

15. Stress and Health

Objectives

- Explain the causes and effects of stress
- Explore ways to cope with stress
- Understand the effects of psychology on overall health

Vocabulary

| | | | |
|-----------------------|-----------------------------------|-----------------------------|-------------------|
| active coping | eustress | overstress | stress reaction |
| biopsychosocial model | general adaptation syndrome (GAS) | psychoneuroimmunology (PNI) | Yerkes-Dodson Law |
| defensive coping | immune system | stressor | |

Background

Stress is a constant in most people's lives, especially in the 21st century. High school students are pressured to behave well, to perform academically, to belong to social groups, and conform to peer standards. They juggle school, athletics, family life, friends, a job, and even a romantic relationship. They're usually short on sleep and highly stressed.

In this chapter, they learn about stress and how to cope with it. The chapter describes stress is defined as including both a stressor and a stress reaction. Types of stressors—from daily hassles to disasters and catastrophes—are presented in detail. Because a person's psychological state influences physical health, students then focus on the psychology of health, which introduces psychoneuroimmunology, the field of study that shows the messenger molecule connection between the brain, endocrine system, and the immune system.

They next discover that new approaches are emerging for doctors to treat their patients in a fashion that includes body, mind, and social environment. The chapter discusses this "biopsychosocial model," and goes on to discuss stress and the immune system and the physiological and psychological responses to stress. It also presents the cognitive effects of stress. Students discover that these effects vary from

individual to individual. Students can test their individual stress levels with the Stress Scale for Youth, which assigns points to various life events that could add stress to their lives.

Students next learn about coping with stress, which can include both healthy and unhealthy responses. Students are encouraged to be aware of stressors in their lives, to make changes, to take control, to learn to relax and relieve stress, to take care of themselves, and to get help when needed. The chapter moves on to detail both healthy and unhealthy ways of coping with stress.

Students next learn about the chemistry of stress, finding out that the body's delicate chemical balance can be disrupted by stress. The body itself responds to stress by reducing the production of molecules that make them feel "up." Though some use mood-altering drugs to bring about these "up" feelings, the chapter warns students of their dangers.

Further Resources

- Meichenbaum, Donald. *Coping with Stress*. New York: Facts on File, 1987.
- Selye, Hans. *The Stress of Life*. New York: McGraw Hill, 1978.

For Discussion

Review

1. Describe a stressor and a stress reaction.
2. What are the six stages of active coping?
3. What are the factors that influence a person's response to stress?
4. What are the unhealthy behaviors of defensive coping?

Critical Thinking

1. What are your main sources of stress? What do you think you can do to actively cope with them?
2. Using the Stress Scale for Youth, what is your total score for the last twelve months? Are you overstressed? Why or why not?
3. What is your opinion of psychoneuroimmunology? In what new ways—if at all—could doctors improve their approach to caring for their patients?
4. Can you think of an (anonymous) person in your life who exhibits unhealthy stress-related behaviors? How do these behaviors affect that person's daily life? What advice would you give to him or her?
5. Why do you think that many people tend to abuse mood-altering drugs? What do you consider to be the best reasons for stopping or limiting their use?

Activities

1. Good Stress/Bad Stress

Divide students into groups. Ask each group to make up ten cards listing particular life stressors—both good and bad. Groups swap cards and students in each group take turns drawing from the card pile. The drawing student reads the stressor aloud and immediately identifies the stressor as a “good stressor” or “bad stressor” and offers an appropriate positive way of coping with it. The group should discuss the responses.

2. Fictional Characters' Stresses

Have student choose favorite TV or movie characters and detail the stressors in their lives. Ask them how the characters seem to cope with stress (if at all). Do they know any TV or movie characters that provide models of how to relieve stress?

3. Internet: Search for Stress Relief

Have each student use search engines to find health care site sections devoted to stress relief. How is modern health care addressing the psychological side of maintaining good health and stress relief? What advice do they give for relieving stress?

