



# Questions AND Answers

Fifth Edition

A Guide to Fitness and Wellness





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Fifth Edition

A Guide to Fitness and Wellness

Gary Liguori  
Sandra Carroll

Mc  
Graw  
Hill





## QUESTIONS AND ANSWERS: A GUIDE TO FITNESS AND WELLNESS, FIFTH EDITION

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Product Development Manager: *Dawn Groundwater*

Product Developer: *Susan Messer*

Senior Marketing Manager: *Meredith Leo*

Content Project Managers: *Mary E. Powers (core), Katie Reuter (assessment)*

Buyer: *Laura Fuller*

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# Preface

## Real Students' Questions; Practical, Research-Based Answers

*Questions and Answers* is built on questions—real questions about real health and wellness issues collected from real students at both 2- and 4-year schools across the United States. In responding to these student inquiries, authors Gary Liguori and Sandra Carroll-Cobb combine the latest science-based knowledge with practical guidance on concrete actions students can take now to improve their fitness and wellness.

*Questions and Answers's* active learning approach includes a focus on behavior change and the latest research and science.

## FOCUS ON BEHAVIOR CHANGE

*Questions and Answers's* results-centered pedagogy ensures that the content of each chapter works toward the larger goal of making students active participants in their own life-learning. Critical thinking questions and calls to action prompt students to evaluate the content and connect it to their own experiences.

Online video case studies follow real college students attempting to change their behavior and prompt readers to apply lessons from these experiences to their own behavior-change goals. A series of lab activities provide tracking tools and self-assessment forms that can be completed in print or online.

## LATEST RESEARCH AND SCIENCE

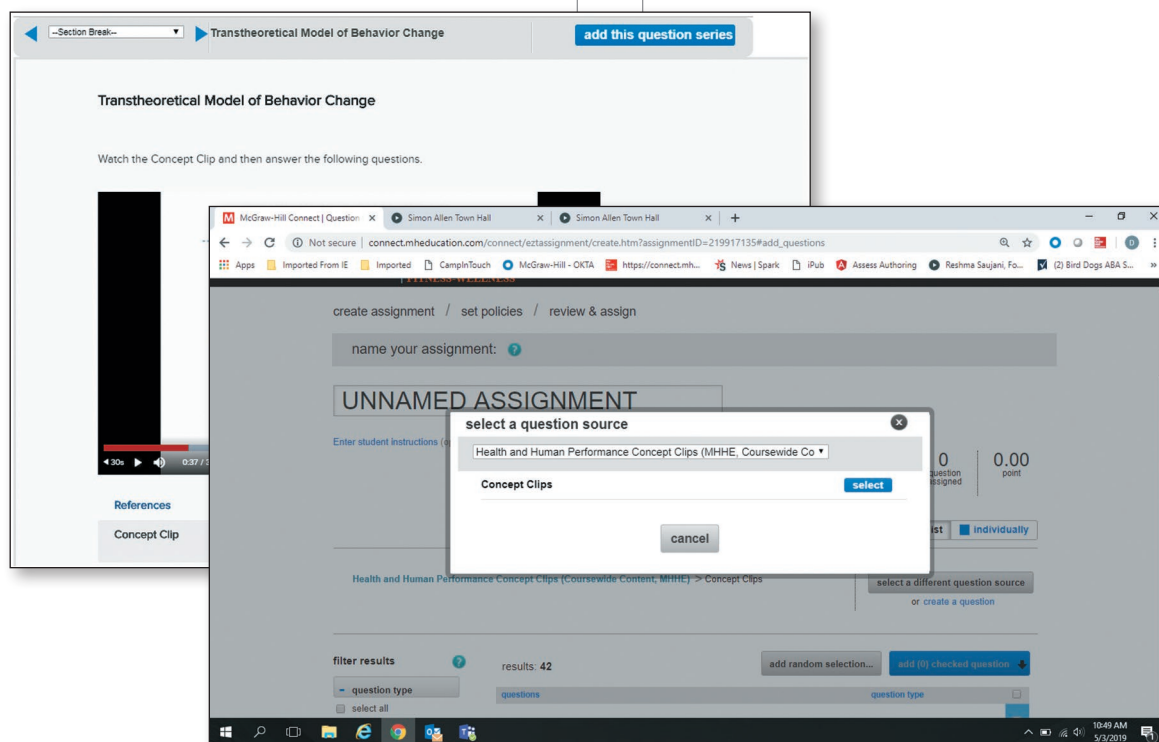
The Fifth Edition features new research-based coverage of the use of digital technology, including new Tech Tips in every chapter that help students take advantage of apps and tech-based devices that will help them reach their fitness and wellness goals. Additionally, every chapter has been updated to reflect current scientific thinking, data, and statistics from such authoritative sources as the Centers for Disease Control and Prevention, the American Cancer Society, the American Heart Association, the U.S. Food and Drug Administration, and the U.S. Department of Agriculture.



