

## Chapter 3

# Managing Stress

### Section 1

What Causes Stress?

### Section 2

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Your Body

### Section 3

Stress and Individuals

### Building Health Skills

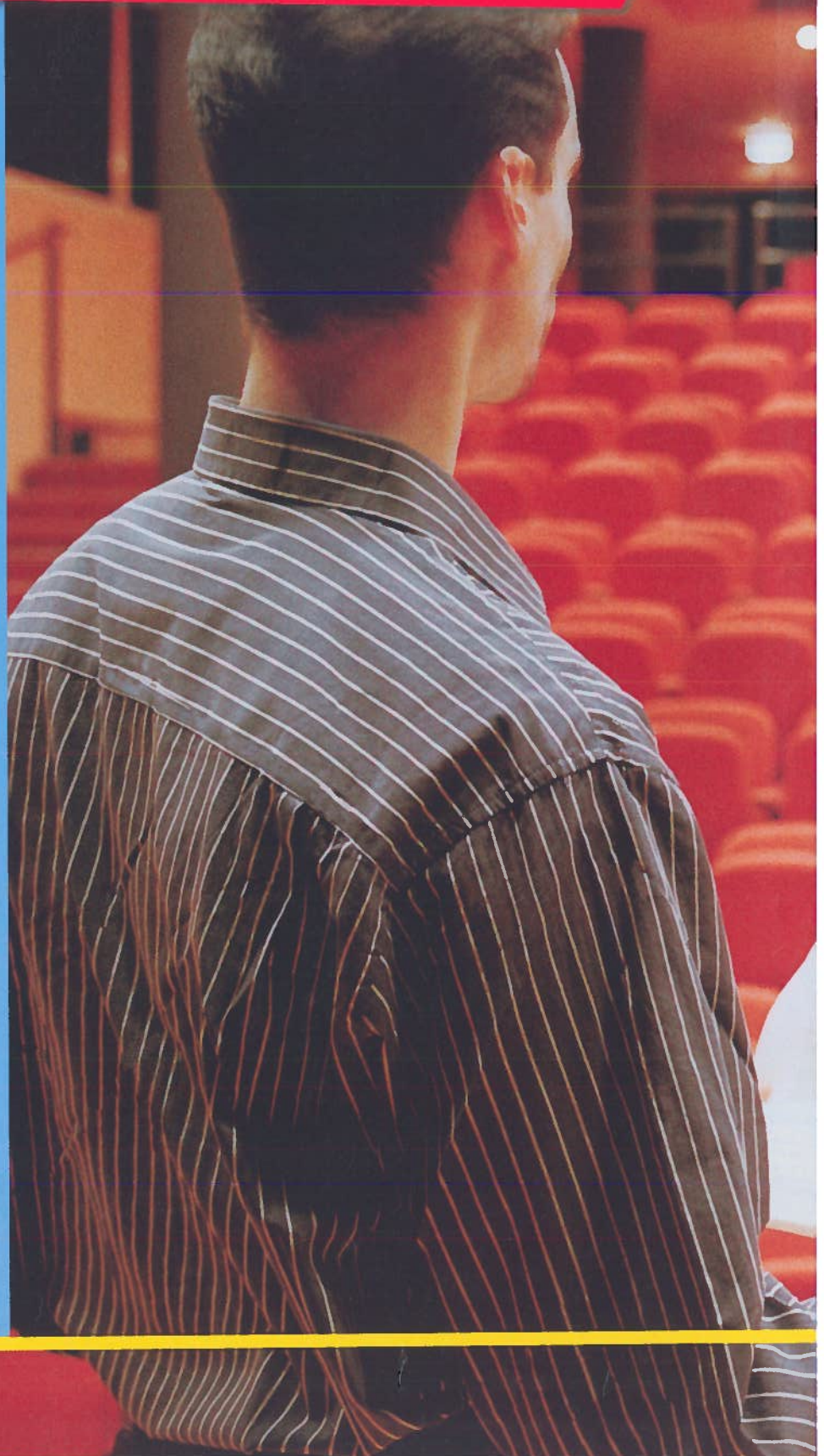
- **Practicing Healthful Behaviors** Managing Your Time

### Section 4

Coping With Stress

- **Hands-On Activity** Progressive Relaxation

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# TEENS Talk

CLASSROOM VIDEO #3

**Stressed Out**

## Preview Activity

### Have Sources of Stress Changed Over the Years?

Complete this activity before you watch the video.

1. Make a list of the top five everyday problems that cause stress in your daily life.
2. Interview one or two adults and ask them to recall the top five everyday problems they faced in high school.
3. Write a paragraph that compares the problems you listed with the problems the adults listed. Based on this comparison, would you say that sources of everyday stress have changed, or stayed the same? Explain. **WRITING**



## Section 1

# What Causes Stress?

### Objectives

- ▶ **Describe** what causes a person to experience stress.
- ▶ **Identify** four general types of stressors.

### Vocabulary

- stress
- eustress
- distress
- stressor
- catastrophe

### Warm-Up

• **Myth** People should try to avoid all situations that can lead to stress.

• **Fact** Stress is a normal part of life that you cannot avoid. Sometimes stress can have a positive outcome.

• **WRITING** You are invited to a friend's birthday party. What about this situation could cause you to experience stress?



## What Is Stress?

It is early morning and you are fast asleep. Suddenly, your alarm clock sounds. You sit up quickly, open your eyes, and jump out of bed. As you react to the ringing alarm, you experience stress. **Stress** is the response of your body and mind to being challenged or threatened. **You experience stress when situations, events, or people make demands on your body and mind.** Most people think of stress as a negative experience, but stress can be positive as well. Stress is positive when it helps you escape from a dangerous situation, promotes your personal growth, or helps you accomplish your goals. Positive stress is sometimes called **eustress**. Negative stress is sometimes called **distress**.

Think about something you have accomplished lately—perhaps you did well on a test or your team defeated a tough opponent in soccer. You may remember the feelings you experienced before and during the event. Do you think you performed better as a result of the stress?

At moderate levels, stress can actually improve your ability to concentrate and perform at your best. Beyond that level, however, it begins to take a negative toll on performance. Suppose that you were scheduled to take your driver's test next week. Feelings of stress might assure that you practice during the week. On the day of the test, your nervousness might make you more alert behind the wheel. But what if you experience overwhelming stress during the test? You might find it difficult to concentrate and you might make mistakes that cause you to fail the test.

## The Many Causes of Stress

An event or situation that causes stress is called a **stressor**. A ringing alarm clock is one example of a stressor. Other stressors in your life may be a difficult homework assignment or an argument with a friend. These events make demands on your body and mind. **Four general types of stressors are major life changes, catastrophes, everyday problems, and environmental problems.**

**Major Life Changes** Do you remember how you felt on your first day of high school? Were you excited? Were you nervous? Perhaps you experienced both emotions at the same time. You had to adjust to new surroundings, new people, and increased expectations. Starting high school is an example of a major life change. So is graduating from high school. Major life changes are stressful because it takes energy to adjust to a new situation. A major life change may also threaten your sense of security or your self-esteem. The more major life changes you experience in a year, the more stress you are likely to feel.

Figure 1 lists some major life changes. Notice that the list includes positive changes as well as negative ones. While being accepted to the college of your choice is indeed a positive event, it can be just as stressful as a negative event, such as having a parent lose a job. It is important to realize that change, both positive and negative, is in itself stressful.

### Connect to YOUR LIFE

List three major life changes you experienced during the past five years.

