individual. For example, not long ago a raffle was held, with the winning prize being an all-expenses-paid one-week trip for two to a beach resort in Bermuda. Kelly, who won the prize, was ecstatic and already had her bags packed. Her husband, John, was mortified because he hated to fly and he couldn’t swim. In his mind this would not be a fun time. In fact, he really wished they hadn’t won. Each perceived the same situation in two entirely different ways. Moreover, with the wisdom of hindsight, our perceptions often change. Many episodes which at the time seemed catastrophic later appear insignificant, as humorously stated by Mark Twain when he commented, “I’m an old man and I have known a great many troubles, but most of them never happened.” The holistic definition of stress points out that it is a very complex phenomenon affecting the whole person, not just the physical body, and that it involves a host of factors, some of which may not yet even be recognized by scholars and researchers. As more research is completed, it becomes increasingly evident that the responses to stress add up to more than just physical arousal; yet it is ultimately the body that remains the battlefield for the war games of the mind.

The Stress Response

In 1914 Harvard physiologist Walter Cannon first coined the term fight-or-flight response to describe the dynamics involved in the body’s physiological arousal to survive a threat. In a series of animal studies, Cannon noted that the body prepares itself for one of two modes of immediate action: to attack or fight and defend oneself from the pursuing threat, or to run and escape the ensuing danger. What Cannon observed was the body’s reaction to acute stress, what is now commonly called the stress reaction. Additional observations suggested that the fight response was triggered by anger or aggression and was usually employed to defend territorial boundaries or attack aggressors smaller in size. The flight response required physiological preparations that would recruit power and strength for a short duration, or what is now described as short but intense anaerobic work. Conversely, the flight response, he thought, was induced by fear. It was designed to fuel the body to endure prolonged movement such as running away from lions and bears. In many cases, however, it included not only fleeing but also hiding or withdrawal (a variation on the flight response is the freeze response, often noted with post-traumatic stress disorder, where a person simply freezes, like a deer staring into a car’s headlights). The human body, in all its metabolic splendor, actually prepares itself to do both at the same time. In terms of evolution, it appears that this mechanism was so advantageous to survival that it developed in nearly all mammalian species.

In simple terms, there are four stages of the fight-or-flight response:

**Stage 1.** Stimuli from one or more of the five senses are sent to the brain (e.g., a scream, the smell of fire, the taste of poison, a passing truck in your lane).

**Stage 2.** The brain deciphers the stimulus as either a threat or a nonthreat. If the stimulus is not regarded as a threat, this is the end of the response (e.g., the scream came from the television). If, however, the response is decoded as a real threat, the brain then activates the nervous and endocrine systems to quickly prepare for defense and/or escape.

**Stage 3.** The body stays activated, aroused, or “keyed-up” until the threat is over.

**Stage 4.** The body returns to homeostasis, a state of physiological calmness, once the threat is gone.

It is hypothesized that the fight-or-flight response developed primarily against threats of a physical nature, those that jeopardized the survival of the individual. Although clear physical threats still exist in today’s culture, including possible terrorism, they are nowhere near as prevalent as those threats perceived by the mind and, more specifically, the ego. In a theory put forward by a disciple of Selye’s, Simeons (1961), and repeated by Sapolsky (1998), it is suggested that, in effect, the fight-or-flight response is an antiquated mechanism that has not kept evolutionary pace with the development of the human mind. Consequently, the stress response becomes...
Increased heart rate to pump oxygenated blood to working muscles
2. Increased blood pressure to deliver blood to working muscles
3. Increased ventilation to supply working muscles with oxygen for energy metabolism
4. Vasodilation of arteries to the body’s periphery (arms and legs) with the greatest muscle mass
5. Increased serum glucose for metabolic processes during muscle contractions
6. Increased free fatty acid mobilization as an energy source for prolonged activity (e.g., running)
7. Increased blood coagulation and decreased clotting time in the event of bleeding
8. Increased muscular strength
9. Decreased gastric movement and abdominal blood flow to allow blood to go to working muscles
10. Increased perspiration to cool body-core temperature

Unfortunately, the metabolic and physiological changes that are deemed essential for human movement in the event of attack, pursuit, or challenge are quite ineffective when dealing with events or situations that threaten the ego, such as receiving a parking ticket or standing in a long line at the grocery store, yet the body responds identically to all types of perceived threats.

Tend and Befriend

Do women respond differently to stress than men? The answer may seem obvious.

Generally speaking, men are prone to act more hostile while women have a proclivity to be more nurturing. Yet until recently every source on stress addressed the fight-or-flight response as if it were the only human default response. It was the work of Shelly Taylor and colleagues who filled in the missing piece with regard to the female stress response. Curious about why only men were studied to formulate the basis for the fight-or-flight response, Taylor hypothesized that the stress response needed to be reexamined, this time including astute observations of the female gender. In 2000 Taylor and colleagues proposed a new theory for the female stress response that they termed **tend and befriend**. While both men and women have a built-in dynamic for the survival
of physical danger, women also have an inherent nurturing response for their offspring as well as a means to befriend others. This in turn creates a strong social support system, an invaluable coping technique. Taylor suggests that the female response to stress is hardwired into the DNA and revealed through a combination of brain chemistry and hormones. The tend-and-befriend behavior is built on connectedness—a caregiving process, possibly triggered by sex hormones, that may actually override the flood of stress hormones so pronounced in women’s male counterparts. Generational social factors may also support the tend-and-befriend behavior pattern as well.

It is fair to say that the concepts of survival are complex and perhaps not so neatly packaged by hormones or gender. Women are known to back-stab their “friends” and regrettably, on occasion, ditch their newborn babies in dumpsters and run away. Conversely, some men choose peace over violence (Gandhi and Martin Luther King, Jr., come to mind) and, when times get tough, men are known to bond together over a beer or game of golf.

Types of Stress
To the disbelief of some, not all stress is bad for you. In fact, there are many who believe that humans need some degree of stress to stay healthy. The human body craves homeostasis, or physiological calm, yet it also requires physiological arousal to ensure the optimal functioning of several organs, including the heart and musculoskeletal system. How can stress be good? When stress serves as a positive motivation, it is considered beneficial. Beyond this optimal point, stress of any kind does more harm than good.

Actually, there are three kinds of stress: eustress, neustress, and distress. Eustress is good stress and arises in any situation or circumstance that a person finds motivating or inspiring. Falling in love might be an example of eustress; meeting a movie star or professional athlete may also be a type of eustress. Usually, situations that are classified as eustress are enjoyable and for this reason are not considered to be a threat. Neustress describes sensory stimuli that have no consequential effect; it is considered neither good nor bad. News of an earthquake in a remote corner of the world might fall into this category. The third type of stress, distress, is considered bad and often is abbreviated simply as stress. There are two kinds of distress: acute stress, or that which surfaces, is quite intense, and disappears quickly, and chronic stress, or that which may not appear quite so intense, yet seems to linger for prolonged periods of time (e.g., hours, days, weeks, or months). An example of acute stress is the following. You are casually driving down the highway, the wind from the open sunroof is blowing through your hair, and you feel pretty good about life. With a quick glance in your rearview mirror you see flashing blue lights. Yikes! So you slow down and pull over. The police car pulls up behind you. Your heart is racing; your voice becomes scratchy, and your palms are sweating as you try to retrieve license and registration from your wallet while rolling your window down at the same time. When the officer asks you why you were speeding you can barely speak; your voice is three octaves higher than usual. After the officer runs a check on your car and license, he only gives you a warning for speeding. Whew! He gets back in his car and leaves. You give him time to get out of sight, start your engine, and signal to get back onto the highway. Within minutes your heart is calm, your palms dry, and you start singing to the song on the radio. The threat is over. The intensity of the acute stress may seem cataclysmic, but it is very short-lived.

Chronic stressors, on the other hand, are not as intense but their duration is unbearably long. Examples might include the following: being stuck for a whole semester with “the roommate from hell,” a credit card bill that only seems to grow despite monthly payments, a boss who makes your job seem worse than that of a galley slave, living in a city you cannot tolerate, or maintaining a relationship with a girlfriend, boyfriend, husband, or wife that seems bad to stay in but worse to leave. For this reason, chronic stressors are thought to be the real villains, and it is this type of stress that is associated with disease, because the body is perpetually aroused for danger.

**Eustress:** Good stress; any stressor that motivates an individual toward an optimal level of performance or health.

**Neustress:** Any kind of information or sensory stimulus that is perceived as unimportant or inconsequential.

**Distress:** The unfavorable or negative interpretation of an event (real or imagined) to be threatening that promotes continued feelings of fear or anger; more commonly known simply as stress.