## Connect Is Proven Effective

**McGraw-Hill connect** McGraw-Hill Connect® is a digital teaching and learning environment that improves performance over a variety of critical outcomes; it is easy to use, and it is proven effective. Connect® empowers students by continually adapting to deliver precisely what they need, when they need it, and how they need it, so your class time is more engaging and effective. Connect for *Questions and Answers* offers a wealth of interactive online content, including fitness and wellness labs and self-assessments, video activities, and practice quizzes with immediate feedback.

New **Concept Clips** on sleep stages and cycles, effects of alcohol use, and food choices and serving sizes were developed for the Fifth Edition. Assignable and assessable through Connect, Concept Clips use colorful animation and audio narration to promote student comprehension in an easy to understand, step-by-step presentation.



Ten new NewsFlash activities on topics ranging from suicide prevention to weight management tie current events to fitness and wellness concepts. After interacting with a contemporary news story, students are assessed on their understanding and their ability to make the connections between real-life events and course content.

Finally, a Dietary Analysis Tool called **NutritionCalc Plus** provides a suite of powerful dietary self-assessment tools that help students track their food intake and activity and analyze their diet and health goals. Students and instructors can trust the reliability of the ESHA database

while interacting with a robust selection of reports. This tool is provided at no additional charge inside Connect for *Questions and Answers*.

## PERSONALIZED LEARNING

Available within Connect, SmartBook® makes study time as productive and efficient as possible by identifying and closing knowledge gaps. SmartBook identifies what an individual student knows and doesn't know based on the student's confidence level, responses to questions, and other factors.

SmartBook builds an optimal, personalized learning path for each student, so students spend less time on concepts they already understand and more time on those they don't. As a student engages with SmartBook, the reading experience continuously adapts by highlighting the most impactful content that person needs to learn at that moment. This ensures that every minute spent with SmartBook is returned to the student as the most value-added minute possible. The result? More confidence, better grades, and greater success.

New to this edition, SmartBook is now optimized for phones and tablets. Its interactive features are also accessible for students with disabilities. Just like our new ebook and the ReadAnywhere app, SmartBook is available both online and offline.

## PREPARE STUDENTS FOR HIGHER LEVEL THINKING

Application-Based Activities are highly interactive, automatically graded, online learn-by-doing exercises that provide students a safe space to apply their knowledge and problem-solving

skills to real-world scenarios. Each scenario addresses key concepts and skills that students must use to work through and solve course-specific problems, resulting in improved critical thinking and development of behavior change skills.

## TRUSTED SERVICE AND SUPPORT

- Connect integrates with your LMS to provide single sign-on and automatic syncing of grades. Integration with Blackboard®, D2L®, and Canvas also provides automatic syncing of the course calendar and assignment-level linking.
- Connect offers comprehensive service, support, and training throughout every phase of your implementation. If you're looking for some guidance on how to use Connect, or want to learn tips and tricks from super users, you can find tutorials as you work. Our Digital Faculty Consultants and Student Ambassadors offer insight into how to achieve the results you want with Connect.  
[www.mheducation.com/connect](http://www.mheducation.com/connect)

## Better Data, Smarter Revision, Improved Results

Students helped inform the revision strategy of *Questions and Answers*:

**Step 1.** Over two years, data points showing concepts that caused students the most difficulty were collected anonymously from the Connect Fitness and Wellness SmartBook product.