#### Major Life Changes

- ▶ Graduating from high school
- ▶ Experiencing death of a parent
- ▶ Going through parents' divorce
- ▶ Experiencing remarriage of parent
- ▶ Having a newborn sister or brother
- ▶ Having a serious illness
- ▶ Moving to a new school district
- ▶ Failing a grade
- ▶ Being accepted to college
- ▶ Breaking up with boyfriend or girlfriend
- ▶ Having parent lose his or her job
- ▶ Learning you were adopted
- ▶ Not making the team
- ▶ Being elected to student government
- ▶ Being recognized for an achievement
- ▶ Leaving home for college or a job



**FIGURE 1** A major life change may be related to health, family, employment, friendships, or education.

**Classifying** Which of the life changes listed would you classify as positive?



**Catastrophes** Major life changes are an expected part of life; other highly stressful events are unexpected. A **catastrophe** (kuh TAS truh fee) is an event that threatens lives and may destroy property. Natural disasters such as hurricanes, floods, and tornadoes are catastrophes. So are violent crimes, terrorism, and war. A person who experiences a catastrophe may deal with the psychological effects for years after the event. Reading about a catastrophe or seeing images on television can also cause stress.

**Everyday Problems** Some of the most common stressors are minor, but frequent, everyday events. These common stressors are sometimes called “hassles.” Hassles include misplacing your keys, missing your bus, or having too many homework assignments on the same day. While such problems seem minor, they contribute greatly to your overall feeling of stress. This is because hassles occur day in and day out. Can you remember a day in the past month that was free of hassles?

Conflict—disagreements with family members, friends, or others—is another common source of stress. Some high school students experience more conflict than they did when they were younger or disagree over issues that are more serious. How you dress, what music you listen to, what friends you see—these are all possible sources of conflict and stress.

For many people, the pressure to succeed is a major source of stress. They don’t want to fail and they don’t want to disappoint their families, their friends, or themselves. You can feel this pressure any time there is competition—in class, at a swim meet, playing chess, or in a debate. Not knowing what you will do once you leave school can also be stressful.

**Connect to YOUR LIFE** What everyday problems did you experience today that were stressful for you?

**FIGURE 2** For some people, waiting in line to buy a ticket can be stressful.

### Avoid Waiting in Line

- Purchase tickets in advance.
- Pick a different time of day.
- Wait a while to see a new release.



**Environmental Problems** Conditions in your immediate surroundings affect your level of stress each day. Suppose, for example, that you commute to school on an overcrowded subway or bus. Your level of stress might be quite high by the time you arrive at school. If you then have to hunt for a book in a messy locker, your level of stress will continue to rise.

A major stressor that occurs all around you but is often overlooked is noise. People who live near airports show signs of high stress levels due to the noise of airplanes taking off and landing. Living near an elevated commuter rail or a busy highway can have a similar effect.

Living in unsafe or crowded conditions also tends to increase feelings of stress. So does living where the air quality is poor or where litter collects on sidewalks. Weather conditions can also contribute to stress. During a heat wave or a long spell of freezing temperatures, people may feel increased stress. This may be because they feel cooped up indoors. Or they may be stressed because they cannot afford to keep the temperature indoors as cool or as warm as they might like it to be.



**FIGURE 3** Adding something attractive to the neighborhood can help to reduce stress. These teens are painting a mural.

## Section 1 Review

### Key Ideas and Vocabulary

1. What is **stress**? Explain how stress can be both positive and negative.
2. When do people experience stress?
3. What is meant by the term **stressor**?
4. List the four general types of stressors and give an example of each type.

### Critical Thinking

5. **Applying Concepts** List five stressful experiences that you have faced in the past two weeks. Next to each, note whether it was a positive or a negative experience for you.

## Health and Community

**Noise Pollution** Does your community have any regulations related to noise? If so, do the regulations vary with time of day or location? Sources of noise that might be regulated are radios, car exhausts, power lawnmowers, and blasting for construction. Write a paragraph summarizing your findings. **WRITING**

6. **Classifying** Explain why getting your driver's license could be classified as a major life change.
7. **Comparing and Contrasting** How is a catastrophe similar to a major life change? How is it different?



## Section 2

# How Stress Affects Your Body

### Objectives

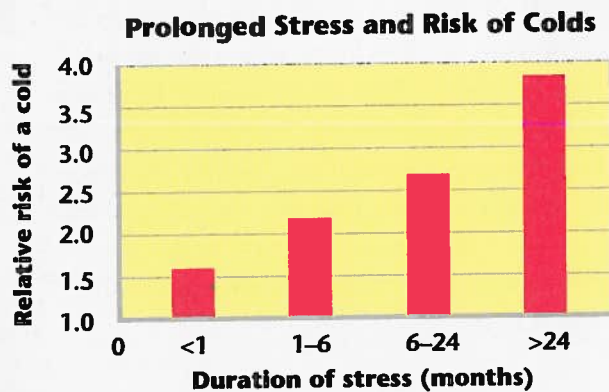
- ▶ **List** in order the three stages of the body's response to stress.
- ▶ **Identify** four types of early warning signs for stress.
- ▶ **Describe** the relationship between stress and illness.

### Vocabulary

- fight-or-flight response

### Warm-Up

**Health Stats** Is there a relationship between stress and the risk of catching a cold?



**WRITING** Predict why being in a prolonged stressful situation might increase the likelihood of getting a cold.

## Stages of Stress

You are walking in a park. Suddenly, you see a large dog that isn't on a leash. The dog is growling. How do you react? Instantly, your mind sizes up the situation. You recognize that the dog could be a threat to your safety. When you perceive something to be a threat, your body springs into action. Your body's response isn't under your control—it's automatic.

All stressors trigger the same stress response. However, the intensity of the response will vary. **The body's response to stress occurs in three stages—the alarm stage, the resistance stage, and the exhaustion stage.**

**Alarm Stage** During the alarm stage, your body releases a substance called adrenaline (uh DREN uh lin) into your blood. Adrenaline causes many immediate changes in your body, as shown in Figure 4. Your heart beats faster, your breathing speeds up, and your muscles tense. Your attention narrows as you focus on the stressor.

These changes prepare you to either “fight” the stressor or “take flight” and escape. Thus, this initial reaction of the body to stress is called the **fight-or-flight response**. This response probably helped early humans survive. Today, your body still reacts to any stressor with the same set of changes even when fight-or-flight is not a useful response.

## Fight-or-Flight Response



**Resistance Stage** Sometimes you can deal with a stressor quickly. You find the keys you thought were lost or you know the answers to the questions on a quiz. If, however, you are unable to successfully respond to a stressor during the alarm stage, your body moves into the resistance stage. During this stage, your body adapts to the continued presence of the stressor. You may think you are no longer stressed because the symptoms from the alarm stage disappear. However, the work that your body does during the resistance stage uses up a lot of energy. As a result, you may become tired, irritable, and less able to handle any added stress.

**Exhaustion Stage** The third stage of the stress response is the exhaustion stage. Your body can no longer keep up with the demands placed on it. Your physical and emotional resources are depleted.

The exhaustion stage does not occur with each stress response. If it did, your body would wear out. Exhaustion occurs only if a stressor continues for a long time—usually weeks, months, or even years. People may reach the exhaustion stage when they experience extreme stress that is beyond their control—such as a death of a family member.

**FIGURE 4** During the alarm stage, adrenaline triggers many changes in the body. For example, extra sugar released into your blood combines with oxygen in body cells to give you a burst of energy. **Interpreting Diagrams** List two body functions that speed up during the alarm stage. List two that slow down.