**Acute stress:** Stress that is intense in nature but short in duration.

**Chronic stress:** Stress that is not as intense as acute stress but that lingers for a prolonged period of time (e.g., financial problems).
A concept called the Yerkes-Dodson principle, which is applied to athletic performance, lends itself quite nicely to explaining the relationship between eustress, distress, and health. As can be seen in FIG. 1.3, when stress increases, moving from eustress to distress, performance or health decreases and there is greater risk of disease and illness. The optimal stress level is the midpoint, prior to where eustress turns into distress. Studies indicate that stress-related hormones in optimal doses actually improve physical performance and mental-processing skills like concentration, making you more alert. Beyond that optimal level, though, all aspects of performance begin to decrease in efficiency. Physiologically speaking, your health is at serious risk. It would be simple if this optimal level was the same for all people, but it’s not. Hence, the focus of any effective stress-management program is twofold: (1) to find out where this optimal level of stress is for you so that it can be used to your advantage rather than becoming a detriment to your health status, and (2) to reduce physical arousal levels using both coping skills and relaxation techniques so that you can stay out of the danger zone created by too much stress.

**Types of Stressors**

Situations, circumstances, or any stimulus that is perceived to be a threat is referred to as a stressor, or that which causes or promotes stress. As you might imagine, the list of stressors is not only endless but varies considerably from person to person. Acute stress is often the result of rapid-onset stressors—those which pop up unexpectedly—like a phone call in the middle of the night or the discovery that you have lost your car keys. Usually the body begins to react before a full analysis of the situation is made, but a return to a state of calm is also imminent. Chronic stressors—those that may give some advance warning yet manage to cause physical arousal anyway, often merit more attention because their prolonged influence on the body appears to be more significant. Much research has been conducted to determine the nature of stressors, and they are currently divided into three categories: bioecological, psychointrapersonal, and social (Giradano, Everly, and Dusek, 2000).

**Biocological Influences**

There are several biological and ecological factors that may trigger the stress response in varying degrees, some of which are outside our awareness. These are external influences, including sunlight, gravitational pull, solar flares, and electromagnetic fields, that affect our biological rhythms. From the field of chronobiology we learn that these factors affect three categories of biological rhythms: (1) circadian rhythms, fluctuations in physiological functions over the course of a twenty-four-hour period (e.g., body temperature); (2) ultradian rhythms, fluctuations that occur over less than a twenty-four-hour period (such as stomach contractions and cell divisions); and (3) infradian rhythms, changes that occur in periods longer than twenty-four hours (e.g., the menses). These biological changes are influenced by such natural phenomena as the earth’s orbit and axis rotation, which give us periods of light and darkness as well as seasonal differences (FIG. 1.4). A prime example of a biocological influence is seasonal affective disorder (SAD), a condi-
Due to the tilt of the earth’s axis as it moves in its orbit around the sun, areas closest to the poles vary the most in the amount of daily sunlight they receive. Studies show that an inadequate amount of full-spectrum lighting is associated with depression, a phenomenon now known as seasonal affective disorder (SAD) or arctic winter madness.

**FIG. 1.4** Due to the tilt of the earth’s axis as it moves in its orbit around the sun, areas closest to the poles vary the most in the amount of daily sunlight they receive. Studies show that an inadequate amount of full-spectrum lighting is associated with depression, a phenomenon now known as seasonal affective disorder (SAD) or arctic winter madness.

### The Nature of Stress

**Psychointrapersonal Influences**

Our current understanding is that psychointrapersonal influences make up the greatest percentage of stressors. These are the perceptions of stimuli that we create through our own mental processes. Psychointrapersonal stressors involve those thoughts, values, beliefs, attitudes, opinions, and perceptions that we use to defend our identity or ego (see Chapters 4 and 5). When any of these is challenged, violated, or even changed, the ego is often threatened and the stress response is the outcome. Psychointrapersonal stressors reflect the unique constructs of our personality, and in the words of stress researcher Kenneth Pelletier, represent “the chasm between the perceived self and the ideal self-image.” Because these influences are the most likely to cause stress, they are a major focus of this book and great emphasis is placed on helping you manage your stress through learning and practicing effective cognitive coping techniques that aim to resolve stress-related issues. For this reason it becomes imperative to intercept the stress response in the mind before it cascades down as a rush of stress hormones into the body to cause potential damage.

### Social Influences

Social influences have long been the subject of research to explain the plight of individuals who are unable to cope with their given environment. Most notable is the issue of overcrowding and urban sprawl. Studies conducted on several species have shown that when their numbers exceed the territorial boundary of each animal, despite an abundance of food and water, several seemingly healthy animals die off. This need for personal space appears to be universal in the animal kingdom. This includes humans, who likewise begin to show signs of frustration in crowded urban areas, traffic jams, long lines at checkout stands, or whenever their personal space is “invaded.” The origin of this particular social influence may be instinctual in nature. Additional social causes of stress include financial insecurity, the effects of relocation, some technological advances, violation of human rights, and low socioeconomic status, to name but a few.

Social influences related to stress also include major life changes. Two researchers who made significant gains in understanding the relationship between stress and disease through life changes were Thomas Holmes and Richard Rahe. Based on the Life Chart theory of Adolph Meyer, Holmes and Rahe set out to determine what events in people’s lives were most stressful. Surveying thousands of individuals, they created a list of circumstances that represent typical life stressors, or events that require some adaptation or readjustment to a situation. Their list, with a total of forty-three events, included several life events that, on the surface, appear to be positive, such as vacations, weddings, and outstanding personal achievements, as well as traumatic ordeals such as the death of a child. Then they devised a system to weigh...
Life-Change Units: A unit of measurement that corresponds to items on the Social Readjustment Rating Scale.

Social Readjustment Rating Scale: An inventory of life events that may be perceived to be stressful, used to determine one's level of stress.

Richard Lazarus: Renowned stress researcher credited with the concept of daily life hassles.

Daily life hassles: Occasional hassles, like locking your keys in your car, when combined with many other annoyances in the course of a day, create a critical mass of stress.

Each event according to its stress potential. All events were assigned numerical values based on their degree of disruption of one’s life and readjustment following the event. These values were called Life-Change Units or LCUs. The result of their efforts was an inventory called the Social Readjustment Rating Scale (SRRS), which ranked the forty-three life events from most stressful to least stressful (Table 1.1 and Table 1.2). In further research using this assessment tool, Holmes and Rahe gave this inventory to several physicians and then compared their results with major health changes reported by the physicians. There was a significant correlation between life-event scores and personal health histories, with an LCU score of 150 being the point of demarcation between the exposure to major life stressors and health-related problems. With further analysis, they created categories based on LCU scores: 150–199 points suggested a mild life crisis, 200–299 points suggested a moderate life crisis, and any score over 300 points indicated a major life crisis. Based on the work by Holmes and Rahe, this survey and similar ones designed for special populations (e.g., college students) are now used to predict the likelihood of disease and illness following exposure to stressful life events. It is important to note that a high LCU score does not predict illness for all people, and this fact has led to criticism of research. It also shows the complexity of quantifying the stress phenomenon. Evidence indicates that in the face of repeated disasters, some people, by nature of their personalities, appear immune to stress. (This is addressed in more detail in Chapter 6.) A modified version of the Social Readjustment Rating Scale has been defined for college students (Table 1.3).

While major life events like getting married (Fig. 1.5) or relocating for a new job may be chronic stressors to some, renowned stress researcher Richard Lazarus hypothesized in 1984 that the accumulation of acute stressors or daily life hassles, such as locking your keys in your car, playing telephone tag, or driving to work every day in traffic, is just as likely to adversely affect one’s health as the death of a spouse (Table 1.4). These hassles are often based on unmet expectations that trigger an anger response of some type, whereas stressors of a chronic nature more often than not appear to have a greater association with fear and anxiety. Lazarus defined hassles as “daily interactions with the environment that were essentially negative.” He also hypothesized that a balance of emotional experiences—positive emotions as well as negative ones—is necessary, and that people who have no exposure to life’s “highs” or emotional uplifts are also susceptible to disease and illness. Further research by Lazarus (1983, 1984), Ornstein and Sobel (1989), and others has proved that his hypothesis has significant merit regarding stress and disease. As might be expected, the issue of lifestyle habits, changes, and hassles as social influences has come under attack by those who argue that perception or cognition plays an important role in the impact of stressors. Suffice it to say that all stressors, regardless of classification...
The Nature of Stress

TABLE 1.1  Social Readjustment Rating Scale

<table>
<thead>
<tr>
<th>Rank</th>
<th>Life Event</th>
<th>LCU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Death of a spouse</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Divorce</td>
<td>73</td>
</tr>
<tr>
<td>3</td>
<td>Marital separation</td>
<td>65</td>
</tr>
<tr>
<td>4</td>
<td>Jail term</td>
<td>63</td>
</tr>
<tr>
<td>5</td>
<td>Death of close family member</td>
<td>63</td>
</tr>
<tr>
<td>6</td>
<td>Personal injury or illness</td>
<td>53</td>
</tr>
<tr>
<td>7</td>
<td>Marriage</td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>Fired at work</td>
<td>47</td>
</tr>
<tr>
<td>9</td>
<td>Marital reconciliation</td>
<td>45</td>
</tr>
<tr>
<td>10</td>
<td>Retirement</td>
<td>45</td>
</tr>
</tbody>
</table>


The General Adaptation Syndrome

Following Cannon’s lead early in the twentieth century, Hans Selye, a young endocrinologist who created a name for himself as a leading researcher in this field, studied the fight-or-flight response, specifically the physiological effects of chronic stress, using rats as subjects. In experiments designed to stress the rats, Selye noted that several physiological adaptations occurred as a result of repeated exposures to stress, adaptations that had pathological repercussions. Examples of these stress-induced changes included the following:

1. Enlargement of the adrenal cortex (a gland that produces stress hormones)
2. Constant release of stress hormones; corticosteroids released from the adrenal cortex
3. Atrophy or shrinkage of lymphatic glands (thymus gland, spleen, and lymph nodes)
4. Significant decrease in the white blood cell count
5. Bleeding ulcerations of the stomach and colon
6. Death of the organism

Many of these changes were very subtle and often went unnoticed until permanent damage had occurred. Selye referred to these collective changes as the **general adaptation syndrome** (GAS), a process in which the body tries to accommodate stress by adapting to it. From his research, Selye identified three stages of the general adaptation syndrome:

**Stage one: Alarm reaction.** The alarm reaction describes Cannon’s original fight-or-flight response. In this stage several body systems are activated, primarily the nervous system and the endocrine system, followed by the cardiovascular, pulmonary, and musculoskeletal systems. Like a smoke detector alarm buzzing late at night, all senses are put on alert until the danger is over.

