An Invitation to Health: Build Your Future

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15TH EDITION
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After studying the material in this chapter, you should be able to

- Distinguish between the five categories of stress.
- Compare and contrast the biological and nonbiological theories of stress.
- Define stress and stressors, and describe how the body responds to stress according to the general adaptation syndrome theory.
- Discuss how stress can affect the cardiovascular, immune, endocrine, neurological, reproductive, and digestive systems.
- Identify stressors that are commonly reported by college students.
- Evaluate the stress management techniques discussed in the text to determine which ones would work best for you.
- Explain how stressful events can affect psychological health and describe factors contributing to posttraumatic stress disorder.
Getting laid off felt like a punch in the stomach. Chayla had heard the rumors about all part-time positions being eliminated. But her boss always said she was the best assistant they had ever hired. And now she was fired—with tuition, rent, and insurance bills all due in a month. And so in between writing papers and preparing for finals, Chayla would have to look for another job. Just thinking about all she had to do made her head throb.

Personal Stress Management

Like Chayla, you live with stress every day, whether you’re studying for exams, meeting people, facing new experiences, or figuring out how to live on a budget. You’re not alone. College students rank stress as the top impediment to their academic performance. Everyone, regardless of age, gender, race, or income, has to deal with stress—as an individual and as a member of society.

As researchers have demonstrated time and again, stress has profound effects, both immediate and long-term, on our bodies and minds. While stress alone doesn’t cause disease, it triggers molecular changes throughout the body that make us more susceptible to many illnesses. Its impact on the mind is no less significant. The burden of chronic stress can undermine one’s ability to cope with day-to-day hassles and can exacerbate psychological problems like depression and anxiety disorders.

Yet stress in itself isn’t necessarily bad. What matters most is not the stressful situation itself, but an individual’s response to it. This chapter will help you learn to anticipate stressful events, to manage day-to-day hassles, to prevent stress overload, and to find alternatives to running endlessly on a treadmill of alarm, panic, and exhaustion. As you organize your schedule, find ways to release tension, and build up coping skills, you will begin to experience the sense of control and confidence that makes stress a challenge rather than an ordeal.

What Is Stress?

People use the word stress in different ways: as an external force that causes a person to become tense or upset, as the internal state of arousal, and as the physical response of the body to various demands. Dr. Hans Selye, a pioneer in studying physiological responses to challenge, defined stress as “the nonspecific response of the body to any demand made upon it.” In other words, the body reacts to stressors—the things that upset or excite us—in the same way, regardless of whether they are positive or negative.
Building Your Future

eustress Positive stress, which stimulates a person to function properly.

distress A negative stress that may result in illness.

Based on nearly 300 studies over four decades, researchers have distinguished five categories of stressors:

- **Acute time-limited stressors** include anxiety-provoking situations such as having to give a talk in public or work out a math problem, such as calculating a tip or dividing a bill, under pressure.

- **Brief naturalistic stressors** are more serious challenges such as taking SATs or meeting a deadline for a big project.

- **Stressful event sequences** are the difficult consequences of a natural disaster or another traumatic occurrence, such as the death of a spouse. The individuals involved recognize that these difficulties will end at some point in the future.

- **Chronic stressors** are ongoing demands caused by life-changing circumstances, such as permanent disability following an accident or caregiving for a parent with dementia, that do not have any clear end point.

- **Distant stressors** are traumatic experiences that occurred long ago, such as child abuse or combat, yet continue to have an emotional and psychological impact.

Not all stressors are negative. Some of life’s happiest moments—births, reunions, weddings—are enormously stressful. We weep with the stress of frustration or loss; we weep, too, with the stress of love and joy. Selye coined the term eustress for positive stress in our lives (eu is a Greek prefix meaning “good”). Eustress challenges us to grow, adapt, and find creative solutions in our lives. Distress refers to the negative effects of stress that can deplete or even destroy life energy. Ideally, the level of stress in our lives should be just high enough to motivate us to satisfy our needs and not so high that it interferes with our ability to reach our fullest potential.

What Causes Stress?

The scientific study of stress began more than a century ago. Over the years scientists have formulated various theories about the nature of stress. Some place greater emphasis on physiological aspects; others, on psychological and social dimensions. The following are among the most influential.
The General Adaptation Syndrome

Of the many biological theories of stress, the best known may be the general adaptation syndrome (GAS), developed by Hans Selye. He postulated that our bodies constantly strive to maintain a stable and consistent physiological state, called homeostasis. Stressors, whether in the form of physical illness or a demanding job, disturb this state and trigger a nonspecific physiological response. The body attempts to restore homeostasis by means of an adaptive response.

Selye’s general adaptation syndrome, which describes the body’s response to a stressor—whether threatening or exhilarating—consists of three distinct stages:

1. **Alarm.** When a stressor first occurs, the body responds with changes that temporarily lower resistance. Levels of certain hormones may rise; blood pressure may increase (Figure 4.1). The body quickly makes internal adjustments to cope with the stressor and return to normal activity.

2. **Resistance.** If the stressor continues, the body mobilizes its internal resources to try to sustain homeostasis. For example, if a loved one is seriously hurt in an accident, we initially respond intensely and feel great anxiety. During the subsequent stressful period of recuperation, we struggle to carry on as normally as possible, but this requires considerable effort.

3. **Exhaustion.** If the stress continues long enough, we cannot keep up our normal functioning. Even a small amount of additional stress at this point can cause a breakdown.

Cognitive-Transactional Model

Among the nonbiological theories is the cognitive-transactional model of stress, developed by Richard Lazarus, which looks at the relation between stress and health. As he sees it, stress can have a powerful impact on health. Conversely, health can affect a person’s resistance or coping ability. Stress, according to Lazarus, is “neither an environmental stimulus, a characteristic of the person, nor a response, but a relationship between demands and the power to deal with them without unreasonable or destructive costs.”

Thus, an event may be stressful for one person but not for another, or it may seem stressful on one occasion but not on another. For instance, one student may think of speaking in front of the class as extremely stressful, while another relishes the chance to do so—except on days when he’s not well prepared.

At any age, some of us are more vulnerable to life changes and crises than are others. The stress of growing up in families troubled by alcoholism, drug dependence, or physical, sexual, or psychological abuse may have a lifelong impact and make people more vulnerable to disease and premature death. Other early experiences, positive and negative, also can affect our attitude toward stress—and our resilience to it.

“Perceived” stress—an individual’s view of how challenging life is—undermines a sense of well-being in people of all ages and circumstances. However, good self-esteem, social support, and internal resources buffer the impact of perceived stress.

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Figure 4.1 General Adaptation Syndrome (GAS)
The three stages of Selye’s GAS are alarm, resistance, and exhaustion.

Our level of ongoing stress affects our ability to respond to a new day’s stressors. Each of us has a breaking point for dealing with stress. A series of too-intense pressures or too-rapid changes can push us closer and closer to that point. That’s why it’s important to anticipate potential stressors and plan how to deal with them.

The Life Events Model

Stress experts Thomas Holmes, M.D., and Richard Rahe, M.D., devised a scale to evaluate individual levels of stress and potential for coping, based on life-change units that estimate each change’s impact. The death of a partner or parent ranks high on the list, but even changing apartments is considered a stressor. People who accumulate more than 300 life-change units in a year are more likely to suffer serious health problems. Scores on the scale, however, represent “potential stress”; the actual impact of the life change depends on the individual’s response and coping skills. (See Self Survey: “Student Stress Scale,” on page 112.)

If you score high on the Student Stress Scale, think about the reasons your life has been in such turmoil. Of course, some events, such as your or your parents’ divorce or a friend’s accident, are beyond your control. Even then, you can respond in ways that may protect you from disease.

The Diathesis Stress Model

The diathesis stress model is a psychological theory that explains behavior as a result of both nature (biological factors such as genetics) and nurture (early life experiences). Originally developed to explain the causes of psychiatric disorders such as schizophrenia, this model has stimulated research on the impact of many common stressors.

According to this model, particular stressors have different effects on different people because individuals vary in their vulnerabilities or predispositions—called diatheses—to psychological problems and mental disorders. Biological and psychological factors, including genetics, put certain people at greater risk but do not in themselves trigger illness. Interaction with stressful life events (whether social, psychological, or biological) must occur to precipitate symptoms.

The greater one’s inherent vulnerability, the less environmental stress is required to cause problems. In someone with a diathesis for depression, for instance, a job layoff, a breakup, or even normal milestones such as puberty can be powerful enough to create depressive symptoms. Similar events might not faze other individuals that much. Research is continuing on identifying hidden or latent diatheses and developing protective strategies in times of stress.