## Warning Signs of Stress

### Behavioral Changes

- Overeating or hardly eating at all
- Sleep problems
- Hurrying; talking fast
- Withdrawing from relationships
- Reckless behavior

### Changes in Thinking

- Unable to concentrate
- Negative thinking
- Excessive worrying
- Self-criticism
- Critical of others

### Physical Changes

- Muscle tension
- Headache
- Upset stomach
- Pounding heart
- Shortness of breath
- Increased sweating
- Skin rash

### Emotional Changes

- Irritable
- Angry
- Impatient
- Nervous
- Increased crying



**FIGURE 5** These are some common warning signs of stress. They include physical changes, emotions, thoughts, and behaviors.

## Recognizing Signs of Stress

If you have ever tried to concentrate on a task after a stressful day, then you know that stress can interfere with your ability to focus and think clearly. When people are distracted, they risk injuring themselves and others. A driver may not notice that a pedestrian has stepped into the crosswalk. Or the pedestrian may not notice the car. Reducing the risk of injury is one reason to reduce your level of stress. Another reason is to prevent the effects of prolonged stress on your body.

Before you can deal with stress, you must recognize the warning signs. **The warning signs of stress include changes in how your body functions and changes in emotions, thoughts, and behaviors.** As you look over the list of warning signs in Figure 5, think about how you act and feel when under stress. Begin your own personal list of warning signs by selecting items from Figure 5 that apply to you. Add other changes you associate with being stressed. The next time you experience some of the warning signs on your list, you will know that you are under stress.

The next step is to try to identify the stressor you are facing. Sometimes this task is easy because the source of the stress is obvious; for example, a close friend is moving away. Noticing patterns can help you identify a stressor. Perhaps you always show signs of stress when you haven't had enough sleep. When it is difficult to pin down the source of your stress, try recording your activities and responses in a journal. Don't get discouraged. It may take time for a pattern to emerge. By recognizing the warning signs as early as possible and by identifying stressors, you may be able to prevent some of the more serious effects of stress.

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**What warning signs of stress do you routinely experience?**

## Stress and Illness

Severe or prolonged stress can affect your health. Stress can trigger certain illnesses, reduce the body's ability to fight an illness, and make some diseases harder to control.

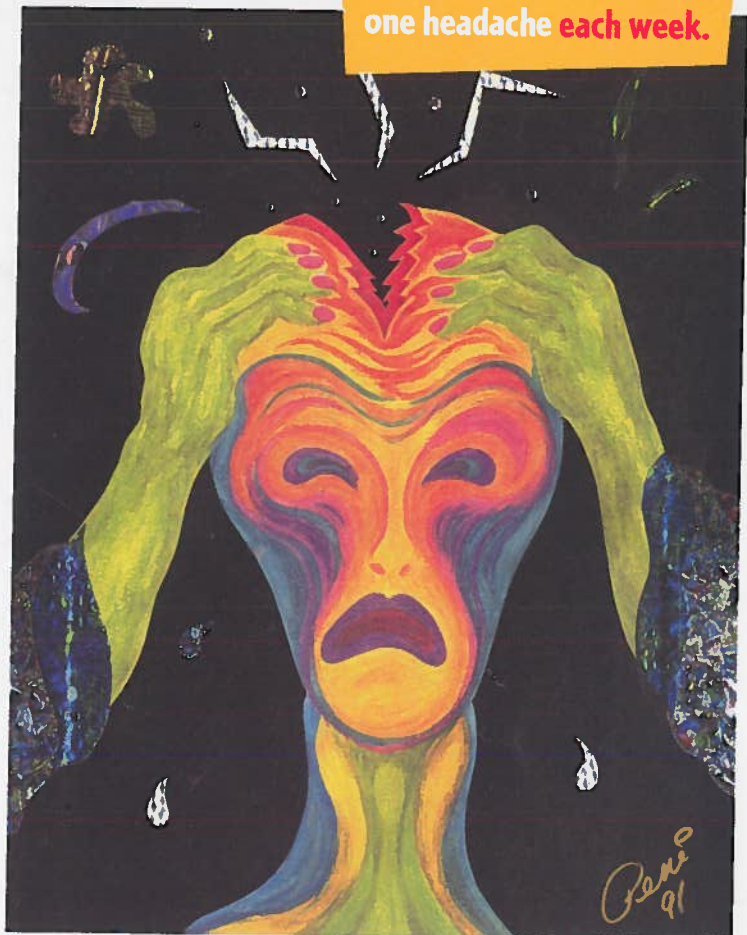
**Stomachaches** A "stomachache" can occur in your stomach, small intestine, or large intestine. Stress disrupts the movement of food through the digestive system. The food may move too quickly or too slowly. You might experience gas, cramps, diarrhea (dy uh REE uh), or constipation.

Stress also increases the amount of stomach acid. Doctors used to think that excess acid attacked the lining of the stomach and caused open sores, called ulcers, to form. Then researchers found bacteria in the stomach that could cause ulcers. When medicine was used to kill the bacteria, the ulcer healed. Current thinking is that excess acid makes it more likely that an ulcer will form and makes it more difficult for an ulcer to heal.

**Asthma** Asthma (AZ muh) is another illness for which stress can be a trigger. An asthmatic attack happens when the air passages of the respiratory system narrow, making it difficult to breathe. During an attack, the person coughs, wheezes, and gasps for air. These symptoms usually can be controlled by medication that is inhaled. But it helps if people with asthma recognize which stressors can trigger an attack.

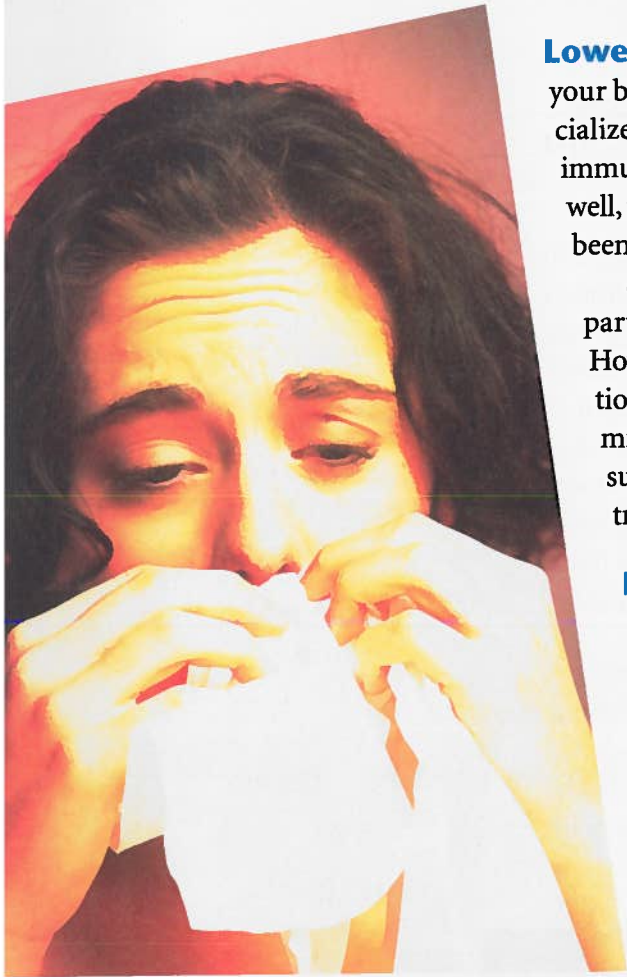
**Headaches** Stress can trigger headaches. Tension in the muscles around your scalp, face, and neck may produce an aching or pounding sensation in your head. A type of headache called a migraine (MY grayn) begins when blood vessels in the brain and scalp narrow, which limits the supply of oxygen to the brain. The blood vessels must then open wide to increase the flow of oxygen. This stretching of the blood vessels causes the painful throbbing of a migraine. If you suffer from frequent headaches, you may want to keep a diary to determine what factors trigger the onset of a headache. In addition to stress, certain foods, such as chocolate or large amounts of caffeine, can trigger headaches.