**Stage two: Stage of resistance.** In the resistance stage, the body tries to revert back to a state of physiological calmness, or homeostasis, by resisting the alarm. Because the perception of a threat still exists, however, complete homeostasis is never reached. Instead, the...
## Social Readjustment Rating Scale

<table>
<thead>
<tr>
<th>Life-Change Event</th>
<th>LCU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health</strong></td>
<td></td>
</tr>
<tr>
<td>An injury or illness that kept you in bed a week or more,</td>
<td></td>
</tr>
<tr>
<td>or sent you to the hospital</td>
<td>74</td>
</tr>
<tr>
<td>Was less serious than above</td>
<td>44</td>
</tr>
<tr>
<td>Major dental work</td>
<td>26</td>
</tr>
<tr>
<td>Major change in eating habits</td>
<td>27</td>
</tr>
<tr>
<td>Major change in sleeping habits</td>
<td>26</td>
</tr>
<tr>
<td>Major change in your usual type and/or amount of recreation</td>
<td>28</td>
</tr>
<tr>
<td><strong>Work</strong></td>
<td></td>
</tr>
<tr>
<td>Change to a new type of work</td>
<td>51</td>
</tr>
<tr>
<td>Change in your work hours or conditions</td>
<td>35</td>
</tr>
<tr>
<td>Change in your responsibilities at work</td>
<td></td>
</tr>
<tr>
<td>More responsibilities</td>
<td>29</td>
</tr>
<tr>
<td>Fewer responsibilities</td>
<td>21</td>
</tr>
<tr>
<td>Promotion</td>
<td>31</td>
</tr>
<tr>
<td>Demotion</td>
<td>42</td>
</tr>
<tr>
<td>Transfer</td>
<td>32</td>
</tr>
<tr>
<td><strong>Troubles at work</strong></td>
<td></td>
</tr>
<tr>
<td>With your boss</td>
<td>29</td>
</tr>
<tr>
<td>With co-workers</td>
<td>35</td>
</tr>
<tr>
<td>With persons under your supervision</td>
<td>35</td>
</tr>
<tr>
<td>Other work troubles</td>
<td>28</td>
</tr>
<tr>
<td>Major business adjustment</td>
<td>60</td>
</tr>
<tr>
<td>Retirement</td>
<td>52</td>
</tr>
<tr>
<td><strong>Loss of job</strong></td>
<td></td>
</tr>
<tr>
<td>Laid off from work</td>
<td>68</td>
</tr>
<tr>
<td>Fired from work</td>
<td>79</td>
</tr>
<tr>
<td>Correspondence course to help you in your work</td>
<td>18</td>
</tr>
<tr>
<td><strong>Home and Family</strong></td>
<td></td>
</tr>
<tr>
<td>Major change in living conditions</td>
<td>42</td>
</tr>
<tr>
<td><strong>Change in residence</strong></td>
<td></td>
</tr>
<tr>
<td>Move within the same town or city</td>
<td>25</td>
</tr>
<tr>
<td>Move to a different town, city, or state</td>
<td>47</td>
</tr>
<tr>
<td>Change in family get-togethers</td>
<td>25</td>
</tr>
<tr>
<td>Major change in health or behavior of family member</td>
<td>55</td>
</tr>
<tr>
<td>Marriage</td>
<td>50</td>
</tr>
</tbody>
</table>
### TABLE 1.2 Social Readjustment Rating Scale (Continued)

<table>
<thead>
<tr>
<th>Life-Change Event</th>
<th>LCU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td>67</td>
</tr>
<tr>
<td>Miscarriage or abortion</td>
<td>65</td>
</tr>
<tr>
<td>Gain of a new family member</td>
<td></td>
</tr>
<tr>
<td>Birth of a child</td>
<td>66</td>
</tr>
<tr>
<td>Adoption of a child</td>
<td>65</td>
</tr>
<tr>
<td>A relative moving in with you</td>
<td>59</td>
</tr>
<tr>
<td>Spouse beginning or ending work</td>
<td>46</td>
</tr>
<tr>
<td>Child leaving home</td>
<td></td>
</tr>
<tr>
<td>To attend college</td>
<td>41</td>
</tr>
<tr>
<td>Because of marriage</td>
<td>41</td>
</tr>
<tr>
<td>For other reasons</td>
<td>45</td>
</tr>
<tr>
<td>Change in arguments with spouse</td>
<td>50</td>
</tr>
<tr>
<td>In-law problems</td>
<td>38</td>
</tr>
<tr>
<td>Change in the marital status of your parents</td>
<td></td>
</tr>
<tr>
<td>Divorce</td>
<td>59</td>
</tr>
<tr>
<td>Remarriage</td>
<td>50</td>
</tr>
<tr>
<td>Separation from spouse</td>
<td></td>
</tr>
<tr>
<td>Because of work</td>
<td>53</td>
</tr>
<tr>
<td>Because of marital problems</td>
<td>76</td>
</tr>
<tr>
<td>Divorce</td>
<td>96</td>
</tr>
<tr>
<td>Birth of grandchild</td>
<td>43</td>
</tr>
<tr>
<td>Death of spouse</td>
<td>119</td>
</tr>
<tr>
<td>Death of other family member</td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td>123</td>
</tr>
<tr>
<td>Brother or sister</td>
<td>102</td>
</tr>
<tr>
<td>Parent</td>
<td>100</td>
</tr>
<tr>
<td><strong>Personal and Social</strong></td>
<td></td>
</tr>
<tr>
<td>Change in personal habits</td>
<td>26</td>
</tr>
<tr>
<td>Beginning or ending school or college</td>
<td>38</td>
</tr>
<tr>
<td>Change of school or college</td>
<td>35</td>
</tr>
<tr>
<td>Change in political beliefs</td>
<td>24</td>
</tr>
<tr>
<td>Change in religious beliefs</td>
<td>29</td>
</tr>
<tr>
<td>Change in social activities</td>
<td>27</td>
</tr>
<tr>
<td>Vacation</td>
<td>24</td>
</tr>
<tr>
<td>New, close, personal relationship</td>
<td>37</td>
</tr>
<tr>
<td>Engagement to marry</td>
<td>45</td>
</tr>
</tbody>
</table>
Selye’s general adaptation syndrome outlined the parameters of the physiological dangers of stress. His research opened the doors to understanding the strong relationship between stress and disease and the mind-body-spirit equation. In addition, his work laid the foundation for the utilization of relaxation techniques that have the ability to intercept the stress response, thereby decreasing susceptibility to illness and disease. Congruent with standard medical practice of his day (and even today), initial stress management programs were geared toward reducing or eliminating the symptoms of stress. Unfortunately, this approach has not always proved successful.

### Stress in a Changing World

All you need do is glance at the covers of *Time*, *Newsweek*, *U.S. News and World Report*, *Psychology Today*, or *Reader’s Digest* to see and read what we already know:
These are stressful times! But the stress we are encountering as a nation is not specific to being a world power. The problem seems to have reached every corner of the planet, permeating the borders of every country, province, and locale. In fact, after conducting several surveys on the topic of stress and illness, the World Health Organization came to the conclusion that stress is hitting a fever pitch in every nation. So alarmed were they by the results of their study that the WHO researchers cited stress as “a global epidemic.”

On the home front it appears that stress, like a virus, has infected the American population, and the symptoms are everywhere: Radio talk shows have become a national forum for complaining; political pundits repeatedly describe voter anger; headlines are filled with stories of people who have gone berserk with hostility, most notably road rage; television talk shows are reduced to airing personal catharses; workplace violence has escalated to several incidences per month in which co-workers are shot and killed; the American dream is out of reach for many; and psychologists describe a spiritual malaise that has swept the country. In 1995, a small but prophetic article titled “Bowling Alone,” by Harvard political scientist Robert Putnam, sent ripples throughout the nation. Years of research led Putnam to discover that communities are disintegrating, as are the civic institutions on which communities are based. And in the landmark book *Emotional Intelligence*, author Daniel Goleman provides a dismal forecast with regard to the emotional state of this nation’s children, a generation of youngsters raised on television violence. Yet where there is despair, there is also compassion. The devastating earthquake and tsunami in Southeast Asia in December 2004 brought out the best in some, as countless people came to the aid of their fellow human beings across the globe.