Stress and Physical Health

These days we’ve grown accustomed to warning labels advising us of the health risks of substances like alcohol and cigarettes. Medical researchers speculate that another component of twenty-first-century living also warrants a warning: stress. In recent years, an ever-growing number of studies has implicated stress as a culprit in a range of medical problems. While stress itself may not kill, it clearly undermines our ability to stay well.

While stress alone doesn’t cause disease, it triggers molecular changes throughout the body that make us more susceptible to many illnesses. Severe emotional distress—whether caused by a divorce, the loss of a job, or caring for an ill child or parent—can have such a powerful effect on the DNA in body cells that it speeds up aging, adding the equivalent of a decade to biological age.

This occurs because of a shortening of structures called telomeres in the chromosomes of cells. An enzyme called telomerase maintains these structures but declines with age. Every time a cell divides, which is a continuous process, the telomeres shorten. The shorter your telomeres, the more likely you are to die.

Stress also triggers complex changes in the body’s endocrine, or hormone-secreting, system. When you confront a stressor, the adrenal glands, two triangle-shaped glands that sit atop the kidneys, respond by producing stress hormones, including catecholamines, cortisol (hydrocortisone), and epinephrine (adrenaline), that speed up heart rate and raise blood pressure and prepare the body to deal with the threat.
This “fight-or-flight” response prepares you for quick action: Your heart works harder to pump more blood to your legs and arms. Your muscles tense, your breathing quickens, and your brain becomes extra alert. Because it’s nonessential in a crisis, your digestive system practically shuts down.

Figure 4.2 illustrates how persistent or repeated increases in the stress hormones can be hazardous throughout the body. Prolonged or severe stress can damage the brain’s ability to remember and can actually cause brain cells, or neurons, to atrophy and die. Recent research has implicated stress in both contributing to the development of cancer and reducing the effectiveness of cancer treatment.

The Impact of Cortisol

Psychosocial stress is a recognized risk factor for cardiorespiratory disease. In particular, three negative emotions—anxiety, anger, and depression—increase the risk of heart problems, and chronic exposure to stress hormones, including cortisol and aldosterone, may be the reason why.5

Cortisol speeds the conversion of proteins and fats into carbohydrates, the body’s basic fuel, so we have the energy to fight or flee from a threat. However, stress increases the amount of time required to clear triglycerides, a type of fat linked to heart disease, from the bloodstream.

Cortisol can cause excessive central or abdominal fat, which heightens the risk of diseases such as diabetes, high blood pressure, and stroke. Even slender, premenopausal women faced with increased stress and lacking good coping skills are more likely to accumulate excess weight around their waists, thereby increasing their risk of heart disease and other health problems.

Numerous studies have linked cortisol, which seems to increase most in the face of uncontrollable and socially threatening stressors, with harmful changes in the heart, liver, and kidney. Cortisol also has been tied to the development

Figure 4.2 The Effects of Stress on the Body

- **Brain becomes more alert.**
  - Stress hormones can affect memory and cause neurons to atrophy and die
  - Headaches, anxiety, and depression
  - Disrupted sleep

- **Digestive system slows down.**
  - Mouth ulcers or cold sores

- **Heart rate increases and blood pressure rises.**
  - Persistently elevated blood pressure and heart rate can increase potential for blood clotting and risk of stroke or heart attack.
  - Weakening of the heart muscle and symptoms that mimic a heart attack

- **Adrenal glands produce stress hormones.**
  - Cortisol and other stress hormones can increase central or abdominal fat.
  - Cortisol increases glucose production in the liver, causing renal hypertension.

- **Skin problems such as eczema and psoriasis**

- **Breathing quickens.**
  - Increased susceptibility to colds and respiratory infections

- **Immune system is depressed.**
  - Increased susceptibility to infection
  - Slower healing

- **Digestive system slows down.**
  - Upset stomach

- **Reproductive system**
  - Menstrual disorders in women
  - Impotence and premature ejaculation in men

- **Muscles tense.**
  - Muscular twitches or nervous tics
of metabolic syndrome and diabetes (both discussed in Chapter 9).

**Stress and the Heart**

The links between stress, behavior, and the heart are complex. Scientists continue to explore the impact of acute and chronic stress, gender, race, and socioeconomic status.\(^6\) One way in which stress increases the risk of heart attack and other cardiovascular problems is by pushing people toward bad habits. In a study that followed about 6,500 men and women for seven years, those with the highest stress levels smoked more and exercised less—and had a 50 percent higher rate of heart attacks, strokes, and bypass surgeries.\(^7\)

Chronic stress, whether because of finances, a demanding job, racial discrimination, or marital problems, can contribute to hypertension (discussed in depth in Chapter 15). Ruminating—mulling over stressful events or upsetting thoughts—may be the mechanism that elevates blood pressure even hours or days after a stressful occurrence. The relaxation technique that has proven most effective in reducing blood pressure is meditation (discussed later in this chapter).\(^8\)

Stressed individuals may be at increased risk because of overeating, coevolution of cortisol and insulin, and suppression of other hormones, all of which contribute to greater abdominal or visceral fat. As discussed in Chapter 7, “belly” fat is particularly dangerous because of its role in systemic inflammation, which can contribute to cardiovascular disease.\(^9\)

Stress may be the most significant inherited risk factor in people who develop heart disease at a young age. According to behavioral researchers, family transmission of emotional and psychosocial stress, specifically anger in males, greatly increases the likelihood of early heart disease.\(^10\)

In the 1970s, cardiologists Meyer Friedman, M.D., and Ray Rosenman, M.D., compared their patients to individuals of the same age with healthy hearts and developed two general categories of personality: Type A and Type B. Hardworking, aggressive, and competitive, Type As never have time for all they want to accomplish, even though they usually try to do several tasks at once. Type Bs are more relaxed, though not necessarily less ambitious or successful.

The degree of danger associated with Type-A behavior remains controversial. Of all the personality traits linked with Type-A behavior, the most sinister are anger and chronic hostility. People who are always mistrustful, cynical, and suspicious are twice as likely to suffer blockages of their coronary arteries. Social isolation, depression, and stress may be even stronger risk factors for men.

**Stress and Immunity**

The immune system is the network of organs, tissues, and white blood cells that defend against disease. Impaired immunity makes the body more susceptible to many diseases, including infections (from the common cold to tuberculosis) and disorders of the immune system itself. In the short term, stress “revs up” the immune system, a way of preparing for injury or infection. Acute time-limited stressors, the type that produce a fight-or-flight response, prompt the immune system to ready itself for the possibility of infections resulting from bites, punctures, or other wounds.

However, long-term, or chronic, stress creates excessive wear and tear, and the system breaks down. Chronic stressors, so profound and persistent that they seem endless and beyond a person’s control, suppress immune responses the most.\(^11\) The longer the stress, the more the immune system shifts from potentially adaptive changes to potentially harmful ones, first in cellular immunity and then in broader immune function. Traumatic stress, such as losing a loved one through death or divorce, can impair immunity for as long as a year.

Even minor hassles that aren’t related to trauma take a toll. Under exam stress, students experience a dip in immune function and a higher rate of infections. Researchers have documented a significant drop in the immune cells that normally ward off infection and cancer in medical students during exams.

Because of sex-linked differences in the immune system, women may have a more potent response to stressors, which increases their risk of stress-related disorders, such as anxiety and depression, and of autoimmune or allergic disorders, such as rheumatoid arthritis, multiple sclerosis, and asthma.\(^12\) (See Chapter 16 for a discussion of immune disorders.)
Age and overall health also affect immune response. The immune systems of individuals who are elderly or ill are more vulnerable to acute and chronic stressors, possibly because their bodies find it more difficult to regulate their reactions. However, stress intensifies the symptoms and lowers the quality of life even for young adults with asthma and other chronic conditions.

**Other Stress Symptoms**

The first signs of stress include muscle tightness, tension headaches, backaches, upset stomach, and sleep disruptions (caused by stress-altered brain-wave activity). Some people feel fatigued, their hearts may race or beat faster than usual at rest, and they may feel tense all the time, easily frustrated, and often irritable. Others feel sad; lose their energy, appetite, or sex drive; and develop psychological problems, including depression, anxiety, and panic attacks.

Stress also is closely linked to skin conditions. If you break out the week before an exam, you know firsthand that skin can be extremely sensitive to stress. Skin conditions worsened by stress include acne, psoriasis, herpes, hives, and eczema. With acne, increased touching of the face, perhaps while cramming for a test, may be partly responsible. Other factors, such as temperature, humidity, and cosmetics and toiletries, may also play a role.