**FIGURE 6** A person who suffers from headaches painted this image of what it feels like to have a migraine headache.



**57% of female teens and 36% of male teens report having a least one headache each week.**





**FIGURE 7** Prolonged stress can weaken your immune system, which makes it harder to fight off a cold or flu.

**Lowered Resistance to Disease** The immune system protects your body from disease through a complex process involving many specialized cells. When you speak of fighting off the flu or a cold, your immune system does the fighting. When your immune system functions well, you are better able to resist some of the illnesses to which you have been exposed.

Scientific research has shown that, during the alarm stage, some parts of your immune system may function better than usual. However, prolonged stress can prevent the immune system from functioning well. If your immune system is weakened, you may develop minor illnesses, such as colds, more often. For people with diseases such as cancer, a weakened immune system makes it harder to control the disease.

**Heart Disease** Some effects of frequent or prolonged stress don't show up until later in life. Remember that during the alarm stage, your heart beats faster. Your blood vessels narrow and your blood pressure rises. Your heart must work harder to keep blood flowing through your body. Stress that is frequent or prolonged can cause damage to the muscle fibers in the heart. Prolonged stress can also damage the linings of blood vessels, which are under increased pressure. Because high blood pressure has no obvious symptoms and often goes undetected, it is sometimes called the "silent killer." Reducing stress is one of the ways that people can lower their blood pressure and reduce the risk of heart disease and stroke.

## Section 2 Review

### Key Ideas and Vocabulary

1. What are the three stages of the stress response? In what order do they occur?
2. Why is the body's response during the first stage of stress called the **fight-or-flight response**?
3. Describe four ways that you can recognize when you are under stress.
4. What is the relationship between stress and illness?

### Critical Thinking

5. **Relating Cause and Effect** Why is it important to identify signs of stress early?

### Health at Home

**Warning Signs of Stress** Ask a few friends and trusted adults if they can tell when you are under stress. Ask them to describe the warning signs that you exhibit. Write a paragraph about what you find out. **WRITING**

6. **Applying Concepts** Explain how changes that occur during the alarm stage could help you escape from a threatening situation.
7. **Making Judgments** A doctor with a patient who complains about stomach pains is likely to do a series of tests to determine the cause. Why might the doctor also ask about the patient's mental and emotional health?

# Stress and Individuals

## Section 3

### Warm-Up

**Quick Quiz** How many of the following statements accurately describe how you think or behave?



- 1 I need to be the best at everything I do.
- 2 If something doesn't go as planned, I feel like a failure.
- 3 I tend to expect the worst in most situations.
- 4 I want to be liked by everyone.
- 5 I really enjoy competition.

**WRITING** Review your responses. Then explain why you might be more or less likely to be under stress than others.

### Objectives

- ▶ **Explain** how individuals can have different responses to the same stressor.
- ▶ **Describe** two ways that personality affects stress.
- ▶ **Identify** the key factor in resilience.

### Vocabulary

- optimism
- pessimism
- perfectionist
- resilience

## Responses to Stress Vary

Your teacher walks into class and says, “Okay, everyone, put away your books. We are going to have a surprise quiz now.” How would you react? Now look around the classroom and imagine your classmates’ reactions. Would their reactions be the same as yours? Your teacher’s announcement might bring on a wide range of reactions—mild stress, extreme stress, confidence, and indifference are just some reactions you could predict.

Why does one person remain calm when faced with a stressor while another becomes anxious and tense? The answer to this question points out an important fact about stress—it is a highly personal experience. **How you react to a stressor depends on how you assess the situation.** As you assess the situation, you are answering two important questions:

- ▶ Is this situation a threat to my well-being?
- ▶ Do I have the necessary resources to meet the challenge?

Time, energy, skills, and experience are resources. Situations that cause the most distress are those in which you answer *no* to the second question.

You might see a surprise quiz as a threat if you need to maintain a certain grade to be eligible to play on a team. If you did poorly on previous quizzes, you might not be confident of doing well on this one. Your past experiences have a lot to do with how you respond to new situations.





**Player A is...**

- Confident
- Eager
- Calm
- Focused
- Optimistic

**Player B is...**

- Uncertain
- Hesitant
- Nervous
- Distracted
- Pessimistic

**Figure 8** Personality can affect how two people respond to the same situation. **Predicting** How could these players' thoughts and feelings affect their ability to perform?

## Stress and Personality

Your personality also has a lot to do with how you respond to stressors. For example, a friend invites you to a party. The only person that you will know at the party is your friend. How you respond to the situation will depend on your personality. If you are outgoing and confident, you might look forward to the opportunity to meet new people. However, if you are shy, you might feel threatened by the thought of meeting so many strangers. **Your personality influences your assessment of a situation.**

**Optimism and Pessimism** Carla and Joan play on a softball team. Their team is about to face the best team in the league. Carla is looking forward to the challenge. She likes competing against the best opponents. Her response reflects her optimism. **Optimism** is the tendency to focus on the positive aspects of a situation. Joan is threatened by the situation. She assumes that she will play poorly and that the other team will win by a wide margin. Her response reflects her pessimism. **Pessimism** is the tendency to focus on the negative and expect the worst.

**Aiming for Perfection** A **perfectionist** is a person who accepts nothing less than excellence. If you are a perfectionist about your appearance, for example, you may spend hours getting ready to go to school. If you are a perfectionist about your work, you may spend hours agonizing over each sentence in a paper and still not be satisfied.

Because perfectionists set goals that are impossible to attain, they are never satisfied with what they have accomplished. This can lead to a vicious cycle of trying harder, not being satisfied, and trying harder still. There are ways to break the cycle and reduce your stress.

- ▶ Accept that you cannot be perfect.
- ▶ Take pride in the things you do well.
- ▶ Don't focus on your mistakes.

**Connect to  
YOUR LIFE**

Are the goals that you set for yourself easy to reach, difficult to reach, or impossible to reach?

**Go Online**  
HEALTH  
LINKS.

**For:** Updates on stress and personality  
**Visit:** [www.SciLinks.org/health](http://www.SciLinks.org/health)  
**Web Code:** ctn-1033

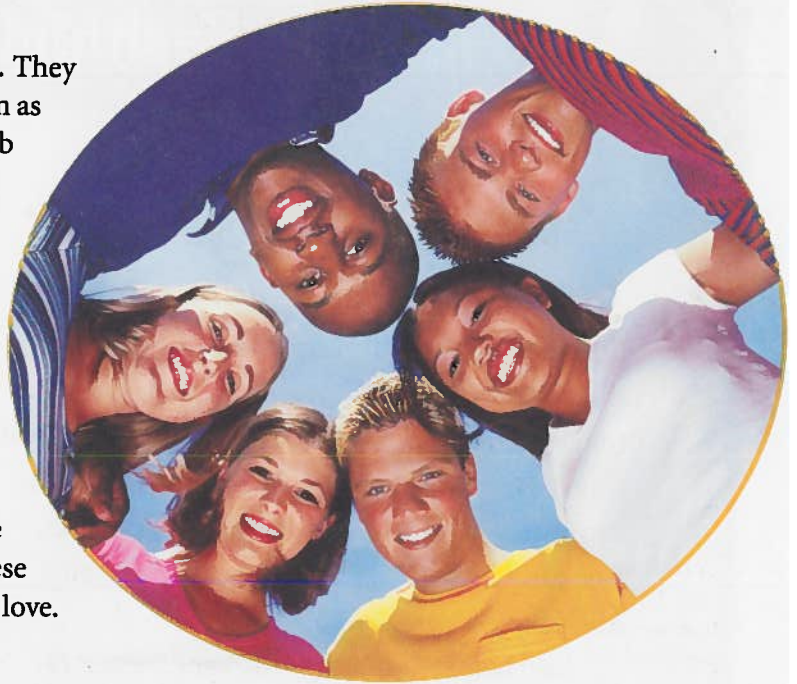
## Resilience

Some people seem to tolerate high levels of stress. They tend to view stressful events as challenges rather than as threats. For example, they might view the loss of a job as an opportunity to pursue a new career. Also, they believe that they are in control—that they can influence the outcome of a stressful event.