The sociology of stress can prove to be a fascinating study of interrelated factors that form a confluence of several recognizable stressors. Indeed, we encounter many social triggers daily, yet, at a closer look, the finger often points to our relationship with technology and our dependence on it. Whether it be faxes, upgrades, downloads, email, overnight shipping, telecon-

### TABLE 1.3

<table>
<thead>
<tr>
<th>Event</th>
<th>LCU</th>
<th>Event</th>
<th>LCU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death of close family member</td>
<td>100</td>
<td>Increased workload at school</td>
<td>37</td>
</tr>
<tr>
<td>Death of a close friend</td>
<td>73</td>
<td>Outstanding personal achievement</td>
<td>36</td>
</tr>
<tr>
<td>Divorce between parents</td>
<td>65</td>
<td>First quarter/semester in college</td>
<td>35</td>
</tr>
<tr>
<td>Jail term</td>
<td>63</td>
<td>Change in living conditions</td>
<td>31</td>
</tr>
<tr>
<td>Major personal injury or illness</td>
<td>63</td>
<td>Serious argument with instructor</td>
<td>30</td>
</tr>
<tr>
<td>Marriage</td>
<td>58</td>
<td>Lower grades than expected</td>
<td>29</td>
</tr>
<tr>
<td>Fired from job</td>
<td>50</td>
<td>Change in sleeping habits</td>
<td>29</td>
</tr>
<tr>
<td>Failed important course</td>
<td>47</td>
<td>Change in social activities</td>
<td>29</td>
</tr>
<tr>
<td>Change in health of family member</td>
<td>45</td>
<td>Change in eating habits</td>
<td>28</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>45</td>
<td>Chronic car trouble</td>
<td>26</td>
</tr>
<tr>
<td>Sex problems</td>
<td>44</td>
<td>Change in number of family get-togethers</td>
<td>26</td>
</tr>
<tr>
<td>Serious argument with close friend</td>
<td>40</td>
<td>Too many missed classes</td>
<td>25</td>
</tr>
<tr>
<td>Change in financial status</td>
<td>39</td>
<td>Change of college/change of work</td>
<td>24</td>
</tr>
<tr>
<td>Trouble with parents</td>
<td>39</td>
<td>Dropped more than one class</td>
<td>23</td>
</tr>
<tr>
<td>Change of major</td>
<td>39</td>
<td>Minor traffic violations</td>
<td>20</td>
</tr>
<tr>
<td>New girlfriend or boyfriend</td>
<td>38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ferences, beepers, cellular phones, or laptop computers, there is a growing dependence on the convenience of high technology, and concerns of privacy. Current estimates reveal that we spend more time at work, leaving less time to be at home with the family, and we are now accessible twenty-four hours a day. What’s more, with several years of corporate downsizing and restructuring, Americans are realizing for the first time that there really is no such thing as job security as many jobs become outsourced overseas.

Stress, it seems, knows no age, race, gender, religion, nationality, or socioeconomic class. For this reason, it is called “the equal opportunity destroyer,” for when left unresolved, stress can undermine all aspects of your life. Although it may seem that stress becomes a critical mass in your life once you leave home and go to college, the truth is that the episodes and behaviors associated with stress start much earlier than the college years. Pressures in high school, even grade school, as evidenced by school shootings and cases of self-mutilations, are well documented. Combined with the stress of high technology, the effects are exponential. First let’s take a look at high-tech stress and then focus on stress in the college setting, occupational stress, and finally stress and the retired population.

Recently psychologists have examined the role of minor stressors in the development of disease and illness. The following sample items from the Hassles Scale (Kanner et al.) indicate what might be perceived to be everyday hassles or petty annoyances.

1 = somewhat severe; 2 = moderately severe; 3 = extremely severe

Directions: Hassles are small irritants that can range from minor annoyances to fairly major pressures, problems, or difficulties. They can occur few or many times. Listed below are a number of ways in which a person can feel hassled. First, circle the hassles that have happened to you in the past month. Then look at the numbers to the right of the items you circled. Indicate by circling a 1, 2, or 3 how severe each of these circled hassles has been for you in the past month. If a hassle did not occur in the last month, do not circle it.

1. Not getting enough sleep 1 2 3
2. Job dissatisfaction 1 2 3
3. Use of alcohol 1 2 3
4. Inconsiderate smokers 1 2 3
5. Thoughts about death 1 2 3
6. Health of a family member 1 2 3
7. Not enough money for clothing 1 2 3
8. Concerns about owing money 1 2 3
9. Fear of rejection 1 2 3
10. Concern about weight 1 2 3

The Hassles Scale has over 118 items. These questions provide only a sample and thus it is not possible to evaluate your personal daily hassles from this set. The second part of this scale is referred to as the Uplift Scale, a series of 136 questions to determine what events promote joy and happiness. The following is a sample.

1. Being with younger people 1 2 3
2. Entertainment 1 2 3
3. Laughing 1 2 3
4. Being one with the world 1 2 3
5. Hugging or kissing 1 2 3

Stress with a Human Face

Sean’s body was a human battlefield. To have an ulcer at age seventeen isn’t unique, but it isn’t common either. Most people who get ulcers are over the age of thirty; Sean was fourteen when he first developed his. A routine visit to the dentist signaled another problem: temporomandibular joint (TMJ) dysfunction. It seemed that daytime skirmishes occurred in the stomach while nighttime combat maneuvers took place in the jaw. And when he didn’t have migraine headaches, Sean was always coming down with a cold. Thinking back, Sean realized that the link between stress and the ulcer was more than obvious. The call to arms began when he was abused as a child, and flare-ups continued after a serious driving accident in which manslaughter charges were pressed against him and then dropped after a year of litigation. Sean’s body was in a constant state of exhaustion. A dream in which he was having a beer with the angel of death was enough to seek help. Sean enrolled in a stress management program and now, as he says in his own words, “The war’s over, I have declared peace, and I am ready to reconstruct a new life.”

Technostress

As we begin a new century and millennium, a new term has taken hold in the American vernacular: technostress. It means to cope (or not cope) with the rapid pace of technology. The boom in the telecommunications industry and computer industry, pillars of the information age, have led to an overnight lifestyle change in American (and global) society. In their book Technostress, authors Weil and Rosen suggest that the rapid pace of technology will only continue with greater speed in the coming years, giving a whole new meaning to the expression “24-7.” They predict, as do others, that the majority of people, feeling overwhelmed, will not deal well with this change. The result will be more stress, more illness and disease, more addictions, more dysfunction, and a greater imbalance in life. There is a general consensus that the rate of change with technology has far outpaced the level of responsibility and moral codes that typically accompany the creative process. The following are some aspects of technostress as they currently affect one’s life and will continue to do so:

- **Information overload:** Among a flood of emails, faxes, WWW advertisements, pop-ups, instant messages, magazines, and voice mail, it is easy to become overwhelmed with the inundation of information, particularly emails. The time spent reviewing and responding to a slew of emails and voice mails, not to mention deleting spam and pop-up ads, can set one back several hours.

- **Boundaries:** Less than twenty years ago, there were clear-cut boundaries between one’s personal and professional lives. Today the boundaries have dissolved to a point where it’s hard to tell where one ends and the next begins. With cell phones, pagers, beepers, and palm computers, a person can be accessed every minute of the day. People feel compelled to take these devices to movie theaters, plays, restaurants, and even on vacations. While the expression “24-7” was first coined to refer to retail shopping, it now conveys nonstop accessibility.

- **Privacy:** With constant accessibility one forfeits privacy. However, with many purchases made on the WWW, each person develops a consumer profile, which then is sold to a host of other vendors. From “cookies” to electronic/digital markers, privacy has become a real issue in the information age. With advances in reducing the microchip to the size of a molecule, information storage will go from the smart card to biotech implants.

- **Ethics:** With the completion of the Human Genome Project, scientists may be able to identify persons likely to inherit genetic-based diseases. Fear arises when this information falls into the
Muscle tension may be the number one symptom of stress, but in our ever-present, demanding 24-7 society, insomnia runs a close second. **Insomnia** is best defined as poor-quality sleep, abnormal wakefulness, or the inability to sleep, and it can affect anyone. Overall, Americans get 20 percent less sleep than their nineteenth-century counterparts. According to a recent survey by the National Sleep Foundation, more than 60 percent of Americans suffer from poor sleep quality, resulting in everything from falling asleep on the job and marital problems to car accidents and lost work productivity.

Numerous studies have concluded that a regular good night’s sleep is essential for optimal health, whereas chronic insomnia is often associated with several kinds of psychiatric problems. Emotional stress (the preoccupation with daily stressors) is thought to be a primary cause of insomnia. The result: an anxious state of mind where thoughts race around, ricocheting from brain cell to brain cell, never allowing a pause in the thought processes, let alone allowing the person to nod off.