**Stress and Digestion**

Do you ever get butterflies in your stomach before giving a speech in class or before a big game? The digestive system is, as one psychologist quips, “an important stop on the tension trail.”

Stress can lead to poor food choices, and can affect the way the body responds to unhealthy foods, which might lead to weight gain. No studies have ever demonstrated that stress alone causes ulcers, but it may make people more vulnerable to infection with *Helicobacter pylori* bacteria, a known culprit in many cases. To avoid problems, pay attention to how you eat. Eating on the run, gulping food, or overeating results in poorly chewed foods, an overworked stomach, and increased abdominal pressure.

Some simple strategies can help you avoid stress-related stomachaches. Many people experience dry mouth or sweat more under stress. By drinking plenty of water, you replenish lost fluids and prevent dehydration. Fiber-rich foods counteract common stress-related problems, such as cramps and constipation. Do not skip meals. If you do, you’re more likely to feel fatigued and irritable.

Be wary of overeating under stress. Some people eat more because they scarf down meals too quickly. Others reach for snacks to calm their nerves or comfort themselves. Watch out for caffeine. Coffee, tea, and cola drinks can make your strained nerves jangle even more. Research on laboratory animals suggests that eating sweets and other “comfort foods,” even in small amounts, may alter brain chemistry and reduce stress. However, don’t have more than a few bites. Sugary snacks will send your blood sugar levels on a roller coaster ride—up one minute, down the next.

**Stress on Campus**

Being a student—full-time or part-time, in your late teens, early twenties, or later in life—can be extremely stressful. You may feel pressure to perform well to qualify for a good job or graduate school. To meet steep tuition payments, you may have to juggle part-time work and coursework. You may feel stressed about choosing a major, getting along with a difficult roommate, passing a particularly hard course, or living up to your parents’ and teachers’ expectations. If you’re an older student, you may have children, jobs, housework, and homework to balance. Your days may seem so busy and your life so full that you worry about coming apart at the seams.

In the American College Health Association’s national survey, about nine in ten students rate the overall level of stress they experienced in the previous 12 months as “average,” “more than average,” or “tremendous.” (See “How Do You Compare? Stressed Out on Campus.”) Common stressors reported by students around the world include test pressures; financial problems; frustrations, such as delays in reaching
第一代大学生也较少会披露或分享他们的经历，因为他们的家人和朋友可能无法理解与大学相关的压力。这种缺乏社会支持本身就会增加他们的压力水平。19

父母和可能祖父母上过大学的学生可能有几项优势：更多了解大学生活，得到更多的社会支持，更早做好大学的准备，更有目的的参加大学活动，以及更多的经济资源。

### Coping with Test Stress

对于许多学生来说，期中考试和期末考试是今年最紧张的时期。各所学院和大学的调查发现，期末考试期间感冒和流感的发病率会升高。一些学生会以其他方式感受到考试压力——头痛，消化不良，皮肤发炎，或者失眠。

由于压力对记忆的影响，技能较强的学生可能在考试压力下表现比技能较弱的同伴更差。有时，学生会过于担心考试失败而无法集中精力学习。其他人，包括许多最优秀的学生，在考试中会“卡壳”，无法理解多项选择题。

### Students under Stress

大学带来了成长和变化——既令人向往又必要，但常常充满压力。从高中到大学的过渡挑战着年轻人独立生活，管理财务，维持学术标准，并适应新生活。他们过去的角色，比如活在动儿子或女儿，会改变，而他们需要承担新的角色，比如室友和大学生。除了重大负面事件，比如失业或分手，日常的小麻烦也会增加学生的压力。在典型的一个大学学期中，大约一半的大学生报告有高水平的压力。18

(See “How Do You Compare?”)

第一代大学生——那些父母从未经历过至少一年大学生活的学生——在社会适应方面遇到更多困难。19

### Coping with Test Stress

很多学生，期中考试和期末考试都是压力最大的时间段。在不同学院和大学的调查发现，感冒和流感的发病率会升高。有些学生会以其他方式感受到考试压力——头痛，消化不良，皮肤发炎，或者失眠。

由于压力对记忆的影响，技能较强的学生可能在考试压力下表现比技能较弱的同伴更差。有时，学生会过于担心考试失败而无法集中精力学习。其他人，包括许多最优秀的学生，在考试中会“卡壳”，无法理解多项选择题。
Can you do anything to reduce test stress and feel more in control? Absolutely. (See “Defusing Test Stress” in the Labs for IPC.) One way is through relaxation. Students taught relaxation techniques—such as controlled breathing, meditation, progressive relaxation, and guided imagery (visualization)—a month before finals tend to have higher levels of immune cells during the exam period and feel in better control during their tests.

How Students Respond

Students say they react to stress in various ways: physiologically (by sweating, stuttering, trembling, or developing physical symptoms); emotionally (by becoming anxious, fearful, angry, guilty, or depressed); behaviorally (by crying, eating, smoking, being irritable or abusive); or cognitively (by thinking about and analyzing stressful situations and strategies that might be useful in dealing with them).

Researchers have categorized students’ coping strategies as either problem-focused (involving behavioral activities, such as planning and taking action) or emotion-focused (involving expression of feelings). In general, problem-focused strategies are associated with better outcomes, such as better health and greater sense of well-being. Emotion-focused strategies, particularly trying to avoid the problem or difficult situation, are associated with poorer health and more negative feelings. Both female and male undergraduates tend to use more emotion-focused than problem-focused strategies.

Students under stress may engage in behaviors that can harm their health, including smoking, excess drinking, and substance abuse. They’re also more prone to night-eating, which can lead to excess weight. Students’ stress responses may reflect their personality characteristics and coping styles.

In a recent study, students under stress who typically devote themselves to supporting others often do not reach out to take advantage of the support available to them, while students who focus solely on their own achievements and needs do not have a support network to turn to when stressed. Both are likely to engage in risky sexual behaviors, such as unsafe sex practices or having sex with more partners than usual.
Learning how to cope better with the problems of daily living can reduce student stress and its possible toll. “Problem-solving therapy,” a psychological approach that focuses on training in constructive problem-solving attitudes and skills, teaches practical principles, such as reframing a stressful situation as a challenge rather than a difficulty, avoiding impulsive reactions, confronting issues directly, and seeking alternative solutions.\textsuperscript{24}

In a national poll, three-quarters of students said they turn to friends when stressed; nearly two-thirds, to their parents; and half to siblings. About a quarter of the survey participants said they had considered talking to a counselor or another professional; just 15 percent had actually done so. Only one in seven undergraduates said they were familiar with the counseling offered at their schools.\textsuperscript{25}

### Gender Differences

College women consistently report more stress than college men—at least for some stressors. In a recent study, college women reported greater stress for finances, financial relationships, social relationships, and daily hassle. Among community college students, stress significantly affected the grade point averages of women, although attachment to and support from others moderated its effects.\textsuperscript{26}

The immune and hormonal systems of men and women may respond differently to stressors. In psychological experiments men under stress display higher aggression (for example, delivering more shocks to another volunteer) than do women.

Gender differences in lifestyle also may explain why women feel so stressed. College men spend significantly more time doing things that are fun and relaxing: exercising, partying, watching TV, and playing video games. Women, on the other hand, tend to study more, do more volunteer work, and handle more household and child-care chores.

Coping strategies also vary by gender. College men are more likely to disengage by using alcohol. College women report more emotion-focused strategies, such as expressing feelings, seeking emotional support, denial, and positive reframing. They’re also more prone to avoid dealing with a problem directly and to taking impulsive measures. Acquiring better problem-solving skills can help in dealing both with daily hassles and with larger stressors.\textsuperscript{27}

At all ages, women and men tend to respond to stress differently. While males (human and those of other species) react with the classic fight-or-flight response, females under attack try to protect their children and seek help from other females—a strategy dubbed \textit{tend and befriend}. When exposed to experimental stress (such as a loud, harsh noise), women show more affection for friends and relatives; men show less. When working mothers studied by psychologists had a bad day, they coped by concentrating on their children when they got home. Stressed-out fathers were more likely to withdraw.

### Minority Students under Stress

Regardless of your race or ethnic background, college may bring culture shock. You may never have encountered such a degree of diversity in one setting. You probably will meet students with different values, unfamiliar customs, entirely new ways of looking at the world—experiences you may find both stimulating and stressful.