4. Special Sources: Primary Sources

Have students use the library to research and present information on meditation, massage, exercise, or other concrete means of dealing with stress. Ask students to give reports on their findings and use them as a basis for class discussion.

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As you read Chapter 15, write an answer to each question below.

1. What are the major types of stressors that one can encounter in life?

2. What are the three stages of the General Adaptation Syndrome (GAS)? What are their corresponding psychological responses?

3. Describe the Yerkes-Dodson Law.

4. What are the four types of conflict?

5. What is the biopsychosocial model of health?

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Find the best answer for each item. Then circle that answer.

1. This new field of study focuses on the relationship between brain, endocrine system, and immune system.
 - a. psychoneuroimmunology
 - b. psychoendocrinology
 - c. psychosomaticism
 - d. psychorelationology
2. This is an event or circumstance that produces a change in a person's internal or external environment.
 - a. depressant
 - b. stressor
 - c. side effect
 - d. deception
3. What is the term for managing stress by using avoidance, self-deception, aggression, and substance abuse?
 - a. deceptive coping
 - b. addictive coping
 - c. offensive coping
 - d. defensive coping
4. What is the term for "good stress" that can increase anticipation and prepare a person for a challenge?

| | |
|---------------|-------------|
| a. antistress | c. eustress |
| b. unstress | d. exstress |
5. This health model acknowledges a person's body, mind, and social environment in his or her treatment.
 - a. biosocial model
 - b. socialpsycho model
 - c. psychosocial model
 - d. biopsychosocial model
6. This complex system protects the body from bacterial, viral, and foreign substance attack.
 - a. endocrine system
 - b. ecosystem
 - c. lymphatic system
 - d. immune system
7. What is active coping?
 - a. choosing behaviors that support health
 - b. physical means to cope with stress
 - c. actively behaving as if nothing is wrong
 - d. actively treating stress with drugs
8. What is the condition in which a person feels the negative psychological and physiological effects of stress?
 - a. overstress
 - b. overwork
 - c. underuse
 - d. overeffects
9. This is a generalized response to stress that consists of alarm, resistance, and exhaustion.
 - a. general fatigue syndrome
 - b. stress resistance syndrome
 - c. adaptive stress syndrome
 - d. general adaptation syndrome
10. This term means the physical and psychological responses of the body and mind to stressors.
 - a. stress development
 - b. stress reaction
 - c. stress occurrence
 - d. stressor response

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Read each description, and write the letter of the correct term on the line.

- The reaction caused by the release of epinephrine and norepinephrine is called _____.
 - fight or flight
 - run and hide
 - stand and deliver
 - crash and burn
- A conflict in which neither choice is appealing is called _____.
 - approach-avoidance
 - avoidance-avoidance
 - anger-avoidance
 - multiple approach-avoidance
- The first step to coping with stress is to _____.
 - take control
 - get help
 - make changes
 - be aware
- You can help offset the effects of stress by maintaining your _____.
 - happy appearance
 - mental vision
 - physical and mental reserves
 - cognitive strategy
- Stress-related disorders account for _____ of office visits to health care professionals.
 - 20 to 40 percent
 - 60 to 90 percent
 - 45 to 75 percent
 - 50 to 60 percent
- An illness caused or aggravated by some psychological factor is called _____.
 - psychosocial
 - symptomatic
 - psychodramatic
 - psychosomatic
- _____ can have positive benefits when used to deal with stress.
 - Humor
 - Denial
 - Aggression
 - Blame
- _____ is a complex biopsychosocial issue that can lead to lasting changes in brain chemistry.
 - Manipulation
 - Addiction
 - Avoidance
 - Rebalance
- Serotonin, noradrenaline, and dopamine are _____ molecules whose levels are reduced when someone is under stress.
 - up
 - down
 - neutral
 - stress
- Using mood-altering drugs can bring about a condition known as _____ in which a user "crashes" regularly.
 - retreat
 - restart
 - rebound
 - reprieve

Essay Question

Choose someone from your life who could serve as a positive role model for handling the effects of stress. What does this person do to cope, and why are the strategies effective?