Many other factors (sleep stealers) detract from one’s **sleep hygiene** that can affect the quality of sleep, including hormonal changes (e.g., premenstrual syndrome, menopause), excessive caffeine intake, little or no exercise, frequent urination, circadian rhythm disturbances (e.g., jet lag), shift work, medication side effects, and a host of lifestyle behaviors (e.g., prolonged television watching, alcohol consumption, cell phone use) that infringe on a good night’s sleep.

How much sleep is enough to feel recharged? Generally speaking, eight hours of sleep is the norm, although some people can get as few as six hours of sleep and feel fully rested. Others may need as many as ten hours. New findings suggest that adolescents, including all people up to age twenty-two, need more than eight hours of sleep.

Not only can stress (mental, emotional, physical, or spiritual) affect quality and quantity of sleep, but the rebound effect of poor sleep can, in turn, affect stress levels, making the poor sleeper become more irritable, apathetic, or cynical. Left unresolved, it can become an unbroken cycle (negative feedback loop). While many people seek medical help for insomnia and are often given a prescription, drugs should be considered as a last resort. Many (if not all) techniques for stress management have proven to be effective in promoting a good night’s sleep, ranging from cardiovascular exercise to meditation.

The field of sleep research began in earnest more than sixty years ago. Yet, despite numerous studies, the reason why we spend approximately one-third of our lives in slumber still baffles scientists. From all appearances, sleep promotes physical restoration. However, when researchers observe sleep-deprived subjects, it’s the mind—not the body—that is most affected, with symptoms of poor concentration, poor retention, and poor problem-solving skills.

Insomnia is categorized in three ways: transient (short term with one or two weeks affected), intermittent (occurs on and off over a prolonged period), and chronic (the inability to achieve a restful night of sleep over many, many months). While each of these categories is problematic, chronic insomnia is considered the worst.

All-nighters, exam cramming, late-night parties, and midnight movies are common in the lives of college undergraduates, but the cost of these behaviors often proves unproductive. Unfortunately, the population of people who seem to need the most sleep, but often gets the least amount, are adolescents younger than age twenty.

Although sleep may be relaxing, it is important to remember that sleeping is not a relaxation technique. Studies show that heart rate, blood pressure, and muscle tension can rise significantly during the dream state of sleep. What we do know is that effective coping and relaxation techniques greatly enhance one’s quality of sleep. (Throughout the course of this book, the topic of sleep will be addressed.)
The Nature of Stress

hands of insurance companies that can revoke policies based on genetic profiling.

While gene treatment therapy is currently in the experimental stages, another scientific breakthrough is genetic cloning, which carries with it many moral and ethical concerns, as does genetic research. Genetically modified foods (GMOs), where genes of pesticides, flounder, and nuts, for example, are placed in tomatoes, corn, and soybeans, are raising ethical issues as well.

- **Less family time:** A recent study at Stanford University revealed that unlike television watching, which can be done as a family, surfing the Internet is a singular activity. Thus, people are spending more time on their home computers and less time with each other.

- **Computer dating:** As people spend more and more time plugged into their computers, they find less time for social activities. Many people are now turning to chat rooms as a means to enter the realm of cyber dating.

- **Outdated technology:** What was once considered science fiction (cell phones on *Star Trek*) is now becoming a reality. It is suggested that with file formats like MP3, music CDs will soon become obsolete. VCRs have given way to DVDs, which in turn will give way to something else. The money spent on these “toys” often goes down the drain in a short time.

College Stress

What makes the college experience a significant departure from the first eighteen years of life is the realization that with the freedom of lifestyle choices come the responsibilities that go with it. Unless you live at home while attending school, the college experience is one in which you transition from a period of dependence (on your parents) to independence. As you move from the known into the unknown, the list of stressors a college student experiences is rather startling. Here is a sample of some of the more common stressors that college students encounter.

- **Roommate dynamics:** Finding someone who is compatible is not always easy, especially if you had your own room in your parents’ house. As we all know or will quickly learn, best friends do not make the best roommates, yet roommates can become good friends over time. Through it all, roommate dynamics involve the skills of compromise and diplomacy under the best and worst conditions. And should you find yourself in an untenable situation, remember, campus housing does its best to accommodate students and resolve problems. However, their time schedule and yours may not always be the same.

- **Professional pursuits:** What major should I choose? Perhaps one of the most common soul-searching questions to be asked in the college years is, What do I want to do the rest of my life? It is a well-known fact that college students can change although most Americans admit to being very stressed, in comparison to half the planetary citizens who earn less than $2 per day and struggle to survive with substandard living conditions, we have it pretty darn good!

**FIGURE 1.6** Although most Americans admit to being very stressed, in comparison to half the planetary citizens who earn less than $2 per day and struggle to survive with substandard living conditions, we have it pretty darn good!

- **The ever-widening “digital divide”:** The expression “The rich get richer and the poor get poorer” rings true for those who do not have a computer or who cannot keep upgrading their software. With computers becoming the cars of the twenty-first century, those without them will be at a disadvantage in terms of accessing the information superhighway.

- **Insomnia:** Poor quality sleep, abnormal wakefulness, or the inability to sleep.

- **Sleep hygiene:** Factors that affect one’s quality of sleep, from hormonal changes and shift work to excessive caffeine intake.
majors several times in their college careers and many do. The problem is compounded when there is parental pressure to move toward a specific career path (e.g., law or medicine) or the desire to please your parents by picking a major that they like but you don’t.

- **Academic deadlines (exams, papers, and projects):** Academics means taking midterms and finals, writing research papers, and completing projects. This is, after all, the hallmark of measuring what you have learned. With a typical semester load of fifteen to twenty credits, many course deadlines can fall on the same day, and there is the ever-present danger that not meeting expectations can result in poor grades or academic probation.

- **Financial aid and school loans:** If you have ever stood in the financial aid office during the first week of school, you could write a book on the topic of stress. The cost of a college education is skyrocketing, and the pressure to pay off school loans after graduation can make you feel like an indentured servant. Assuming you qualify for financial aid, you should know that receiving the money in time to pay your bills is rare. Problems are compounded when your course schedule gets expunged from computer records because your financial aid check was two weeks late. These are just some of the problems associated with financial aid.

- **Budgeting your money:** It’s one thing to ask your parents to buy you some new clothes or have them pick up the check at a restaurant. It’s quite another when you start paying all your own bills. Learning to budget your money is a skill that takes practice. And learning not to overextend yourself is not only a skill, but also an art (most Americans owe an average of $5,000–8,000 on their credit cards). At some time or other, everyone bounces a check. The trick to avoid doing it is not to spend money you do not have and live within your means.

- **Lifestyle behaviors:** The freedom to stay up until 2 A.M. on a weekday, skip a class, eat nothing but junk food, or take an impromptu road trip carries with it the responsibilities of these actions. Independence from parental control means balancing freedom with responsibility. Stress enters your life with a vengeance when freedom and responsibility are not balanced.

- **Peer groups and peer pressure (drugs and alcohol):** There is a great need to feel accepted by new acquaintances in college, and this need often leads to succumbing to peer pressure—and in new environments with new acquaintances, peer pressure can be very strong. Stress arises when the actions of the group are incongruent with your own philosophies and values. The desire to conform to the group is often stronger than your willpower to hold your own ground.

- **Exploring sexuality:** While high school is the time when some people explore their sexuality, this behavior occurs with greater frequency during the college years, when you are away from the confines of parental control and more assertive with your self-expression. With the issue of sexual exploration come questions of values, contraception, pregnancy, homosexuality, bisexuality, AIDS, abortion, acceptance, and impotence, all of which can be very stressful. Although one does not come to college specifically to explore one’s sexuality, many a student has left because sexual pursuits took priority over academic interests, resulting in poor grades.

- **Friendships:** The friendships made in college take on a special quality. As you grow, mature, and redefine your values, your friends, like you, will change, and so will the quality of each friendship. Cultivating a quality relationship takes time, meaning you cannot be good friends with everyone you like. In addition, tensions can quickly mount as the dynamics between you and those in your close circle of friends come under pressure from all the other college stressors.

- **Intimate relationships:** Spending time with one special person with whom you can grow in love is special indeed. But the demands of an intimate relationship are strong, and in the presence of a college environment, intimate relationships are under a lot of pressure. If and when the relationship ends, the aftershock can be traumatic for one or both parties, leaving little desire for one’s academic pursuits.

- **Starting a professional career path:** It’s a myth that you can start a job making the same salary that your parents make, but many college students believe this to be true. With this myth comes the pressure to equal the lifestyle of one’s parents the day after graduation (this may explain why so many college graduates return home to live after graduation). The perceived pressures of the real
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world can become so overwhelming that seniors procrastinate on drafting a resume or initiating the job search until the week of graduation.

For the nontraditional college student, the problem can be summarized in one word: balance! Trying to balance a job, family, and schoolwork becomes a juggling act extraordinare. In attempting to satisfy the needs of your supervisor, colleagues, friends, spouse, children, and parents (and perhaps even pets), what usually is squeezed out is time for yourself. In the end everything seems to suffer. Often schoolwork is given a lower priority when addressing survival needs, and typically this leads to feelings of frustration over the inadequacy of time and effort available for assignments or exams. Of course, there are other stressors that cross the boundaries between work, home, and school, all of which tend to throw things off balance as well.