Minority students may face a greater stress burden because of the demands of \textit{acculturation}, a complex psychosocial process in which an ethnic minority changes, both as individuals and as a group, as a consequence of contact with the ethnic majority. Minority students often confront widespread stereotypes—for instance, that Asian Americans are quiet and passive or that Latinos entered the country illegally. Such racist attitudes can affect students’ sense of individual and collective self-esteem. In a recent study, both Asian and black undergraduates reported more frequent experiences of discrimination and perceived the campus racial climate as more negative than white students.\textsuperscript{28}

Acculturative stress has been linked to various psychological symptoms in African American, Asian, and Hispanic college students. In both African American and European American undergraduates, for instance, acculturative stress...
Racism and Discrimination  Racism has indeed been shown to be a source of stress that can affect health and well-being. In the past, some African American students have described predominantly white campuses as hostile, alienating, and socially isolating and have reported greater estrangement from the campus community and heightened estrangement in interactions with faculty and peers. However, the generalization that all minority students are more stressed may not be valid. Some coping mechanisms, especially spirituality, can buffer the negative effects of racism.30

All minority students do share some common stressors. In one study of minority freshmen entering a large, competitive university, Asian, Filipino, African American, and Native American students all felt more sensitive and vulnerable to the college social climate, to interpersonal tensions between themselves and nonminority students and faculty, to experiences of actual or perceived racism, and to racist attitudes and discrimination. Despite scoring above the national average on the SAT, the minority students in this study did not feel accepted as legitimate students and sensed that others viewed them as unworthy beneficiaries of affirmative action initiatives. While most said that overt racism was rare and relatively easy to deal with, they reported subtle pressures that undermined their academic confidence and their ability to bond with the university. Balancing these stressors, however, was a strong sense of ethnic identity, which helped buffer some stressful effects.

Other Stressors  African American students at historically black colleges identified their top five sources of stress as:

- Important decisions about education.
- Respect of peers for what you have to say.
- Too many things to do at once.
- A lot of responsibilities.
- Financial burdens.

Women scored higher than men in feeling stressed about having too many things to do at once, being separated from people they care about, financial burdens, and important decisions about their education.31

Hispanic students have identified three major types of stressors in their college experiences: academic (related to exam preparation and faculty interaction), social (related to ethnicity and interpersonal competence), and financial (related to their economic situation). Some students who recently immigrated to the United States report feeling ostracized by students of similar ancestry who are second- or third-generation Americans.

African American women may develop chronic illnesses at an earlier age because of their lifetime exposure to social and economic stressors. Chronic powerlessness and anger, researchers speculate, may explain why more African American than white women—47 percent compared with 35 percent—are affected by cardiovascular disease.32

Colleges Respond  Because racism and discrimination can be hard to deal with individually, they are particularly sinister forms of stress. By banding together, however, those who experience discrimination can take action to protect themselves, challenge the ignorance and hateful assumptions that fuel bigotry, and promote a healthier environment for all.
Economic Stress

With the recent economic slump, millions of Americans have confronted a serious new stressor: unemployment. Workers who are laid off must deal with multiple losses: the loss of a job; the possible loss of the financial ability to support themselves; the loss of self-respect, security, and a daily routine; and—for some people—the loss of identity.34

Even those whose jobs seem secure may feel anxious. As their coworkers depart, many of those who remain feel “survivor’s guilt.” According to surveys by the American Psychological Association, nearly half of Americans say they are more stressed than a year ago. One-third rate their stress level as “extreme.”35

In the last decade, there have been reports of increased intolerance among young people and greater tolerance of expressions and acts of hate on college campuses. To counteract this trend, many schools have set up programs and classes to educate students about each other’s backgrounds and to acknowledge and celebrate the richness diversity brings to campus life. Educators have called on universities to make campuses less alienating and more culturally and emotionally accessible, with programs and policies targeted not only at minority students but also at the university as a whole.

Some schools have taken a more lighthearted approach. In addition to extra counseling and extended library hours, they are offering stress-busting experiences, such as laser tag, petting zoos (with bunnies and puppies at California’s Claremont University Consortium), karaoke parties, and miniature golf. Does your school or student government offer anything similar? Do you think such activities can reduce stress overload?33

Other Personal Stressors

At every stage of life, you will encounter challenges and stressors. Among the most common are those related to money, anger, work, and illness. (See Health on a Budget, p. 101.)
and low on patience, and the less patience they have, the less they monitor their behavior.

**Getting a Grip** For years therapists encouraged people to “vent” their anger. However, research now shows that letting anger out only makes it worse. “Catharsis is worse than useless,” says psychology professor Brad Bushman of Iowa State University, whose research has shown that letting anger out makes people more aggressive, not less. “Many people think of anger as the psychological equivalent of the steam in a pressure cooker that has to be released or it will explode. That’s not true. People who react by hitting, kicking, screaming, and swearing aren’t dealing with the underlying cause of their anger. They just feel more angry.”

Over time, temper tantrums sabotage physical health as well as psychological equanimity. By churning out stress hormones, chronic anger revs the body into a state of combat readiness, multiplying the risk for stroke and heart attack—even in healthy individuals.

To deal with anger, you have to figure out what’s really making you mad. Usually the jammed soda machine is the final straw that unleashes bottled-up fury over a more difficult issue, such as a recent breakup or a domineering parent or boss. Also monitor yourself for early signs of exhaustion and overload. While stress alone doesn’t cause a blowup, it makes you more vulnerable to overreacting. (See “Taming a Toxic Temper” in *Labs for IPC.*

**Job Stress**

More so than ever, many people find that they are working more and enjoying it less. Many people, including working parents, spend 55 to 60 hours a week on the job. More people are caught up in an exhausting cycle of overwork, which causes stress, which makes work harder, which leads to more stress. Even the workplace itself can contribute to stress. A noisy, open-office environment can increase levels of stress without workers realizing it.

High job strain—defined as high psychological demands combined with low control or decision-making ability over one’s job—may increase blood pressure, particularly among men. People who become obsessed by their work and careers can turn into workaholics, so caught up in racing toward the top that they forget what they’re racing toward and why. In some cases they throw themselves into their work to mask or avoid painful feelings or difficulties in their own lives.

**Burnout** Burnout is a state of physical, emotional, and mental exhaustion brought on by constant or repeated emotional pressure. No one—regardless of age, gender, or job—is immune. Mothers and managers, firefighters and flight attendants, teachers and telemarketers feel the flames of too much stress and not enough satisfaction. Many people, especially those caring for others at work or at home, get to a point where there’s an imbalance between their own feelings and dealing with difficult, distressful issues on a day-to-day basis. If they don’t recognize what’s going on and make some changes, their health and the quality of their work suffer.

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**Health on a Budget**

**How to Handle Economic Stress**

Whether or not you have a job—or lost one—the recent economic downturn has probably affected you or those close to you. But as always, what matters most isn’t how stressful circumstances may be, but how you react to them:

- **Pause but don’t panic.** Pay attention to what’s happening around you, but refrain from getting caught up in doom-and-gloom hype, which can lead to high levels of anxiety and bad decision making.
- **Avoid the tendency to overreact or to become passive.** Remain calm and stay focused.
- **Identify your financial stressors and make a plan.** Although this can be anxiety-provoking in the short term, putting things down on paper can reduce stress. Write down specific ways you can reduce expenses or manage your finances more efficiently.
- **If you are having trouble paying bills or staying on top of debt, reach out for help by calling your bank or credit card company.** Credit counseling services and financial planners can help you take control over your money situation.
- **Recognize how you deal with stress related to money.** In tough economic times some people turn to unhealthy activities like smoking, drinking, gambling, or emotional eating. If these behaviors are causing you trouble, seek help from a campus counselor before the problem gets worse.

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*Adapted from materials from the American Psychological Association.*
When the problem is more serious or persistent—a chronic disease like diabetes, for instance, or a lifelong hearing impairment—the emotional stress of constantly coping with it is even greater. A common source of stress for college students is a learning disability, which may affect one of every ten Americans. Most people with learning disabilities have average or above-average intelligence, but they rarely live up to their ability in school. Some have only one area of difficulty, such as reading or math. Others have problems with attention, writing, communicating, reasoning, coordination, and social skills.

Not all students with learning disabilities experience greater stress. In one in-depth study comparing 34 undergraduates with and without learning disabilities, the students with learning disabilities (LD) reported significantly fewer college stressors and demonstrated a higher need for achievement. The LD students also scored significantly higher in resiliency and initiative in solving problems and working toward goals.

Illness and Disability

Just as the mind can have profound effects on the body, the body can have an enormous impact on our emotions. Whenever we come down with the flu or pull a muscle, we feel under par. When the problem is more serious or persistent—a chronic disease like diabetes, for instance, or a lifelong hearing impairment—the emotional stress of constantly coping with it is even greater.