**Step 2.** The data from SmartBook were provided to the authors in the form of a *heat map*, which graphically illustrated “hot spots” in the text that affected student learning (see below).

354 CHAPTER 10 | Stress

86 %  
0:25  
55 An early model of how chronic stress affects health is the **general adaptation syndrome (GAS)**, proposed by researcher Hans Selye. This model has three stages:

- **Alarm reaction:** The acute reaction to a stressor (fight or flight)
- **Resistance:** The body's attempt to adapt to the demands of a persistent stressor (such as negative work environment, chronic physical pain, care-giving, unhappy relationship)
- **Exhaustion:** The state of impaired functioning that occurs if a persistent stressor exhausts the body's resources for coping

### MYTH or FACT?

Ulcers are caused by stress.

WATCH ONLINE

**general adaptation syndrome (GAS)** A model of the body's response to chronic stress; the three phases are alarm (fight-or-flight response), resistance, and exhaustion.

49 %  
0:14  
14 **eustress** A positive stressor that enhances physical or mental functioning. It is typically short-term and may lead to growth or well-being.

69 %  
0:17  
3438 **distress** A negative stressor that causes emotional pain, anxiety, or injury; it may be short- or long-term and cause anxiety and other unpleasant feelings.

**allostatic load** Cumulative physical damage of chronic exposure to the stress response, especially

Selye's model also distinguishes between positive and negative stress. A positive stressor, or **eustress**, enhances physical or mental functioning (for example, strength training or a challenging school project). Negative stressors, or **distress** (for example, death of a family member or job loss), can cause emotional pain, anxiety, or injury, especially if the stress isn't resolved in an effective manner. Chronic exhaustion and distress are associated with increased risk for health problems.

Recent research has focused on **allostatic load**, which is the cumulative physical damage of chronic exposure to stress hormones. A

stressors, poor coping with stressors, inability to shut down the stress response, or an uneven stress response in different body systems. When people's allostatic load exceeds their ability to adapt and cope, they are at increased risk for a variety of health problems.<sup>14</sup>

### Underlying Factors in Stress-Related Health Problems

**Q** How does stress tear you down physically?

The links between stress and illness can be difficult to pinpoint because there is no standard measure of stress and there are significant individual differences in how people

react to stressors and cope with stress. Two pathways of causality can be examined: behavioral and biological.

While under stress, people may engage in behaviors that either enhance or hurt their health. Negative health behaviors associated with stress include poor sleep, little or no physical activity, poor eating habits, smoking or drinking more, and avoiding regular or symptom-specific medical care. People who are stressed and engage in unhealthy behaviors are at elevated risk for developing health problems, having worse outcomes from disease, and even experiencing higher rates of premature mortality.

As described earlier, the physiological response to a stressor involves the release of cortisol, adrenaline, and other hormones that control the fight-or-flight response. The actions of these hormones are beneficial for acute stress but can cause problems if a person is exposed to frequent or chronic stressors. Concentrations of the hormones may build up if the body doesn't have the time or resources to recover. These hormones raise blood pressure and cholesterol levels, alter glucose metabolism, and suppress the immune system. They also cause an inflammatory response in the body, and chronic inflammation has been linked to many health problems, including cardiovascular disease, allergies, and certain forms of cancer.

**Step 3.** The authors used the heat map data to refine the content and reinforce student comprehension in the new edition. Additional quiz questions and assignable activities were created for use in Connect Fitness and Wellness to further support student success.

**Result.** Because the heat map gave the authors empirically based feedback at the paragraph and even sentence level, they developed the new edition using precise student data that pinpointed concepts that caused students the most difficulty.