Occupational Stress

Stress doesn’t end with college exams and research papers. It seems to continue and perhaps increase as one continues on a career path. Paul Rosch, M.D., director of the American Institute of Stress, notes that in American society today, job stress is at an all-time high. He defines job stress as “occupational duties in which the individual perceives having a great deal of responsibility, yet little or no authority or decision making latitude.”

In the first decade of the twenty-first century, more companies will merge, meaning more corporate restructuring. Companies looking to appease stockholders will look for ways to trim budgets, especially by letting go of senior employees and replacing them with a young and eager workforce, and outsource the rest of the jobs to India or China. Experts predict a high burnout rate factor coupled with poor work quality as workplace loyalty continues to diminish. Whether it is corporate mergers or keeping pace with technology, the Mitchum Report on Stress in the ’90s confirms what several recent polls indicate. Nine out of ten people said they experience high levels of stress several times per week, and one out of four people indicated that they have high stress levels every day. While the Mitchum Report on Stress noted that common stressors in American society include urban crime, AIDS, and environmental problems such as the greenhouse effect, work-related problems—by far—constitute the critical mass of stress in our lives.

The cost of stress is not insignificant in terms of work productivity or the bottom line of corporate profits.

Rosch noted that the fiscal consequences of occupational stress cost an average of $200 billion each year. Moreover, between 60 and 80 percent of all industrial accidents are stress induced, as are over 80 percent of all office visits to primary care physicians. Perhaps most striking is that workers’ compensation claims associated with stress are skyrocketing, with 90 percent of claims being awarded in settlements.

What are some reasons for job stress? Although perceptions will vary from person to person, the following is a list compiled by the National Safety Council:

- Too much responsibility with little or no authority
- Unrealistic expectations, deadlines, and quotas
- Corporate downsizing, restructuring, or job relocation
- Inadequate training
- Lack of appreciation
- Inadequate time to complete job responsibilities
- Inability to voice concerns
- Lack of creativity and autonomy
- Too much to do with too few resources
- Lack of clear job descriptions
- Inadequate child care
- Poor working conditions (lighting, noise, ventilation)
- Sexual harassment and racial discrimination
- Workplace violence

Rosch noted that in a recent study, the Public Health Service placed stress-management courses as its top priority in an effort to improve health standards at the worksite. However, Rosch, who surveyed several hundred existing stress-management programs in cooperation with the Office of Occupational Safety and Health, came to the conclusion that few stress-management programs currently taught in the corporate or industrial setting offer enough substance to make a positive influential change in lifestyle behaviors, because they are too narrow in focus or too brief in duration. Those programs he did find to be effective showed reduced illness and absenteeism, higher morale, and increased productivity.
Stress and the Retired Population

A gold watch at age sixty-five was once a coveted prize as one transitioned from the career path to the vacation path of retirement, but not anymore. Loss of corporate pensions and benefits, decreased Social Security funds, rising health care costs, and jeopardized Medicare benefits leave one quite vulnerable. Several studies reveal that the biggest concerns seniors have today are making ends meet financially and maintaining a quality of life comparable to what they had prior to retirement. Seniors do not take their retirement lightly. Any lawmaker will tell you that one of the biggest and most powerful lobbying groups on Capitol Hill today is the American Association of Retired Persons (AARP), a strong voice for people who intend to make sure their voice is heard well after they retire from the workforce.

So serious is the threat to financial security that many people who reach retirement between the ages of sixty and sixty-five feel that they cannot retire. Although they may leave the company where they worked for years, quite often they search for another job to assure some degree of financial security. Those who do retire in financial comfort are not devoid of stress either. Studies of seniors reveal that those who place all their self-worth in their jobs, without any outside interests (e.g., hobbies), leave their job structures and quickly fall prey to disease and illness. Added to the stress of financial insecurity are the ever-changing dynamics of increased health problems, the deaths of close friends, the death of a spouse, changes in living environments, and the realization of one’s own mortality.

A Holistic Approach to Stress Management

When the stress response was first recognized, much attention was given to the physical aspects of the dynamics involved with fight-or-flight, specifically the symptoms of stress. As this field of study expanded to explore the relationship between stress and disease, it began to overlap, and to some extent even merge, with the fields of psychology, sociology, theology, anthropology, physics, health, and clinical medicine. What was once thought to be a physical response, and then referred to as a mind-body phenomenon, is now suggested to be a complex, multifaceted, or holistic phenomenon involving the mental, physical, emotional, and spiritual components of well-being. Looking at stress from these four different perspectives may explain why there are so many definitions of it. Ironically, this new insight continues to produce some tension within the community of healthcare professionals.

Medical science is slowly experiencing a paradigm shift. A paradigm is a conceptual model used to understand a common reality. A shift is a change in the perception of that reality. For the past 370 years or so, Western culture has adopted a mechanistic model of reality, due in large part to the philosophy of René Descartes that the mind and body are separate, and to the laws of physics created by Isaac Newton, some of which are believed to have been inspired by Descartes. The mechanistic paradigm compares the universe and all its components to a large mechanical clock, where everything operates in a sequential and predictable form. When it was first developed, the mechanistic model, also called the reductionist model, seemed to logically explain nearly every phenomenon.
The field of medicine, strongly influenced by Newtonian physics, applied the mechanistic model to the human organism, comparing the body to a clock as well. This applied paradigm, during what Dr. Larry Dossey called Era I medicine, focused on symptoms of dysfunction, and like a watch repairman, physicians were trained to fix or repair any parts that were broken. Drugs and surgery became the two primary tools forged in the discipline of clinical medicine. Prime examples of the fix-or-replace method include the prescription of penicillin and organ transplants, respectively. To no one’s surprise, the application of this mechanistic model in medicine virtually stripped the responsibility of healing from the patient and placed it completely into the hands of the attending physician(s). There is no denying that many advances in clinical medicine have been nothing less than astonishing. Take, for example, heart and liver transplants and total hip replacements. Yet along with these magnificent achievements are significant limitations and hazardous side effects. Today medicine is aptly referred to as an art as well as a science, but in the mechanistic model of reality, anything that cannot be measured or quantified is still virtually ignored. Moreover, anything that cannot be scientifically explained by cause and effect is dismissed as superstition and regarded as invalid. What this medical paradigm failed to include was the dimension of the human spirit, an unmeasurable source of energy with a potential healing power all its own. The human spirit is now considered so important by the World Health Organization (WHO) that it issued a statement saying, “The existing definition of health should include the spiritual aspect, and that health care should be in the hands of those who are fully aware of and sympathetic to the spiritual dimension.”

However, the Newtonian paradigm was viewed as the ultimate truth until the turn of the twentieth century, when a young physicist named Albert Einstein introduced his theory of relativity in 1905. In simple terms, Einstein said that all matter is energy, and furthermore, all matter is connected at the subatomic level. No single entity can be affected without all connecting parts similarly being affected. From Einstein’s view, the universe isn’t a giant clock but a living web. New ideas are often laughed at, and old ideas die hard. But as new truths unfold, they gather curious followers who test and elaborate on the original idea. Initially mocked, the complexities of Einstein’s theory have gained appreciation among physicists today, leading to the frontiers of the new field of quantum physics and a whole new understanding of our universe in what is now called the whole systems theory. In his attempt to understand the big picture, one of Einstein’s more colorful quotes states, “Gravity is not responsible for people falling in love.”

Although current medical technology is incredibly sophisticated, physicians for the most part still view the human body as a clock with fixable or replaceable parts. In other words, the basic approach to modern medicine in the Western world has not changed in over 375 years. Furthermore, the mind and body, so completely separate in the theory of Descartes, are still treated separately, not as one living system. The idea of a mind-body connection (which in rare cases appears powerful enough to make cancers go into spontaneous remission) is still as foreign a concept to most physicians today as the idea of a Mac iPod would have been to the founders of the United States over 230 years ago. But new discoveries in the field of medicine have not fit so nicely into the concept of mechanical clock or reductionist theory. Instead, they mirror Einstein’s concept of an intricate network of connecting systems. As a result, standard concepts regarding health and disease are slowly beginning to give way to a more inclusive reality or paradigm. As an example, very recently medical researchers have learned that emotions can suppress the immune system, an idea thought to be inconceivable and ludicrous only a decade ago. The body-as-clock mentality no longer seems to answer all the questions posed about the human organism; and thus some issues, like subtle energy systems and the placebo effect, are being completely reexamined.

But old paradigms are not abandoned until new conceptual models are created and established. Ironically, some new paradigms are actually old concepts that have been dusted off and resurrected. Such is the case with a very old but newly rediscovered health paradigm strongly paralleling Einstein’s theory and called the holistic wellness paradigm. This model suggests that

Albert Einstein: A world-renowned theoretical physicist who revolutionized perceptions of reality with the equation $E = mc^2$, suggesting that everything is energy. His later years focused on a spiritual philosophy including pacifism.