Early signs of burnout include exhaustion; sleep problems or nightmares; increased anxiety or nervousness; muscular tension (headaches, backaches, and the like); increased use of alcohol or medication; digestive problems (such as nausea, vomiting, or diarrhea); loss of interest in sex; frequent body aches or pain; quarrels with family or friends; negative feelings about everything; problems concentrating; job mistakes and accidents; and feelings of depression, hopelessness, or helplessness.

Societal Stressors

Many college students, faced with ongoing wars in Iraq and continued threat of terrorist attacks, find that they now feel uncertain about a future...
for which they had just begun to plan. Some may be concerned about parents, relatives, or friends who are in the military or living overseas. Others may wonder how they, themselves, may become directly involved in this crisis. Students who live away from home may have a more difficult time coping without the reassurance of having family nearby.

The deliberate use of physical force to abuse or injure is a leading killer of young people in the United States—and a potential source of stress in all our lives. If you or someone you know has been a victim of a violent crime, a sense of vulnerability may add to the stress of daily living. See Your Strategies for Change on page 108 and “Your Guardian Angel” in Labs for IPC.

Psychological Responses to Stress

It may be tempting to look for a “quick fix” for stress. (See Consumer Alert, p. 105.) Sometimes we respond to stress or challenge with self-destructive behaviors, such as drinking or using drugs. These responses can lead to psychological problems, such as anxiety or depression, and physical problems, including psychosomatic illnesses.

Defense Mechanisms

Defense mechanisms, such as those described in Table 4.1, are another response to stress. These psychological devices are mental processes that help us cope with personal problems. Such responses also are not the answer to stress—and learning to recognize them in yourself will enable you to deal with your stress in a healthier way.

Cognitive Restructuring

Every day about 60,000 thoughts pass through our brains as we plan, evaluate, judge, interpret, and remember. Some of these thoughts are as precise as a mathematical equation, but others are misleading or inappropriate. These inaccurate or self-defeating thoughts are the target of cognitive-behavioral therapy (CBT), a highly effective psychological treatment described in Chapter 3.

Cognitive restructuring, one of the techniques of CBT, can reduce stress by helping people examine unhappy, negative thoughts that are making them anxious, challenging these thoughts, and in many cases rewriting the negative thinking that lies behind them. Because thoughts create feelings and drive behavior, this approach enables people to approach stressful situations in a positive frame of mind.

The first step is becoming aware of automatic thoughts that enter your brain, such as “I will never understand this material,” “I’m going to flunk this test,” or “No one wants to talk with me.” Then you challenge these negative assumptions with counterarguments such as “I felt the same way in chemistry class, and eventually I figured it out,” “If I focus on the questions I do know, I’ll be okay,” or “I can try smiling and striking up a conversation.” You can also develop specific action techniques to blunt negative thoughts and lessen stress. For instance, you could master some of the relaxation and test-taking techniques described in this chapter and in Labs for IPC.

Table 4.1 Common Defense Mechanisms Used to Alleviate Anxiety and Eliminate Conflict

<table>
<thead>
<tr>
<th>Defense Mechanism</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denial: the refusal to accept a painful reality</td>
<td>You don’t accept as true the news that a loved one is seriously ill.</td>
</tr>
<tr>
<td>Displacement: the redirection of feelings from their true object to a more acceptable or safer substitute</td>
<td>Instead of lashing out at a coach or teacher, you snap at your best friend.</td>
</tr>
<tr>
<td>Projection: the attribution of unacceptable feelings or impulses to someone else</td>
<td>When you want to end a relationship, you project your unhappiness onto your partner.</td>
</tr>
<tr>
<td>Rationalization: the substitution of “good,” acceptable reasons for the real motivations of our behavior</td>
<td>You report a classmate who has been mean for cheating on an exam and explain that cheating is unfair to other students.</td>
</tr>
<tr>
<td>Reaction formation: adopting attitudes and behaviors that are the opposite of what we feel</td>
<td>You lavishly compliment an acquaintance whom you really despise.</td>
</tr>
<tr>
<td>Repression: the way we keep threatening impulses, fantasies, memories, feelings, or wishes from becoming conscious</td>
<td>You don’t “hear” the alarm after the late night, or you “forget” to take out the trash.</td>
</tr>
</tbody>
</table>
Managing Stress

College is a perfect time to learn and practice the art of stress reduction. You can start applying the techniques and concepts outlined in this chapter immediately. You may want to begin by doing some relaxation or awareness exercises. They can give you the peace of mind you need to focus more effectively on larger issues, goals, and decisions.

You needn’t see stress as a problem to solve on your own. Reach out to others. As you build friendships and intimate relationships, you may find that some irritating problems are easier to put into perspective. Don’t be afraid to laugh at yourself and to look for the comic or absurd aspects of a situation.

If you feel yourself tensing up and don’t have time for a longer relaxation technique, try these simple stress-busters:

- **Toe tensing.** Lie down, point your toes back toward your face, and hold for ten seconds. Relax your feet, and repeat several times.
- **Quiet ears.** Stop whatever you’re doing. Lie down or sit back, and block your ear canals with your thumbs. Hold this position for 10 to 15 seconds. Close your eyes, and clear your mind.

Journaling

One of the simplest, yet most effective, ways to work through stress is by putting your feelings into words that only you will read. The more honest and open you are as you write, the better. (See “Health in Action: Write It Out!”)

College students who wrote in their journals about traumatic events felt much better afterward than those who wrote about superficial topics. Focus on intense emotional experiences and “autopsy” them to try to understand why they affected you the way they did. Rereading and thinking about your notes may reveal the underlying reasons for your response. See the chapter on “Power Journaling” in IPC.

Exercise

Regular physical activity can relieve stress, boost energy, lift mood, and keep stress under control. Young adults who adopt and continue regular aerobic exercise show less intense cardiovascular responses to stress, which may protect them against coronary heart disease as they age. Strength training may have similar benefits.

Various studies have examined the correlation between physical activity and stress in college students. Students who report higher levels of leisure-time exercise, along with a good social network and time management skills, generally enjoy better mental health. Other researchers have found that active students report as much stress as inactive ones. Try an experiment with yourself: Keep track of the days when you work out in some way and those you don’t. Rate your stress level every day, and see if exercise makes a difference for you.

Routes to Relaxation

Relaxation is the physical and mental state opposite that of stress. Rather than gearing up for fight or flight, our bodies and minds grow calmer and work more smoothly. We’re less likely to become frazzled and more capable of staying in control. A growing number of studies has confirmed the benefits of relaxation techniques. Although they differ in many ways, the various approaches may alter brain chemistry in fundamental ways, such as increasing the levels of pleasure-inducing chemicals in the brain.

(See “Rx: Relax” in the Labs for IPC.)

**Progressive relaxation** works by intentionally increasing and then decreasing tension in the muscles. While sitting or lying down in a quiet, comfortable setting, you tense and release various muscles, beginning with those of the hand, for instance, and then proceeding to the arms, shoulders, neck, face, scalp, chest, stomach, buttocks, genitals, and so on, down each leg to the toes. Relaxing the muscles can quiet the mind and restore internal balance.

**Visualization, or guided imagery,** involves creating mental pictures that calm you down and focus your mind. Some people use this technique to promote healing when they are ill. Visualization skills require practice and, in some cases, instruction by qualified health professionals.

**Biofeedback** is a method of obtaining feedback, or information, about some physiological
Stress Scams
Aromatic candles. Gurgling fountains. Squeezable foam balls. Incense burners. Soothing gels. Everywhere you turn you can find something that promises to relieve stress. Do they work? Most don’t cause any harm, but they don’t necessarily do much good either.

Facts to Know
• “Natural” products, such as herbs and enzymes, claim to have psychological effects. However, because they are not classified as drugs, these products have not undergone the rigorous scientific testing required of psychiatric medications, and little is known about their safety or efficacy. “Natural” doesn’t mean risk-free. Opium and cocaine are “natural” substances that have dramatic and potentially deadly effects on the mind.
• Don’t make matters worse by smoking (the chemicals in cigarettes increase heart rate, blood pressure, and stress hormones), consuming too much caffeine (it speeds up your system for hours), eating snacks high in sugar (it produces a quick high followed by a sudden slump), or turning to drugs or alcohol (they can only add to your stress when their effects wear off).

Steps to Take
• Be wary of instant cures. Regardless of the promises on the label, it’s unrealistic to expect any magic ingredient or product to make all your problems disappear.
• Focus on stress-reducing behavior, rather than a product. An aromatic candle may not bring instant serenity, but if you light a candle and meditate, you may indeed feel more at peace.
• Experiment with physical ways to work out stress. Exercise is one of the best ways to lower your stress levels. Try walking, running, swimming, cycling, kickboxing—anything physical that helps you release tension.