## Content Changes by Chapter

As mentioned earlier, the student performance heat map data from SmartBook was used to revise the text for greater clarity, particularly in Chapters 7, 8, and 13. And consistent with previous editions, the content includes updated statistics, figures, and data throughout. Chapter-by-chapter changes are as follows:

### CHAPTER 1

- Updated Research Brief box: Healthy Living Counts: Every Choice Matters
- Updated Fast Facts box: Driving Distracted
- Updated Fast Facts box: Smoking by the Numbers
- New resource for *Healthy People 2030*
- Expanded definitions related to new *Physical Activity Guidelines for Americans*
- Updated lab to reflect new *Physical Activity Guidelines for Americans*

### CHAPTER 2

- Updated Research Brief box: Self-Control Can Be Contagious
- New Research Brief box: Homework—Is It Really Worth It?
- Updated Fast Facts box: Buddy Up for Behavior Change
- Revised, clearer figure showing the stages of behavior change

### CHAPTER 3

- Updated Research Brief box: Exercise Makes You Smarter
- Updated Research Brief box: Exercise Makes You Younger
- Updated Living Well box: Living with a Disability
- Incorporation of new *Physical Activity Guidelines for Americans*

### CHAPTER 4

- New Tech Tips, Fast Facts, and Research Brief boxes
- Greater clarity around the role of stroke volume and cardiac output
- Greater clarity on the energy systems
- Integration of the 2018 *Physical Activity Guidelines for Americans*

### CHAPTER 5

- New Tech Tips, Fast Facts, and Research Brief boxes
- Increased emphasis on HIIT
- Increased information on body-weight training
- Greater clarity around muscle fiber types and how training affects each

### CHAPTER 6

- New Fast Facts box: Musically Inclined
- Clarification of the concept of static stretching
- Updated Research Brief box: Heavy Back Pack, Heavy Price

### CHAPTER 7

- Updated Research Brief box: Beating the “Fatso” Gene
- Updated Fast Facts box: Too Few Zs Can Lead to Fs
- Clarification of links among biological sex, metabolic rate, and patterns of fat storage
- Updated Research Brief box: Screen Time and Waistline
- Updated Fast Facts box: “Fit or Fat” or “Fit and Fat”?
- Updated discussion of body image and its link with media portrayals
- Updated Research Brief box: You Are What You Drink

### CHAPTER 8

- New Tech Tips, Fast Facts, and Research Brief boxes
- New quick-reference guide table explaining the DRIs
- Updated information on consumer awareness for supplements

### CHAPTER 9

- New Tech Tips, Fast Facts, and Research Brief boxes
- Latest updates on fish consumption and mercury risk
- Latest updates on genetically modified foods (GMO)
- Latest updates on intermittent fasting

### CHAPTER 10

- New Tech Tips, Fast Facts, and Research Brief boxes
- Updates to most and least stressed cities
- New feature on smartphone stress
- New data on the increasing rates of mental stress in young adults

## CHAPTER 11

- Updated Wellness Strategies box: Protecting Your Skin from the Sun
- Updated Research Brief box: Sitting Disease
- Updated cancer screening guidelines
- Updated lab resources

## CHAPTER 12

- New Tech Tips, Fast Facts, and Research Brief boxes
- Newest FDA information on HPV vaccinations
- New data on rates of STIs
- New data on depression and associated risk of infectious disease
- Updates on mixing energy drinks and alcohol

## CHAPTER 13

- New Tech Tips, Fast Facts, and Research Brief boxes
- Latest updates on the risks of vaping
- Clarification of concepts of dependency and addiction
- Updated information on understanding blood alcohol content
- Updated rates for smoking, alcohol, illicit drugs, and more

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Test Builder enables instructors to:

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2. Easily pinpoint the most relevant content through robust filtering options
3. Manipulate the order of questions or scramble questions and/or answers
4. Pin questions to a specific location within a test
5. Determine your preferred treatment of algorithmic questions
6. Choose the layout and spacing
7. Add instructions and configure default settings

- **PowerPoint Presentation** The PowerPoint presentations include key points and supporting images. The presentations are now WCAG compliant.
- **Image Gallery** The Image Gallery features the complete set of downloadable figures and tables from the text. These can be embedded into PowerPoint slides.