Wellness paradigm: The integration, balance, and harmony of mental, physical, emotional, and spiritual well-being through taking responsibility for one’s own health; posits that the whole is greater than the sum of the parts.
total wellness is the balance, integration, and harmony of the physical, intellectual, emotional, and spiritual aspects of the human condition. These four components of total well-being are so closely connected and interwoven that it is virtually impossible to divide them. Although for the purposes of academic study these areas are best understood separately, in reality they all act as one interconnected living system, just as Einstein hypothesized about the universe.

The word health is derived from the Anglo word hal, meaning “to heal, to be made whole, or to be holy”; and throughout the ages wholeness has been symbolized by a circle. The wellness philosophy states that the whole is always greater than the sum of the parts and all parts must be looked at as one system. When applied to clinical medicine, this philosophy indicates that all aspects of the individual must be treated equally and each considered part of the whole. Although advances have been made to integrate a host of mind-body-spirit healing modalities into Western health care, by and large, conventional medical practice still treats the physical component—the symptoms of stress—with drugs and surgery, often disregarding how the physical body connects with the mental, emotional, and spiritual aspects of well-being. Some physicians still refuse to acknowledge the link between stress and disease because they were trained in and are loyal to the mechanistic model. Nontraditional approaches (of which stress management is a part), specifically biofeedback, meditation, massage therapy, and mental imagery, are commonly referred to as alternative medicine by the American Medi-
The Nature of Stress

Because the word alternative has a negative connotation to many practitioners in the field of holistic wellness, the words complementary and integrative medicine are now used to refer to additional healing modalities. Every technique for stress management falls within the domain of complementary medicine.

Please note that healing and curing are two different concepts. Typically, the word curing means that the symptoms of a disease or illness are eradicated. While in some cases healing techniques may cure a person of disease or illness, the concept of healing really means bringing a sense of inner peace to someone's life, even in the face of death. From this vantage point you can see that a person can be healed and yet still be ill. In the age of high technology and instant gratification, expectations are often placed on the curing aspects—eradicating the symptomatic problems—rather than the ability to communicate them. Physical well-being is described as the optimal functioning of the body’s major physiological systems (e.g., cardiovascular, digestive, reproductive). From the observations documented in Selye’s research, as explained in his book The Stress of Life, the inability to return to homeostasis can prove fatal to various organ tissues and eventually to the host organism. Emotional well-being is defined as the ability to feel and express the full range of human emotions and to control these feelings, not be controlled by them. Anger and fear act as “umbrella” emotions that can collectively overload emotional circuits, resulting in mental paralysis and often leading to states of mental well-being: The ability to gather, process, recall, and communicate information.

Physical well-being: The optimal functioning of the body’s eight physiological systems (e.g., respiratory, skeletal).

Emotional well-being: The ability to feel and express the full range of human emotions and to control these feelings, not be controlled by them.

In a follow-up to his landmark study investigating the use of alternative medicine in the American culture, Eisenberg found that more than 42 percent of the American population used at least one form of complementary medicine in 1997, with an estimated $21.2 billion in out-of-pocket expenses paid to alternative health care practitioners. Eisenberg states that the magnitude of the demand for alternative therapy is noteworthy, in light of the poor reimbursement factor by insurance companies.

Let us take a closer look at the components of the wellness paradigm and the effects that stress has on them. Mental (intellectual) well-being is regarded as the ability to gather, process, recall, and exchange (communicate) information. Exposure to stress tends to overload the cognitive "circuits," decreasing the processing and recall abilities needed to make sound decisions as well as the ability to communicate them. Physical well-being is described as the optimal functioning of the body’s major physiological systems (e.g., cardiovascular, digestive, reproductive). From the observations documented in Selye’s research, as explained in his book The Stress of Life, the inability to return to homeostasis can prove fatal to various organ tissues and eventually to the host organism. Emotional well-being is defined as the ability to feel and express the full range of human emotions and to control them rather than be controlled by them. Anger and fear act as “umbrella” emotions that can collectively overload emotional circuits, resulting in mental paralysis and often leading to states of mental well-being: The ability to gather, process, recall, and communicate information.

Physical well-being: The optimal functioning of the body’s eight physiological systems (e.g., respiratory, skeletal).

Emotional well-being: The ability to feel and express the full range of human emotions and to control these feelings, not be controlled by them.

Two different approaches to the wellness paradigm. In Model A, expounded by Elisabeth Kübler-Ross, all components are present in the human organism, but each holds specific dominance at different phases of the individual’s growth cycle. The emotional aspect is the first to develop; the spiritual aspect is the last. In Model B each component is superimposed on the others in a holographic form, yet it is the spiritual component in which they are all contained.
depression. **Spiritual well-being** is described as the maturation of higher consciousness through strong nurturing relationships with both the self and others; the development of a strong personal value system; and a meaningful purpose in life. Stress can create a series of obstacles on the road to spiritual development, making the path to one’s higher self difficult, if not entirely inaccessible. Recently, scholars have included social well-being and environmental well-being as additional components of the wellness paradigm. Actually, what they have done is tease these aspects out of the mental, emotional, physical, or spiritual factors involved. If you take a closer look at the original four components, you will see that social well-being is a large factor of spiritual well-being. (This will be explained more clearly in Chapter 7.) And environmental well-being demonstrates how interwoven these four components really are, integrating aspects of physical and spiritual well-being. Although the major focus of this book is self-reliance—working from within to achieve inner peace—remember that our ability to harmonize with people within our collective environments is paramount to total well-being. Thus, from a holistic perspective, to effectively deal with stress, all areas of the wellness paradigm must be addressed and nurtured equally; the whole is always greater than the sum of the parts.

Not long ago (and in some cases today), many stress-management programs were based on the mechanistic model and focused solely on physical well-being. Upon initial recognition of the association between stress and disease, courses designed to intervene in this process emphasized techniques to decrease the physical symptoms of stress. These classes consisted primarily of teaching one or two relaxation techniques to help decrease the most obvious stress symptom: muscle tension. These techniques, addressing merely the symptoms (the physical component), did nothing to relieve the causes of stress (the mental, emotional, or spiritual components). As a result, people often experienced a rebound effect; their symptoms recurred. On a different front, coping techniques, addressing merely the symptoms (the physical component), did nothing to relieve the causes of stress as well as the physical symptoms. The primary focuses in the application of the wellness model are on the prevention of disease and illness and the enhancement of health. Furthermore, the underlying current of this empowering philosophy is to place the responsibility of healing back in the hands of the individual. Successful stress-management therapy programs have now begun to adopt the wellness philosophy and holistic approach, supporting the concept that the whole is indeed greater than the sum of the parts. A sound stress-management program does not attempt to merely reduce (fix or repair) stress but rather to manage it efficiently. This management process attempts to focus on all aspects of one’s well-being. This philosophy is implemented by attempting to both resolve the causes and reduce or eliminate the symptoms of stress. It is imperative to remember that, as an intervention modality, the wellness paradigm does not preclude the use of medications or surgery. Rather, it strongly suggests that there be a collaborative integration of several therapeutic techniques to produce the most effective healing process (e.g., chemotherapy and visualization). Equally important as preventive measures, coping skills and relaxation techniques are also advocated to maintain inner peace.

Stated simply, effective holistic stress management includes the following:

1. **Sound knowledge of the body’s reaction to perceived stress**
2. **Sound knowledge of mental, physical, emotional, and spiritual factors associated with stress**
3. **Utilization of several effective coping techniques to work toward a resolution of the causes of stress**
4. **Regular practice of relaxation techniques to maintain homeostatic balance of the body**
5. **Periodic evaluation of the effectiveness of coping skills and relaxation techniques**

Through the efforts of advocates of the wellness paradigm, attempts have been made to unite the practice of both relaxation skills and coping skills for a unique holistic approach to stress management. This implies viewing each person as more than just a physical body and dealing with the causes of stress as well as the physical symptoms. The primary focuses in the application of the wellness model are on the prevention of disease and illness and the enhancement of health. Furthermore, the underlying current of this empowering philosophy is to place the responsibility of healing back in the hands of the individual. Successful stress-management therapy programs have now begun to adopt the wellness philosophy and holistic approach, supporting the concept that the whole is indeed greater than the sum of the parts. A sound stress-management program does not attempt to merely reduce (fix or repair) stress but rather to manage it efficiently. This management process attempts to focus on all aspects of one’s well-being. This philosophy is implemented by attempting to both resolve the causes and reduce or eliminate the symptoms of stress. It is imperative to remember that, as an intervention modality, the wellness paradigm does not preclude the use of medications or surgery. Rather, it strongly suggests that there be a collaborative integration of several therapeutic techniques to produce the most effective healing process (e.g., chemotherapy and visualization). Equally important as preventive measures, coping skills and relaxation techniques are also advocated to maintain inner peace.