Meditation and Mindfulness
Meditation has been practiced in many forms over the ages, from the yogic techniques of the Far East to the Quaker silence of more modern times. Brain scans have shown that meditation activates the sections of the brain in charge of the autonomic nervous system, which governs bodily functions, such as digestion and blood pressure, that we cannot consciously control. Research with a group of Tibetan monks and lay practitioners with extensive experience in meditation has demonstrated that meditation produces changes in various regions of the brain and can actually cause people to be more compassionate.42

Although many studies have documented the benefits of meditation for overall health, it may be particularly helpful for people dealing with stress-related medical conditions such as high blood pressure and heart problems, and for preventing stress-induced changes in the immune system.43 (See Figure 4.3.)

Meditation helps a person reach a state of relaxation, but with the goal of achieving inner peace and harmony. There is no one right way to meditate, and many people have discovered how to meditate on their own, without even knowing what it is they are doing.

Increasing numbers of college students are turning to meditation as a way of coping with stress. Most forms of meditation have common elements: sitting quietly for 15 to 20 minutes once or twice a day, concentrating on a word or image, and breathing slowly and rhythmically. If activity occurring in the body. An electronic monitoring device attached to the body detects a change in an internal function and communicates it back to the person through a tone, light, or meter. By paying attention to this feedback, most people can gain some control over functions previously thought to be beyond conscious control, such as body temperature, heart rate, muscle tension, and brain waves.

The goal of biofeedback for stress reduction is a state of tranquility, usually associated with the brain’s production of alpha waves (which are slower and more regular than normal waking waves).
In a study with college students, those who enrolled in movement-based classes, such as Pilates and Gyrokinesis, demonstrated increases in specific aspects of mindfulness, such as acting with awareness and observing sensations and perceptions. These increases were associated with better sleep, improved mood, and lower sense of stress.46

Mindfulness-Based Stress Reduction, a group program that focuses on progressive acquisition of mindful awareness, has been used for patients with a wide variety of health problems as well as in healthy people coping with daily stress. Researchers have documented benefits for individuals suffering from chronic pain, fibromyalgia, cancer, anxiety disorders, depression, and the stresses of everything from prison life to medical school.47

Yoga

An estimated 14.9 million Americans practice yoga, which has been defined as a union of mind, body, and spirit (discussed in Chapter 8). In addition to easing conditions such as lower-back pain, migraine, asthma, and hypertension, yoga has proven to reduce anxiety and cortisol levels in those with moderate levels of stress.48 Compared with other forms of exercise, yoga has a greater positive impact on mood and anxiety, possibly because it increases antidepressant neurotransmitters (messenger chemicals) in the brain.49

Yoga practitioners, in a study that compared them with undergraduates, reported engaging in more healthy behaviors, such as exercising regularly, than the students. They also were more likely to express their spirituality and undertake new experiences to enhance their spiritual health.50

Yoga may lower harmful compounds associated with stress that increase inflammation. In a recent study, “expert” yoga practitioners, with a year or two of yoga practice, had lower levels of markers of chronic inflammation than novices. Yoga may be beneficial because it increases flexibility and allows relaxation, which can lower stress.51

Figure 4.3  Benefits of Meditation

Meditation

- Reduces activation of the sympathetic nervous system—which, in turn, dilates the blood vessels and reduces stress hormones, such as adrenaline, noradrenaline, and cortisol.
- Reduces high blood pressure and use of hypertension medications
- Reduces atherosclerosis
- Reduces constriction of blood vessels
- Reduces thickening of coronary arteries
- Reduces mortality rates
- Slows aging
- Reduces hospitalization rates
- Decreases medical care utilization and hospitalization
- Increases creativity
- Improves memory
- Increases intelligence
- Decreases anxiety
- Reduces alcohol abuse
- Increases productivity

In a recent study, regular practice of Transcendental Meditation reduced sleepiness in college students and improved their alertness and brain functioning. Undergraduates who began meditating during the first week of the term were less tired and more resistant to the stress of finals than others.44

Mindfulness is a modern form of an ancient Asian technique that involves maintaining awareness in the present moment. Some define it as “paying attention in a particular way, on purpose, in the present moment, and nonjudgmentally.”45

In mindful meditation, you tune in to each part of your body, scanning from head to toe, noting the slightest sensation. You allow whatever you experience—an itch, an ache, a feeling of warmth—to enter your awareness. Then you open yourself to focus on all the thoughts, sensations, sounds, and feelings that enter your awareness. Mindfulness keeps you in the here and now, thinking about what is rather than about what if or if only.
Traumatic Life Events and Stress

Bad things happen. Cars crash. Close friends and relatives die. Floods, tornadoes, and earthquakes wreak havoc on communities. Armed students shoot senselessly at classmates and professors. According to epidemiological studies, about half of all people experience at least one potentially traumatic event—natural or man-made, large-scale or small—during the course of their lives. As profoundly disturbing as such experiences can be, recent research has shown that after a trauma the vast majority of people, including children, cope well, continue to meet the demands of their daily lives, and recover fully.

Traumatic experiences, as one researcher puts it, are like the common cold, “experienced at some time by nearly all.” In a recent study of college women, nine in ten reported having directly experienced at least one traumatic event, usually involving a threat to their own lives or to others. The most frequently reported trauma was a motor vehicle accident.

Many people develop a temporary “acute stress reaction,” characterized by symptoms such as reexperiencing the trauma, avoiding certain places or situations, and feeling a sense of arousal or hypersensitivity. But just as the common cold can lead to pneumonia and other serious complications, traumatic experiences can provoke more serious reactions in about 20 to 30 percent of trauma survivors. Of these, about half recover over time even without treatment.

Common responses to crisis include the following:

- Disbelief and shock
- Disorientation; difficulty making decisions or concentrating
- Inability to focus on schoolwork and extracurricular activities
- Apathy and emotional numbing
- Sadness and depression
- Fear and anxiety about the future
- Intrusive thoughts; replaying events in our minds
- Excessive worry about safety and vulnerability; feeling powerless
- Crying for “no apparent reason”
- Irritability and anger
- Headaches and stomach problems
- Difficulty sleeping
- Extreme changes in eating patterns; loss of appetite or overeating
- Excessive use of alcohol or drugs

Posttraumatic Stress Disorder (PTSD)

In the past, posttraumatic stress disorder (PTSD) was viewed as a psychological response to out-of-the-ordinary stressors, such as captivity or combat. However, other experiences can also forever change the way people view themselves and their world. Individuals with PTSD often suffer cognitive impairments, including memory problems.

An estimated 7.7 million American adults have PTSD. PTSD is twice as common in women as in men. Women are most vulnerable between the ages of 44 and 51, while men are more prone to PTSD from ages 41 to 45. Childhood traumas occur equally in both sexes. Adult men encounter more traumas—accidents, violence, combat, terrorism, disasters, injuries—than adult women. Women experience more sexual assaults and abuse. PTSD is especially high in women who have served in the military. Sexual trauma ranks as the most distressing for female veterans, followed by physical assault and war zone experience.

An estimated 4 to 17 percent of veterans of combat in Iraq and Afghanistan develop PTSD, along with other problems such as substance abuse. Many have experienced high-intensity guerilla warfare as well as the chronic threat of roadside bombs and improvised explosive devices; some have suffered traumatic brain injuries. In the long term, veterans with PTSD face an increased chance of developing metabolic syndrome and coronary heart disease and of exhibiting greater risk-taking behavior.

Some people may be especially vulnerable to PTSD. Scientists have identified certain genes that increase susceptibility. Exposure to
traumatic experience in childhood along with poverty, difficult temperament, and low IQ also increase the risk.

PTSD can cause a range of symptoms, including fear, worry, insomnia, and drug and alcohol abuse (particularly in those with a history of alcohol abuse and those who drink to cope with stress).61 Some individuals reexperience their terror and helplessness again and again in their dreams or intrusive thoughts. To avoid this psychic pain, they may try to avoid anything associated with the trauma. Some enter a state of emotional numbness and no longer can respond to people and experiences the way they once did, especially when it comes to showing tenderness or affection. Those who’ve been mugged or raped may be afraid to venture out by themselves.

Mental health professionals have found that no single approach to treatment works for all trauma victims. Some approaches, such as immediate “debriefing” to release emotions or treatment with anxiety-reducing medications, may not help and may even hinder long-term recovery.62 But behavioral, cognitive, and psychodynamic therapy, sometimes along with psychiatric medication (described in Chapter 3), can usually help individuals suffering with PTSD.