# About the Authors



Gary Liguori, PhD, is the founding dean of the College of Health Sciences at the University of Rhode Island, coordinating dean of the Academic Health Collaborative, and Professor of Kinesiology. Gary received his PhD from North Dakota State University, MS from East

Stroudsburg University, and BS from the University of Central Missouri. Gary is a fellow of the American College of Sports Medicine (ACSM). He has served on the Executive Council of the ACSM Committee of Certification and Registry Board (CCRB) and on the Executive Council of the ACSM Publications Committee. Gary was the senior editor of the first edition of *ACSM's Resources for the Health Fitness Specialist*, an associate editor for *ACSM's Guidelines for Exercise Testing and Prescription* (10th edition), and the senior editor of both *ACSM's Health-Related Physical Fitness Assessment Manual* (5th edition) and *ACSM's flagship book, Guidelines for Exercise Testing and Prescription* (11th edition). Gary has been a keynote presenter at venues around the world, published more than 35 peer-reviewed articles, and sits on the advisory board of numerous health, wellness, and medical organizations.



Sandra Carroll, EdD, has been teaching health and physical education classes in schools, businesses, and medical facilities for nearly 30 years. She received her EdD from Texas A&M University–Commerce. Dr. Carroll has presented at state, regional, and national conventions and has served

the national committees of several professional organizations. Recently at the University of Alaska Anchorage for 15 years, Dr. Carroll served as faculty, associate dean, and dean. During this time, she remained active with health and physical activity programs throughout the community and state serving on the Conoco-Phillips Healthy Futures Advisory Board, as a statewide trainer for the Alaska Department of Education & Early Development Team Nutrition grant, as a PEP grant evaluator for the Anchorage School District, and as a contributor to the Alaska School Health and Safety Plan. She was active on the Steering Committee for the State of Alaska Cardiovascular Health Coalition (Take Heart Alaska); the Executive Board of the Alaska Association for Health, Physical Education, Recreation, and Dance; and the Anchorage Community YMCA Advisory Board. Dr. Carroll now serves as dean of Science and Health Sciences at Kilgore College.