Even stress-hardy people will face a catastrophe or major life change that they are unable to control. They need to find a way to adapt to an extremely distressful situation. The ability to recover, or “bounce back,” from extreme or prolonged stress is called **resilience**. Many factors contribute to resilience. **The key factor in resilience is having the support of family and friends.** These relationships offer encouragement, reassurance, and love. People with resilience share other characteristics.

- ▶ They know their strengths and have confidence in their abilities.
- ▶ They make realistic plans and take the steps to carry out those plans.
- ▶ They have good communication and problem-solving skills.
- ▶ They are able to recognize and control their feelings.
- ▶ They recognize that change is a normal part of life. They are able to put life changes in perspective.

In the next section, as you study ways to cope with stress, you will learn how to build your resilience.



**FIGURE 9** People may use a “group huddle” to encourage one member of the group or the group as a whole.

## Section 3 Review

### Key Ideas and Vocabulary

1. Why might two individuals have different responses to the same stressor?
2. How does personality affect a person’s response to stress?
3. Define the term **resilience**.
4. What is the key factor in determining whether a person has resilience?

### Critical Thinking

5. **Applying Concepts** The weather report says there is a 50 percent chance of rain. How might your optimism or pessimism affect how you interpret this report?

## Health at School

**Resilience** Interview a guidance counselor, school nurse, or social worker. Ask the person you interview to describe those factors that make it easier for a student to recover from an extremely stressful situation. Summarize what you learn in a paragraph. **WRITING**

6. **Predicting** Impatience is a common personality trait. Predict how impatience could affect a person’s level of stress.
7. **Classifying** After Kenny completes his math homework, he checks his answers to see if they make sense. Based solely on this behavior, do you think Kenny is a perfectionist? Explain.



## Managing Your Time

Last night, José stayed up late to write a report that was assigned two weeks ago. He planned to do his math homework in the morning, but then slept through his alarm. In his haste this morning, José left his gym clothes at home. Running toward the school as the bell rang, José felt anxious and tense.

José needs to manage his time better. A good time manager completes daily tasks and still finds time to relax. Follow these steps to better manage your time.

### 1 Track how you spend your time.

- ▶ Use a sheet from a daily planner that is divided into 15-minute blocks or make your own version on ruled paper. Prepare a sheet for each day of the week.
- ▶ Mark all your scheduled activities on the grid, beginning with your classes at school. Include other activities that you attend on a regular schedule, such as religious classes or team practice.
- ▶ Use the grids to track how you currently spend your “free” time.

Monday	
8:00	Algebra I
9:00	English
10:00	American History
11:00	Earth Science
12:00	Lunch
1:00	Studio Art I
2:00	Basketball Practice

### 2 Make a daily “To Do” list.

- ▶ Before you go to bed, make a list of the tasks you need to do the next day.
- ▶ Include tasks that you know you have to do, such as homework and chores, along with tasks that you would like to do.
- ▶ Break long-range tasks, such as term papers and projects, into smaller, more manageable tasks. This makes it easier to fit these tasks into your schedule.



### 3 Prioritize your tasks.

Rate each task according to this scale.

A = very important

B = somewhat important

C = not very important

To Do List	
Do math homework	A
Do laundry	B
Outline history paper	A
Organize CDs	C
Call grandmother	B
Watch TV	C
Practice jump shots	B
Get permission slip signed	A

### 4 Plan your day.

- ▶ Assign an amount of time for each task. Make a practice of allowing more time for a task than you think it will require.
- ▶ Use copies of the grids you made in Step 1 to schedule your tasks.
- ▶ Do not schedule too many tasks each day. Allow some time for unplanned events.
- ▶ Try to do "A" tasks before you do "B" tasks, and "B" tasks before you do "C" tasks, even if a "C" task is easier.

### 5 Monitor your progress.

At different points during the day, ask yourself, "Is this the best use of my time?" If your answer is *no*, consider these questions:

- ▶ *Am I doing a "C" task because an "A" task seems overwhelming?* If so, break the "A" task into smaller steps that can be done in less than fifteen minutes.

- ▶ *Am I avoiding a task because I am afraid to fail or make a mistake?* You can waste a lot of time worrying about a task. If you just begin doing the task, you may realize that it is not as difficult as you thought.
- ▶ *Is this the right time to do this task?* For example, if your math homework is challenging, don't leave it until late at night when you are tired.
- ▶ *Am I being distracted by phone calls or instant messages?* Tell your friends when it is okay to contact you and when you need time to concentrate on homework or chores.



### Practice the Skill

1. For one week, keep track of how you spend your time each day. Decide whether or not you are spending your time wisely. Are there tasks that you can eliminate? Are there tasks that you can do more quickly?
2. During the second week, make a "To Do" list each day. Break down complex activities into a set of simpler tasks. Assign a specific, realistic amount of time for each task.
3. Use the A-B-C scale to prioritize your tasks and then decide which tasks you will do in each of the available time periods. Do your "A" tasks first each day, followed by "B" and "C" tasks.
4. If you are having trouble finishing your tasks, ask yourself the questions from Step 5.
5. At the end of the week, report to your class on how helpful the time management process has been for you. What can you do to improve your time-management skills?



## Section 4

# Coping With Stress

### Objectives

- ▶ **Identify** ways to control stress, reduce tension, and change the way you think about stressors.
- ▶ **Explain** why building resilience is important.
- ▶ **Describe** the value of seeking support from others when you are under stress.

### Vocabulary

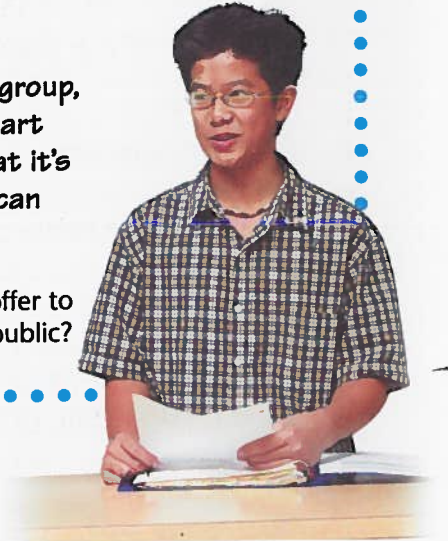
- mental rehearsal
- biofeedback

### Warm-Up

Dear Advice Line,

When I have to speak in front of a group, I panic. I begin to sweat and my heart pounds. My mouth gets so dry that it's hard to speak. Is there anything I can do about this problem?

**WRITING** What advice would you offer to someone who is afraid of speaking in public?



## Take Control of Stress

Many people tend to think that all stress is out of their control. This is not true. You can do many things to keep stress under control. In a sense, everything you do to maintain your health is a way to manage stress.

It is important to distinguish between stressors that you can control and those that you cannot. You cannot control natural disasters or major life changes such as the death of a grandparent. The adults in your family control your physical environment. They decide where you live and who lives with you.