**Spiritual well-being:** The state of mature higher consciousness deriving from insightful relationships with oneself and others, a strong value system, and a meaningful purpose in life.
and emotional factors, outlining pertinent theoretical concepts of psychology: the stress emotions, anger and fear, as well as specific personality types that are thought to be either prone or resistant to stressful perceptions. (More cognitive aspects will be covered in Part 3.) The much-neglected component of spiritual well-being will round out the first half of the book, showcasing selected theories of this important human dimension and its significant relationship to stress. The remainder of the book will focus on a host of coping strategies and relaxation techniques, and come full circle to the physical realm of wellness again, with positive adaptations to stress promoted through the use of physical exercise. As you will surely find, true to the wellness paradigm, where all components are balanced and tightly integrated, there will be much overlap between the physical, mental, emotional, and spiritual factors in these chapters, as these factors are virtually inseparable. And just as the word stress was adopted from the discipline of physics, you will see that some other concepts and theories from this field are equally important to your ability to relax (e.g., entrainment). To understand the stress phenomenon accurately, it is important to see the human condition as one collective living system. Once this is understood, it becomes easier to manage stress effectively. It is my hope that the strategies in this book will enable you to access and enhance your inner resources, which in turn will enable you to design your own holistic stress-management program. As Selye stated in his popular book, Stress without Distress, “I cannot and should not be cured of my stress, but merely taught to enjoy it.” The enjoyment comes from the ability to manage stress effectively.
The advancement of technology, which promised more leisure time, has actually increased the pace of life so that many people feel stressed to keep up with this pace.

Lifestyles based on new technological conveniences are now thought to be associated with several diseases, including coronary heart disease and cancer.

Stress is a term from the field of physics, meaning physical force or tension placed on an object. It was adopted after World War II to signify psychological tension.

There are many definitions of stress from both Eastern and Western philosophies as well as several academic disciplines, including psychology and physiology. The mind-body separation is now giving way to a holistic philosophy involving the mental, physical, emotional, and spiritual components of well-being.

Cannon coined the term fight-or-flight response to describe the immediate effects of physical stress. This response is now considered by many to be inappropriate for nonphysical stressors.

There are three types of stress: eustress (good), neutress (neutral), and distress (bad). There are two types of distress: acute (short-term) and chronic (long-term), the latter of which is thought to be the more detrimental because the body does not return to a state of complete homeostasis.

Stressors have been categorized into three groups: (1) bioecological influences, (2) psychointrapersonal influences, and (3) social influences.

Holmes and Rahe created the Social Readjustment Rating Scale to identify major life stressors. They found that the incidence of stressors correlated with health status.

Selye coined the term general adaptation syndrome to explain the body’s ability to adapt negatively to chronic stress.

Females are not only wired for fight-or-flight, but also have a survival dynamic called “tend and befriend,” a specific nurturing aspect that promotes social support in stressful times.

The association between stress and insomnia is undeniable. The United States is said to be a sleep-deprived society, but techniques for stress management are proven effective to help promote a good night’s sleep, including physical exercise, biofeedback, yoga, and diaphragmatic breathing.

Stress can appear at any time in our lives, but the college years offer their own types of stressors because it is at this time that one assumes more (if not complete) responsibility for one’s lifestyle behaviors. Stress continues through retirement with a whole new set of stressors in the senior years.

The rapid pace of technology may appear to make life simpler, but experts agree that the fallout, called technostress, will take its toll by increasing demands on both time and money, and decreasing personal time.

Previous approaches to stress management have been based on the mechanistic model, which divided the mind and body into two separate entities. The paradigm on which this model was based is now shifting toward a holistic paradigm, where the whole is greater than the sum of the parts, and the whole person must be treated by working on the causes as well as the symptoms of stress.

Effective stress-management programming must address issues related to mental (intellectual), physical, emotional, and spiritual well-being.

**SUMMARY**

**STUDY GUIDE QUESTIONS**

1. How could you best define stress?
2. How does acute stress differ from chronic stress?
3. What is the general adaptation syndrome? List the stages.
4. Do men and women respond to stress in the same way? If not, how do their responses differ?
5. How does stress affect sleep? List as many ways as possible.
6. What is holistic stress management?
SELF-ASSESSMENT

There are hundreds of surveys and questionnaires designed to assess one’s level of stress. Most, if not all, of these are based on a mechanistic approach to health, not a holistic one (where the whole is considered greater than the sum of parts). The purpose of this self-assessment survey is to begin to have you look at your problems, issues, and concerns holistically.

1. Make a list of your current stressors and explain each one:
   1. 
   2. 
   3. 
   4. 
   5. 
   6. 
   7. 
   8. 
   9. 
   10. 

2. From the list you have just made, reorganize it into acute (short-term) stressors and chronic (prolonged) stressors.

   **Acute (lasting several minutes to hours)**
   1. 
   2. 
   3. 
   4. 
   5. 

   **Chronic (lasting days, weeks, or months)**
   1. 
   2. 
   3. 
   4. 
   5. 

3. From the first list you made, determine whether each stressor is mental, physical, emotional, or spiritual.

   **Mental**
   Overwhelmed/bored
   1. 
   2. 
   3. 
   4. 
   5. 

   **Physical**
   Injuries/sickness
   1. 
   2. 
   3. 
   4. 
   5. 

   **Emotional**
   Anger or fear based
   1. 
   2. 
   3. 
   4. 
   5. 

   **Spiritual**
   Relationships/values/purpose in life
   1. 
   2. 
   3. 
   4. 
   5.
SELF-ASSESSMENT

Poor Sleep Habits Questionnaire

Take a moment to answer these questions based on your typical behavior. If you feel your sleep quality is compromised, consider that one or more of these factors may contribute to patterns of insomnia by affecting your physiology, circadian rhythms, or emotional thought processing. Although there is no key to determine your degree of insomnia, each question is based on specific factors associated with either a good night’s sleep or the lack of it. Use each question to help you fine-tune your sleep hygiene.

1. Do you go to bed at about the same time every night? Yes No
2. Does it take you more than thirty minutes to fall asleep once in bed? Yes No
3. Do you wake up at about the same time every day? Yes No
4. Do you drink coffee, tea, or caffeinated soda after 6 P.M.? Yes No
5. Do you watch television from your bed? Yes No
6. Do you perform cardiovascular exercise three to five times per week? Yes No
7. Do you use your bed as your office (e.g., to do homework, balance checkbook, write letters)? Yes No
8. Do you take a hot shower or bath before you go to sleep? Yes No
9. Do you have one or more drinks of alcohol before bedtime? Yes No
10. Are you engaged in intense mental activity before bed (e.g., term papers, exams, projects, reports, finances, taxes)? Yes No
11. Is your bedroom typically warm or even hot before you go to bed? Yes No
12. Does your sleep partner snore, become restless, and so on, in the night? Yes No
13. Is the size and comfort level of your bed satisfactory? Yes No
14. Do you suffer from chronic pain while laying down? Yes No
15. Is your sleep environment compromised by noise, light, or pets? Yes No
16. Do you frequently take naps during the course of a day? Yes No
17. Do you take medications (e.g., decongestants, steroids, antihypertensives, asthma medications, or medications for depression)? Yes No
18. Do you tend to suffer from depression? Yes No
19. Do you eat a large heavy meal right before you go to bed? Yes No
20. Do you use a cell phone regularly, particularly in the evening? Yes No
SELF-ASSESSMENT

Are You Stressed?

Although there is no definitive survey composed of twenty questions to determine whether if you are stressed or burnt out, or just exactly how stressed you really are, questionnaires do help increase awareness that, indeed, there may be a problem in one or more areas of your life. The following is an example of a simple stress inventory to help you determine the level of stress in your life. Read each statement and circle either “Agree” or “Disagree.” Then count the number of “Agree” points (one per question) and use the stress level key to determine your personal stress level.

1. I have a hard time falling asleep at night. Agree Disagree
2. I tend to suffer from tension and/or migraine headaches. Agree Disagree
3. I find myself thinking about finances and making ends meet. Agree Disagree
4. I wish I could find more to laugh and smile about each day. Agree Disagree
5. More often than not, I skip breakfast or lunch to get things done. Agree Disagree
6. If I could change my job situation, I would. Agree Disagree
7. I wish I had more personal time for leisure pursuits. Agree Disagree
8. I have lost a good friend or family member recently. Agree Disagree
9. I am unhappy in my relationship or am recently divorced. Agree Disagree
10. I haven’t had a quality vacation in a long time. Agree Disagree
11. I wish that my life had a clear meaning and purpose. Agree Disagree
12. I tend to eat more than three meals a week outside the home. Agree Disagree
13. I tend to suffer from chronic pain. Agree Disagree
14. I don’t have a strong group of friends to whom I can turn. Agree Disagree
15. I don’t exercise regularly (more than three times per week). Agree Disagree
16. I am on prescribed medication for depression. Agree Disagree
17. My sex life is not very satisfying. Agree Disagree
18. My family relationships are less than desirable. Agree Disagree
19. Overall, my self-esteem is rather low. Agree Disagree
20. I spend no time each day dedicated to meditation or centering. Agree Disagree

Stress Level Key

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 points</td>
<td>You have a low level of stress and maintain good coping skills.</td>
</tr>
<tr>
<td>More than 5 points</td>
<td>You have a moderate level of personal stress.</td>
</tr>
<tr>
<td>More than 10 points</td>
<td>You have a high level of personal stress.</td>
</tr>
<tr>
<td>More than 15 points</td>
<td>You have an exceptionally high level of stress.</td>
</tr>
</tbody>
</table>
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