Resilience

Adversity—whether in the form of a traumatic event or chronic stress—has different effects on individuals. Some people never recover and continue on a downward slide that may ultimately prove fatal. Others return, though at different rates, to their prior level of functioning. In recent years researchers have focused their attention on a particularly intriguing group: those people who not only survive stressful experiences but also thrive—that is, who actually surpass their previous level of functioning. See the chapter on “Shock Absorption” in IPC.

Resilience can take many forms. A father whose child is kidnapped and killed may become a nationwide advocate for victims’ rights. A student whose roommate dies in a car crash after a party may campaign for tougher laws against drunk driving. A couple whose premature baby spends weeks in a neonatal intensive care unit may find that their marriage has grown closer and stronger. Even though their experiences were painful, the individuals often look back at them as bringing positive changes into their lives.63

Researchers have studied various factors that enable individuals to thrive in the face of adversity. These include:

• **An optimistic attitude.** Rather than reacting to a stressor simply as a threat, these men and women view stress as a challenge—one they believe they can and will overcome. Researchers have documented that individuals facing various stressors, including serious illness and bereavement, are more likely to

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**Your Strategies for Change**

**How to Cope with Distress after a Trauma**

Senseless acts of violence or terrorism can trigger a variety of emotions, including shock, sorrow, fear, anger, and grief. You may have problems sleeping, concentrating, or going about simple chores. Because the world seems more dangerous, it may take a while for you to regain your sense of equilibrium. The following recommendations from the American Psychological Association can help.

• **Talk about it.** Ask for support from people who will listen to your concerns. It often helps to speak with others who have shared your experience so you do not feel so different or alone.

• **Strive for balance.** Remind yourself of people and events that are meaningful and comforting, even encouraging.

• **Take a break.** While you may want to keep informed, limit your exposure to news on television, the Internet, newspapers, or magazines. Schedule breaks to focus on something you enjoy.

• **Take care of yourself.** Engage in healthy behaviors, such as exercise, that will enhance your ability to cope. Avoid alcohol and drugs because they can suppress your feelings rather than help you to manage your distress.

• **Help others or do something productive.** Try volunteering at your school or within your community. Helping someone else often helps you feel better too.
more interested in spiritual pursuits. Certain kinds of stressful experiences also have social consequences. If a person experiencing a traumatic event finds that the significant others in his or her life can be counted on, the result can be a strengthening of their relationship.

Organizing Your Time

We live in what some sociologists call hyperculture, a society that moves at warp speed. Information bombards us constantly. The rate of change seems to accelerate every year. Our “time-saving” devices—pagers, cell phones, modems, faxes, palm-size organizers, laptop computers—have simply extended the boundaries of where and how we work.

As a result, more and more people are suffering from “timesickness,” a nerve-racking feeling that life has become little more than an endless to-do list. The best antidote is time management, and hundreds of books, seminars, and experts offer training in making the most of the hours in the day. Yet these well-intentioned methods often fail, and sooner or later most of us find ourselves caught in a time trap. (See the chapter on “Time Control” in IPC.)

Are You Running Out of Time?

Every day you make dozens of decisions, and the choices you make about how to use your time directly affect your stress level. If you have a big test on Monday and a term paper due Tuesday, you may plan to study all weekend. Then, when you’re invited to a party Saturday night, you go. Although you set the alarm for 7:00 a.m. on Sunday, you don’t pull yourself out of bed until noon. By the time you start studying, it’s 4:00 p.m., and anxiety is building inside you.

How can you tell if you’ve lost control of your time? The following are telltale symptoms of poor time management:

- Rushing.
- Chronic inability to make choices or decisions.
- Fatigue or listlessness.

Individuals who engage in proactive coping, a concept based on the principles of positive psychology discussed in Chapter 2, perceive stressful situations as challenges instead of threats. In a study of college women who had experienced traumas, those who saw these events as learning experiences and who felt gratitude for what they had learned reported posttraumatic emotional growth, rather than distress, in the form of increased strength, confidence, and maturity.

Along with new abilities comes the psychological sense of mastery. “I survived this,” an individual may say. “I’ll be able to deal with other hard things in the future.” Such confidence keeps people actively engaged in the effort to cope and is itself a predictor of eventual success. Stress also can make individuals more aware of the fulfilling aspects of life, and they may become more interested in spiritual pursuits. Certain kinds of stressful experiences also have social consequences. If a person experiencing a traumatic event finds that the significant others in his or her life can be counted on, the result can be a strengthening of their relationship.
Your own notes will be more helpful than a friend’s or those from a note-taking service. Read your lecture notes at the end of each day or at least at the end of each week.

**Develop an efficient study style.** Some experts recommend studying for 50 minutes, then breaking for 10 minutes. Small incentives, such as allowing yourself to call or visit a friend during those 10 minutes, can provide the motivation to keep you at the books longer. When you’re reading, don’t just highlight passages. Instead, write notes or questions to yourself in the margins, which will help you retain more information. Even if you’re racing to start a paper, take a few extra minutes to prepare a workable outline. It will be easier to structure your paper when you start writing.

**Focus on the task at hand.** Rather than worrying about how you did on yesterday’s test or how you’ll ever finish next week’s project, focus intently on whatever you’re doing at any given moment. If your mind starts to wander, use any distraction—the sound of the phone ringing or a noise from the hall—as a reminder to stay in the moment.

**Turn elephants into hors d’oeuvres.** Cut a huge task into smaller chunks so it seems less enormous. For instance, break down your term paper into a series of steps, such as selecting a topic, identifying sources of research information, taking notes, developing an outline, and so on.

**Keep your workspace in order.** Even if the rest of your room is a shambles, try to keep your desk clear. Piles of papers are distracting, and you can end up wasting lots of time looking for notes you misplaced or an article you have to read by morning. Try to spend the last ten minutes of the day getting your desk in order so you get a fresh start on the new day.

**Overcoming Procrastination**

Putting off until tomorrow what should be done today is a habit that creates a great deal of stress for many students. In various studies, 30 to 60 percent of undergraduates have reported postponing academic tasks, such as studying...
for exams, writing papers, and reading weekly assignments, so often that their performance and grades suffered. Occasional delay becomes a more serious problem when it triggers internal discomfort, such as anxiety, irritation, regret, despair, and self-blame, as well as external consequences, such as poor performance and lost opportunities.

In studies with students taking a health psychology course, researchers found that although procrastinating provided short-term benefits, including periods of low stress, the tendency to dawdle had long-term costs, including poorer health and lower grades. Early in the semester, the procrastinators reported less stress and fewer health problems than students who scored low on procrastination. However, by the end of the semester, procrastinators reported more health-related symptoms, more stress, and more visits to health-care professionals than did nonprocrastinators. Students who procrastinate also get poorer grades in courses with many deadlines.

In one recent study, older undergraduates were more prone to put off academic tasks than younger ones. The reasons, the researchers speculate, may be that the longer that students remain in school, the less enthusiasm they feel or the more entrenched bad study habits become. They also may have more family and work-related commitments that take priority over their studies.

The three most common types of procrastination are putting off unpleasant things, putting off difficult tasks, and putting off tough decisions. Procrastinators are most likely to delay by wishing they didn’t have to do what they must or by telling themselves they “just can’t get started,” which means they never do.

To get out of the procrastination trap, keep track of the tasks you’re most likely to put off, and try to figure out why you don’t want to tackle them. Think of alternative ways to get tasks done. If you put off library readings, for instance, is the problem getting to the library or the reading itself? If it’s the trip to the library, arrange to walk over with a friend whose company you enjoy.

Do what you like least first. Once you have it out of the way, you can concentrate on the tasks you enjoy. Build time into your schedule for interruptions, unforeseen problems, and unexpected events, so you aren’t constantly racing around. Establish ground rules for meeting your own needs (including getting enough sleep and making time for friends) before saying yes to any activity. Learn to live according to a three-word motto: Just do it! (See “Do It Now!” in Making Change Happen and in Labs for IPC.)
Avoiding Stress Overload

Some life stressors are sudden and dramatic. More often, stress builds steadily over time and you may not realize the toll it is taking on your mind and body. Read through the list of warning signs below, and check any that apply to you.

___ You are experiencing physical symptoms, including chronic fatigue, headaches, indigestion, diarrhea, and sleep problems.
___ You are having frequent illness or worrying about illness.
___ You are self-medicating, including nonprescription drugs.
___ You are having problems concentrating on studies or work.
___ You are feeling irritable, anxious, or apathetic.
___ You are working or studying longer and harder than usual.
___ You are exaggerating, to yourself and others, the importance of what you do.
___ You are becoming accident-prone.