There are, however, many stressors in your life that you can work to change. These stressors tend to be the everyday problems. For example, suppose you were in danger of failing math. What could you do? You could ignore the problem and pretend not to be worried or you could confront the problem and devise a plan to improve your grade. Your plan might include asking a friend for help, cutting down on other activities to focus more on math, and paying closer attention in class.

If you direct your energy toward those things that are within your power to change, you may be surprised to see what a difference you can make. **Two techniques that can help you keep stress under control are time management and mental rehearsal.**

**Time Management** Do you often wish there were more hours in the day? Do you tend to put things off until the last minute? If you answered *yes* to these questions, you may not be managing your time effectively. Poor time management is one of the biggest contributors to stress. The Building Health Skills on pages 68–69 can help you learn to use time more productively. Not only will you get more done each day, but you will also feel more in control of your life. As a bonus, you might also end up with more time for fun and relaxation.

**Mental Rehearsal** Suppose you have a big event coming up, such as a solo in a concert. If you are worried about your performance, you might use a technique known as a mental rehearsal to help you prepare. In a **mental rehearsal**, you practice an event without actually doing the event. The event takes place in your mind as you imagine yourself performing at your best. You might rehearse every aspect of the event a few times over until you feel confident that you can perform it as imagined. Of course, a mental rehearsal doesn't replace the need to actually practice for an event.

Athletes often use mental rehearsal while preparing for a competition. This technique helps athletes stay focused on their performances during highly stressful times. You also can use mental rehearsal to prepare for a difficult conversation with a family member or a friend.

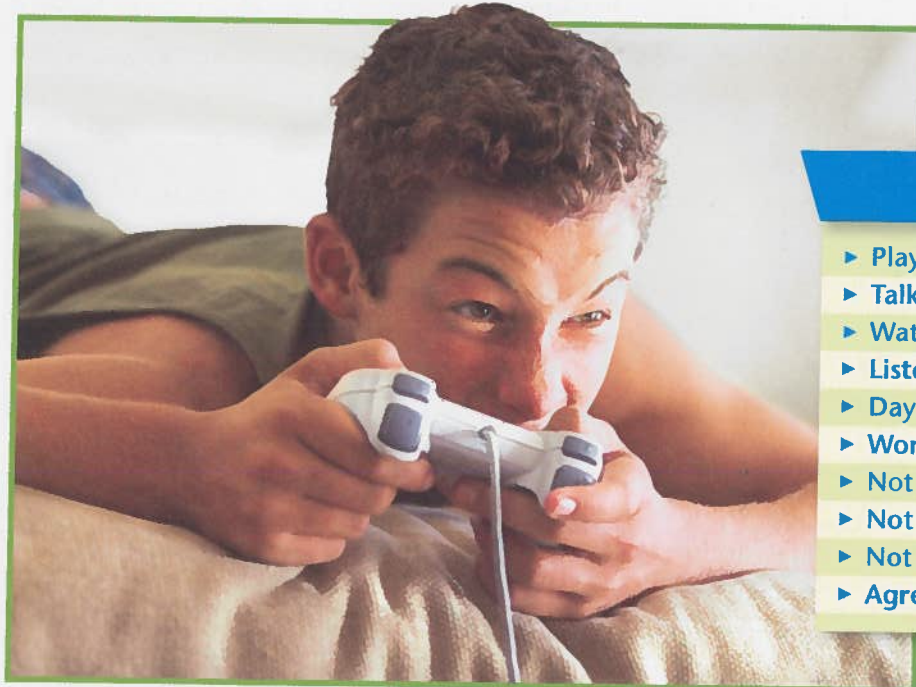
When you first try this technique, it may be difficult to keep your mind focused on your rehearsal. You might find that you are easily distracted by outside events. With practice, though, you will improve your ability to focus and put all distractions aside.

**Connect to  
YOUR LIFE**

Have you used mental rehearsal before an event? If so, did it help your performance?

**FIGURE 10** Time wasters keep you from making the best use of the time you have to study.

**Evaluating** Which example do you think costs you the most time? What other examples would you add to the list?



**Time Wasters**

- ▶ Playing video games
- ▶ Talking on the phone
- ▶ Watching TV
- ▶ Listening to music
- ▶ Daydreaming
- ▶ Worrying
- ▶ Not having a plan
- ▶ Not following instructions
- ▶ Not being able to concentrate
- ▶ Agreeing to do too many things



## Reduce Tension

Even when a stressor isn't under your control, there are things you can do to reduce the stress. When you recognize warning signs of stress, such as muscle tension or restlessness, you need to find a way to relieve the tension. **Three strategies that can help you relieve tension are physical activity, relaxation, and biofeedback.** These methods work by altering the physical state of your body.

**Physical Activity** Bicycling, taking a walk, playing the drums—these are some ways to release tension when you are under stress. By doing something physically active, you provide your body with a healthy outlet for built-up energy. At the same time, you shift your focus from your problems to the task at hand. This gives your mind a chance to relax, too.

You do not have to be an athlete to use physical activity to manage stress. The activities you choose don't have to be competitive sports, and you don't have to be the best at them. Instead, select activities that you enjoy. If you enjoy an activity, you are more likely to do it on a regular basis. Try to incorporate physical activity into your daily routine. That way, you will always have a way to work off the day's tension.

**Relaxation** The goal of relaxation techniques is to give your mind and body a rest. When you are relaxed, you may be awake and alert, but you are not responding actively to stressors. You may relax your mind by reading a book, taking a nap, listening to music, or doing something creative, such as playing the guitar. You can relax tense muscles by taking a hot shower or bath, stretching, or having someone massage your neck.

Deep breathing is a relaxation method that offers quick relief from stress. Take a few deep breaths in a row. Slowly breathe in as much air as you can through your nose. Hold the air in for a few seconds and then slowly exhale through your mouth. Place one hand on your chest and one on your abdomen as you inhale. Your abdomen should expand more than your chest. When you breathe deeply, you take in more oxygen, which helps your body to function better.

**FIGURE 11** Being physically active improves physical fitness, provides an outlet for excess energy, and takes your mind off your problems.



# Hands-On Activity

## Progressive Relaxation

You can use progressive relaxation to release the tension that builds up in your muscles.

### Try This

- 1 Sit quietly in a comfortable chair or lie down and close your eyes. Make sure that your arms and legs are uncrossed.
- 2 Tighten each muscle group in your body, hold for 10 seconds, and relax. Follow the order in the bulleted lists.
- 3 Finally, tense all the muscles in your whole body. Hold for 10 seconds and relax.

### Think and Discuss

- 1 Compare how you felt before doing this activity to how you felt after doing the progressive relaxation.
- 2 Think back to what you learned about the alarm stage of your body's response to stress. Why do you think progressive relaxation is an effective stress-reduction technique?
- 3 List some times during a typical week when it would be helpful to use progressive relaxation.



- Wrinkle your forehead. Try to make your eyebrows touch your hairline.
- Close your eyes as tightly as you can.
- Form a frown with the corners of your mouth.

- Raise your shoulders up to your ears.
- Bend your elbows and tense your upper arms.
- Tightly clench your fists.
- Gently arch your back.

- Tighten your stomach muscles.
- Tighten your hip and buttock muscles.
- Squeeze your legs together.
- Curl your toes under as tightly as you can.

**Biofeedback** Some methods for coping with stress require training and equipment. An example is biofeedback. With **biofeedback**, people learn to control one or more body functions by monitoring their body's responses. The functions that they learn to control are ones that are often affected by stress, such as heart rate or blood pressure.

A trained health professional usually teaches biofeedback. The health professional might, for example, attach a device to a patient's back muscles that measures muscle tension. The results are displayed on a monitor. The patient can see when the muscles are tense and identify thoughts that are causing the tension. The patient then learns to control the tension by changing his or her thoughts. In time, many people can recognize muscle tension and control it without using the equipment.

For people who suffer from headaches or asthma, biofeedback can be useful. Studies have shown that people with asthma may be able to reduce their need for medication by learning to control their heart rates.

### Connect to YOUR LIFE

What physical activities do you enjoy doing? Do they help you relax?



## Change Your Thinking

Do you tend to overreact to unexpected events or worry a lot about the future? Sometimes you can reduce your level of stress by changing the way you think about stressors. **One way to change your thinking is to replace negative thoughts with positive ones. You can also use humor in some stressful situations.**

**Avoiding Negative Thinking** Think back to the last time you were in a stressful situation. What thoughts were going through your mind? Were you thinking things like “I’ll never be able to do this,” or “Everyone will think I’m stupid,” or “I’m not as good as the others”? For many people, negative thoughts like these accompany stressful situations. Of course, such negative thinking only increases a person’s stress level. With negative messages running through the person’s mind, it becomes almost impossible to succeed.

How can you stop yourself from thinking negative thoughts when you are under stress? One way is to monitor your internal conversations closely and substitute positive or realistic thoughts for negative thoughts. For example, instead of thinking “I’ll never be able to do this,” you might think, more positively, “I’ve done things like this before.” Another way to eliminate negative thinking is to act as a “coach” while you think about an upcoming stressful event. As you do a mental rehearsal of the event, give yourself positive messages such as “You can do it.” This will boost your self-confidence, which will help you during the actual event.

**Humor** Finding humor in a situation can be an effective way to deal with stress. Have you ever laughed at yourself after doing something that was not really funny, such as slipping on a wet floor or saying something embarrassing in front of a group of people? If so, you probably realized that your laughter helped to relieve your feelings of stress.

If you use humor carefully, it can be an effective tool for managing stress. Humor allows you to deal quickly with a stressor and keep it in the proper perspective. But don’t use humor to cover up your true feelings. Also avoid laughing at serious situations. Remember that making fun of yourself is different than making fun of other people’s problems.

**FIGURE 12** Humor can be an effective way to ease tension and provide relief from stress.



## Build Resilience

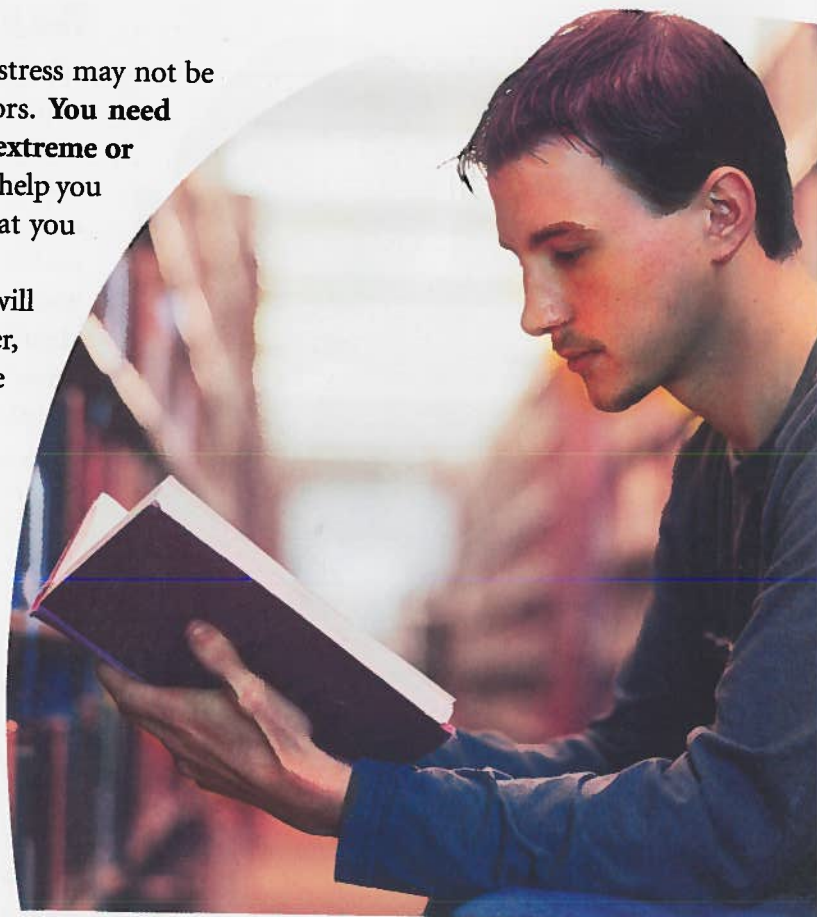
The strategies discussed so far for coping with stress may not be sufficient for dealing with all types of stressors. **You need to build your resilience to help you deal with extreme or prolonged stress.** The strategies listed below can help you increase your resilience. Pick the approaches that you think will work best for you.

Even the most resilient person in the world will be unhappy or worried some of the time. However, knowing these strategies can help you “bounce back” from setbacks in your life.

- ▶ **Take Care of Yourself** Exercise, eat well, and get enough sleep. Find time for activities you enjoy. When your general health is good, you are better able to deal with stressful situations.
- ▶ **Build a Support System** Develop good relationships with family, friends, and other people who will care for and listen to you.
- ▶ **Take Action** Decide what needs to be done and act on your decision. Set short-term goals that you know you can accomplish.
- ▶ **Help Somebody** Volunteer to work on a project in your community or help a friend with a problem.
- ▶ **Confide in Yourself** Sometimes it is too difficult to talk with others about your feelings. You can confide in yourself by writing about stressful events in a journal.
- ▶ **Go Easy on Yourself** When something bad happens, your response to other stressors may be more intense. So cut yourself a little slack.
- ▶ **Put Things in Perspective** Look beyond a difficult situation to a time when things will be better. When you talk about bad times, remember to talk about the good times in your life, too.
- ▶ **Find a Hassle-Free Zone** Find someplace where you can feel free from stress—your home, a relative’s house, a community center, or the library.
- ▶ **Stick to Your Routines** During a major life change, keep to daily routines, such as a nightly conversation with a friend.

### Connect to YOUR LIFE

Where are some places you can go to feel free from stress?



**FIGURE 13** A library can provide a quiet place to get away from the everyday hassles of school and home.



## Reach Out for Support

What if you try many of the stress-management techniques described in this chapter and nothing seems to work? Sometimes the stress in your life becomes too overwhelming for you to handle on your own. At those times, you may want to ask someone to help you with your problems. Sometimes all you need is someone to talk to. **Sharing your problems can help you see them more clearly. Just describing your concerns to someone else often helps you to understand the problem better.** Many people are willing to listen and lend support if you ask.

- ▶ a parent or other adult relative
- ▶ a teacher or a coach or a religious leader
- ▶ a school counselor or nurse
- ▶ a sibling or friend

The person you choose to talk to may not be able to help you with your specific concerns. But he or she may be able to refer you to someone who can.

At some time in your life, you may want or need some kind of counseling. Many specialists are available to work with people who need help coping with stress. Some specialists are trained to help you identify the stressors in your life and learn constructive strategies for coping with them.



**FIGURE 14** Sharing a problem with someone you trust can help you to better understand the problem. Just talking about your problems can often help reduce your stress.

## Section 4 Review

### Key Ideas and Vocabulary

1. List seven techniques you can use to cope with stress:
  - a. two techniques that help you take control
  - b. three strategies to help relieve tension
  - c. two ways to change your thinking
2. What does **biofeedback** mean?
3. Why is it important to build resilience?
4. How can seeking the support of others help when you are under stress?