___ You are breaking rules, whether it’s a curfew at the dorm or a speed limit on the highway.
___ You are going to extremes, such as drinking too much, overspending, or gambling.

Awareness of stress overload is the first step. For practical help in lowering your stress levels, read through “Rx: Relax,” “Your Psychological Self-Care Pyramid,” and “Help Yourself” in Labs for IPC. Choose one to complete.

If stress continues to be a problem in your life, you may be able to find help through support groups or counseling. Your school may provide counseling services or referrals to mental health professionals; ask your health instructor or the campus health department for this information. Remember that each day of distress robs you of energy, distracts you from life’s pleasures, and interferes with achieving your full potential.

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Self Survey

Student Stress Scale

The Student Stress Scale, an adaptation of Holmes and Rahe’s Life Events Scale for college-age adults, provides a rough indication of stress levels and possible health consequences.

In the Student Stress Scale, each event, such as beginning or ending school, is given a score that represents the amount of readjustment a person has to make as a result of the change. In some studies, using similar scales, people with serious illnesses have been found to have high scores.

To determine your stress score, add up the number of points corresponding to the events you have experienced in the past 12 months.

1. Death of a close family member 100
2. Death of a close friend 73
3. Divorce of parents 65
4. Jail term 63
5. Major personal injury or illness 63
6. Marriage 58
7. Getting fired from a job 50
8. Failing an important course 47
9. Change in the health of a family member 45
10. Pregnancy 45
11. Sex problems 44
12. Serious argument with a close friend 40
13. Change in financial status 39
14. Change of academic major 39
15. Trouble with parents 39
16. New girlfriend or boyfriend 37
17. Increase in workload at school 37
18. Outstanding personal achievement 36
19. First quarter/semester in college 36
20. Change in living conditions 31
21. Serious argument with an instructor 30
22. Getting lower grades than expected 29
23. Change in sleeping habits 29
Personal Stress Management

Do It Now!

Chronic procrastination can trip you up, slow you down, stress you out, and sabotage your best efforts. You know that. But you may not realize that procrastination isn’t a character flaw. All delay stems from a certain degree of fear—fear of failure, fear of success, fear of not being in control. People who procrastinate simply haven’t yet developed good habits for getting work done, or they have bad habits they need to unlearn and replace. “Do It Now” in Labs for IPC will show you how to do both. Here’s a preview.

Get Real

In this section you get a clear fix on when and how you procrastinate by checking yes for each of ten statements that describe your behavior, including these three examples:

• I put off studying subjects I find difficult.
• I put off studying subjects I find easy because I don’t think they will demand much time.
• I wait to have a big block of time before starting a project.

The more checks, the greater your problem with procrastination.

Get Ready

At this stage you set aside time for various exercises, including writing refutations of excuses you have used for procrastinating and keeping a simple chart of dates assignments are given and dates they are due for each class.

Get Going

In this stage you engage in seven exercises, each designed to preempt procrastination. Here are two examples:

• Complete the incompletes. Every day find one thing that you began at some point but have not yet finished. It might be making the bed, replying to an e-mail, buying a birthday card for your grandfather, replacing the bulb in your bedside lamp . . .
• Eavesdrop on your excuses. Every time you balk at writing the first sentence of a report or reading the first page of the assigned novel, stop and listen to what you’re telling yourself. Here are three of the excuses you’re likely to hear:

  • I’m too tired. I’ll rest first.
  • There’s no point in starting. I’ve got to meet my friend Ravi in ten minutes.
  • “Why do it on Friday? The instructor won’t get it until Monday.”

Write rebuttals to yourself. For instance, you might say, “Yes, I’m tired. I’ll just work for half an hour, and then I’ll go to bed.” Or you might tell yourself, “I’ll see how much I can get done in ten minutes.”

Lock It In

Keep doing the exercises, including completing your incompletes. Don’t let a day go by when you don’t cross something off your to-do list—even if it’s making a to-do list.

24. Change in social activities 29
25. Change in eating habits 28
26. Chronic car trouble 26
27. Change in number of family get-togethers 26
28. Too many missed classes 25
29. Changing colleges 24
30. Dropping more than one class 23
31. Minor traffic violations 20

Total Stress Score ______

Here’s how to interpret your score: If your score is 300 or higher, you’re at high risk for developing a health problem. If your score is between 150 and 300, you have a 50–50 chance of experiencing a serious health change within two years. If your score is below 150, you have a one in three chance of a serious health change.

Review Questions

1. In this text we define stress as
   a. a negative emotional state related to fatigue and similar to depression.
   b. the physiological and psychological response to any event or situation that either upsets or excites us.
   c. the end result of the general adaptation syndrome.
   d. a motivational strategy for making life changes.

2. Which of the following illustrates the defense mechanism of displacement?
   a. You have a beer in the evening after a tough day.
   b. You act as if nothing has happened after you have been laid off from your job.
   c. You start an argument with your sister after being laid off from your job.
   d. You argue with your boss after he lays you off from your job.

3. An effective technique for dealing with test stress is
   a. planning ahead.
   b. going on a study blitz the night before the test.
   c. going out for a few beers with friends the night before the test.
   d. talking with friends about everything but the test.

4. A person suffering from posttraumatic stress disorder may experience which of the following symptoms?
   a. procrastination
   b. constant thirst
   c. drowsiness
   d. terror-filled dreams

5. According to the general adaptation syndrome theory, how does the body typically respond to an acute stressor?
   a. The heart rate slows, blood pressure declines, and eye movement increases.
   b. The body enters a physical state called eustress and then moves into the physical state referred to as distress.
   c. If the stressor is viewed as a positive event, there are no physical changes.
   d. The body demonstrates three stages of change: alarm, resistance, and exhaustion.

6. Burnout is
   a. the aftermath of extreme anger triggered by stress.
   b. a feeling of complete defeat.
   c. the feeling that comes after a long evening of partying.
   d. a state of exhaustion brought on by constant or repeated emotional pressure.

7. To develop an efficient studying style:
   a. Schedule your study time on a calendar or planner, have a friend go to class and take notes for you, and join the chess club.
   b. Schedule your study time on a calendar or planner, write notes or questions about the material in the margins of the book, and give yourself a small break after every study hour.
   c. Read assignments before class, call a friend before studying, and plan on working for four continuous hours.
   d. Read assignments before class, skip class when studying for an exam, and have snacks on hand.

8. Over time, increased levels of stress hormones have been shown to increase a person’s risk for which of the following conditions?
   a. high blood pressure, memory loss, and skin disorders
   b. stress fractures, male pattern baldness, and hypothyroidism
   c. hemophilia, AIDS, and hay fever
   d. none of the above

9. A relaxed peaceful state of being can be achieved with which of the following activities?
   a. an aerobic exercise class
   b. playing a computer game
   c. meditating for 15 minutes
   d. attending a rap concert

10. Stress levels in college students
    a. may be high due to stressors such as academic pressures, financial concerns, learning disabilities, and relationship problems.
    b. are usually low because students feel empowered living independently of their parents.
    c. are typically highest in seniors because their self-esteem diminishes during the college years.
    d. are lower in minority students because they are used to stressors such as a hostile social climate and actual or perceived discrimination.

Answers to these questions can be found on page 672.
Critical Thinking

1. Identify three stressful situations in your life and determine whether they are examples of eustress or distress. Describe both the positive and negative aspects of each situation.

2. Can you think of any ways in which your behavior or attitudes might create stress for others? What changes could you make to avoid doing so?

3. What advice might you give an incoming freshman at your school about managing stress in college? What techniques have been most helpful for you in dealing with stress? Suppose that this student is from a different ethnic group than you. What additional suggestions would you have for this student?

Media Menu

Visit www.cengagebrain.com to access course materials and companion resources for this text that will:

• Help you evaluate your knowledge of the material.
• Allow you to prepare for exams with interactive quizzing.
• Use the CengageNOW product to develop a Personalized Learning Plan targeting resources that address areas you should study.

Internet Connections

www.teachhealth.com
This comprehensive website is written specifically for college students by Steven Burns, M.D. It features the following topics: signs of how to recognize stress, two stress surveys for adults and college students, information on the pathophysiology of stress, the genetics of stress and stress tolerance, and information on how to best manage and treat stress.

www.mindtools.com/smpage.html
This site covers a variety of topics on stress management, including recognizing stress, exercise, time management, coping mechanisms, and more. The site also features a free comprehensive personal self-assessment with questions pertaining to work and home stressors, physical and behavioral signs and symptoms, as well as personal coping skills and resources.

Key Terms

The terms listed are used on the page indicated. Definitions of the terms are in the Glossary at the end of the book.

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Chapter 4

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