### Critical Thinking

5. **Relating Cause and Effect** Explain how relaxation techniques help to reduce stress.

### Health at Home

**Building Resilience** Look at the list of strategies for building resilience on page 75. Describe specific ways that you could use four of the strategies to help manage your stress. **WRITING**

6. **Making Judgments** Do you think the saying "Don't sweat the small stuff" is good advice for coping with stress? Why or why not?
7. **Applying Concepts** Your best friend's father just lost his job. Your friend is worried that his family might have to move to a different city. How could you help your friend through this stressful time?

**Stressed Out** What did you learn from the video about dealing with the stress in your life?

## Section 1 What Causes Stress?

### Key Ideas

- ✓ You experience stress when situations, events, or people make demands on your body and mind.
- ✓ Four general types of stressors are major life changes, catastrophes, everyday problems, and environmental problems.

### Vocabulary

- stress (56)
- eustress (56)
- distress (56)
- stressor (57)
- catastrophe (58)



## Section 2 How Stress Affects Your Body

### Key Ideas

- ✓ The body's response to stress occurs in three stages—the alarm stage, the resistance stage, and the exhaustion stage.
- ✓ The warning signs of stress include changes in how your body functions and changes in emotions, thoughts, and behaviors.

- ✓ Stress can trigger certain illnesses, reduce the body's ability to fight an illness, and make some diseases harder to control.

### Vocabulary

- fight-or-flight response (60)

## Section 3 Stress and Individuals

### Key Ideas

- ✓ How you react to a stressor depends on your assessment of the situation.
- ✓ Your personality influences your assessment of a situation.
- ✓ The key factor in resilience is having the support of family and friends.

### Vocabulary

- optimism (66)
- pessimism (66)
- perfectionist (66)
- resilience (67)



## Section 4 Coping With Stress

### Key Ideas

- ✓ Two techniques that can help you keep stress under control are time management and mental rehearsal.
- ✓ Three strategies that can help you relieve tension when you are stressed are physical activity, relaxation, and biofeedback.
- ✓ One way to change your thinking is to replace negative thoughts with positive ones. You can also use humor in some stressful situations.

- ✓ You need to build your resilience to deal with extreme or prolonged stress.
- ✓ Sharing your problems can help you see them more clearly. Just describing your concerns to someone often helps you to understand the problem better.

### Vocabulary

- mental rehearsal (71)
- biofeedback (73)



## Reviewing Key Ideas

### Section 1

- A good friend is in the hospital with a serious illness. This stressor can be classified as
  - an everyday problem.
  - a major life change.
  - a catastrophe.
  - an environmental problem.
- Explain how stress can be a positive experience.
- Why are major life changes stressful?
- Critical Thinking** Do you think that adolescence is an especially stressful time? Explain.

### Section 2

- The stage when your body adapts to the continued presence of a stressor is the
  - alarm stage.
  - resistance stage.
  - exhaustion stage.
  - adaptation stage.
- List six things that happen to your body during the fight-or-flight response.
- Explain the relationship between stress and the onset of an asthmatic attack.
- What effect can prolonged stress have on your immune system?
- Critical Thinking** Why do you think that sleep problems are a useful warning sign of stress?

### Section 3

- What is the statement "I'll never be able to do this" an example of?
  - aiming for perfection
  - negative thinking
  - optimism
  - resilience
- As you assess a stressful situation, what two general questions are you answering?
- How does having the support of family and friends contribute to resilience?
- Critical Thinking** Researchers have compared the level of stress in different sports. They found that individual sports, such as gymnastics, can cause more stress than team sports, such as basketball. Why do you think this difference exists?

### Section 4

- Stressors that you can control tend to be
  - catastrophes.
  - major life changes.
  - everyday hassles.
  - environmental problems.
- Explain how the process of mental rehearsal can help you manage stress.
- When is it important for a person who is stressed to reach out for support?
- Critical Thinking** A lie detector measures changes in a person's heart rate and breathing rate. How might changes in these body functions indicate that a person is lying?



## Building Health Skills

- Advocacy** You have a friend who is involved in so many activities that he no longer has time for you. Lately, he complains that he "can't think straight anymore." Use an e-mail to offer some advice to your friend. **WRITING**
- Making Decisions** A product called "Stress Vitamins" claims to "replace essential vitamins that are lost during times of stress." How would you decide whether or not to buy the vitamins?
- Setting Goals** Make an action plan to help you reduce the stress of test-taking. Apply strategies you learned for coping with stress. Put your plan into action a week before your next test and monitor your progress. After the test, adjust your action plan, if necessary. **WRITING**

## Health and Community

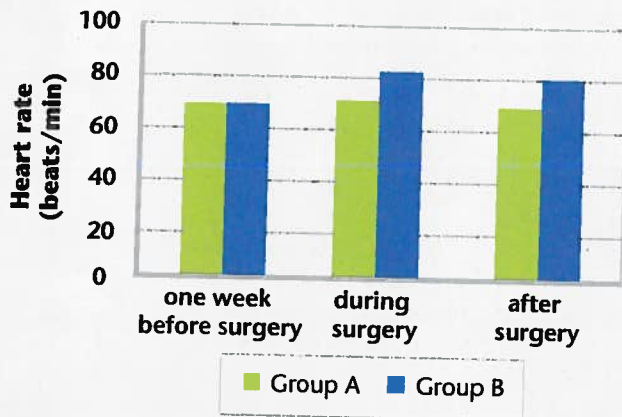
**Volunteering** Helping others is one way to build resilience. Describe something you could do for one hour each week to help younger students learn to deal with stress. **WRITING**



# Standardized Test Prep

## Math Practice

The graph shows how listening to music affects the heart rates of surgery patients. Group A listened to the music of their choice during and after surgery. Group B did not. Use the graph to answer Questions 21–24.



- What was the average heart rate for both groups a week before surgery?
  - 65 beats per minute
  - 70 beats per minute
  - 75 beats per minute
  - 80 beats per minute
- What happened to the average heart rate of Group B during surgery?
  - The heart rate increased.
  - The heart rate decreased.
  - The heart rate stayed the same.
  - The heart rate was equal to the average heart rate of Group A.
- What happened to the average heart rate of Group A during surgery?
  - The heart rate increased.
  - The heart rate decreased.
  - The heart rate stayed the same.
  - The heart rate increased and then decreased.
- Based on the graph, which of the following statements is true?
  - Listening to music has no effect on stress.
  - Listening to music can increase stress.
  - Listening to music can decrease stress.
  - Average heart rate is not a good measure of stress.

## Reading and Writing Practice

Read the passage. Then answer Questions 25–28.

When people rely heavily on technology, they may become victims of *technostress*. With cell phones and instant messaging, people expect to be able to reach someone at any time and at any place—at work, in the car, at home. This constant stimulation and interruption can be stressful. So can having a computer crash when you are facing a deadline. This situation is ironic. Technology is designed to make people more productive—able to accomplish more in the same amount of time. But technostress can make people less productive because they become forgetful or cannot concentrate.

- What is the main idea of the passage?
  - People should not use technology.
  - Technology makes people less productive.
  - Relying on technology can cause stress.
  - Stress makes it harder to concentrate.
- Based on this passage, the word *ironic* means
  - stressful.
  - predictable.
  - unexpected.
  - funny.
- Technology is designed to
  - reduce the time a person spends at work.
  - increase the time a person spends at work.
  - increase the time needed to do a given task.
  - decrease the time needed to do a given task.

### Constructed Response

- In a paragraph, explain how technology can cause stress. Give at least two examples of technostress.

### Test-Taking Tip

When taking a test, be aware of how much time you have and the total number of questions. Wear a watch to keep track of your progress.