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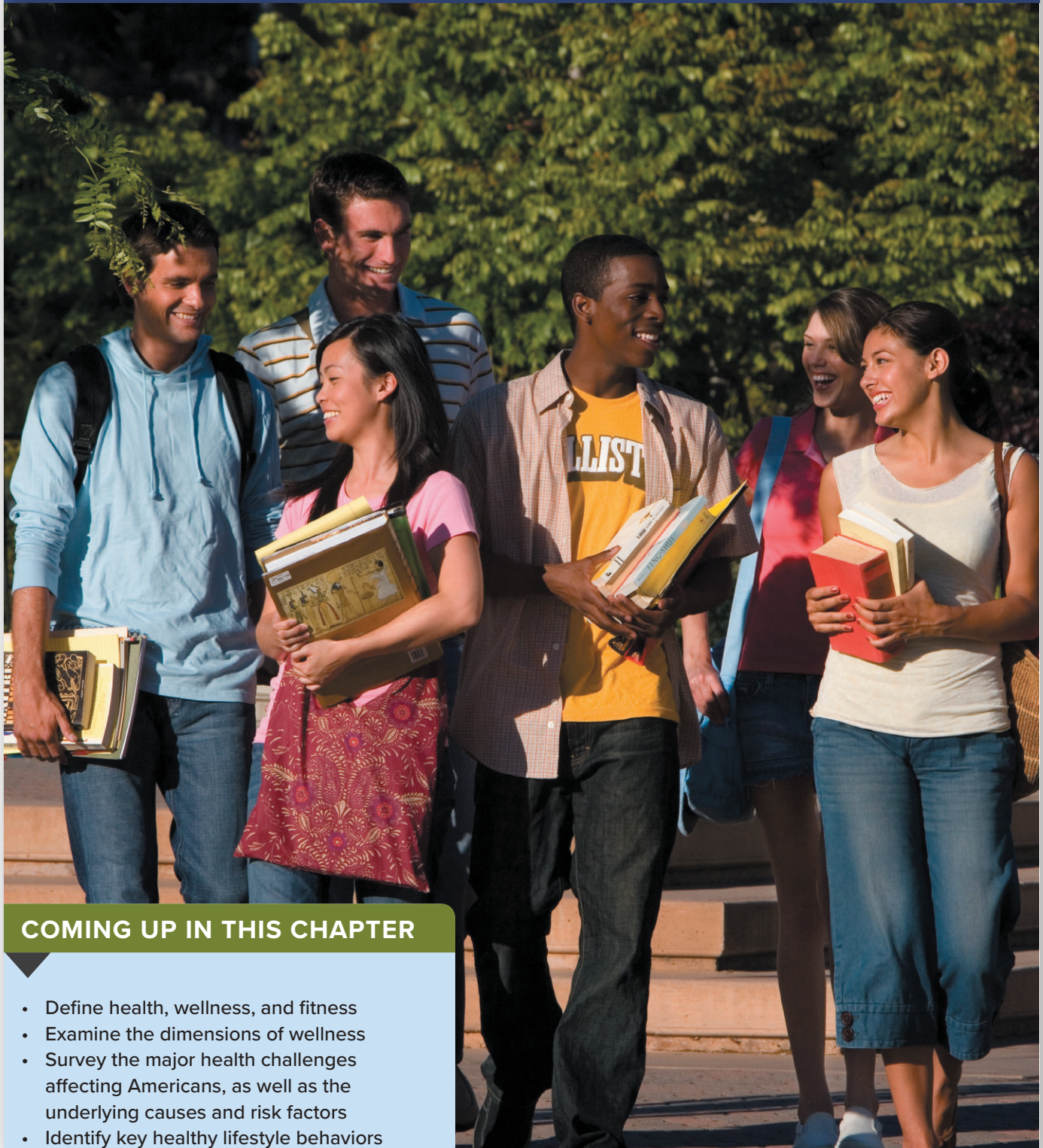
David Barrett, *Normandale Community College*  
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Sharon Jalene, *University of Nevada, Las Vegas*  
Chet Martin, *Tarleton State University*



# Introduction to Health, Wellness, and Fitness

# 1



## COMING UP IN THIS CHAPTER

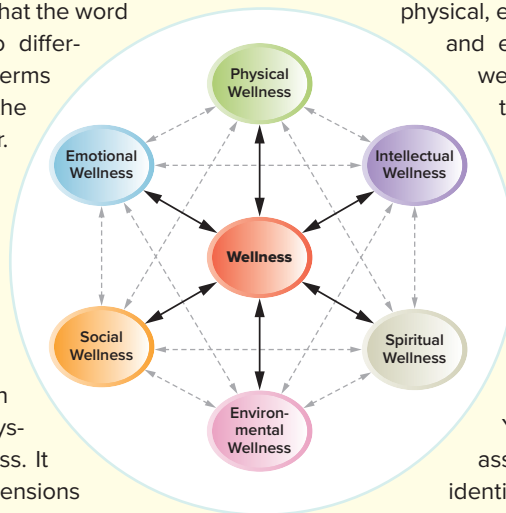
- Define health, wellness, and fitness
- Examine the dimensions of wellness
- Survey the major health challenges affecting Americans, as well as the underlying causes and risk factors
- Identify key healthy lifestyle behaviors
- Assess your personal wellness status

Juice Images/Getty Images



Ask 10 people what health is, and you'll probably get 10 different answers. The truth is that the word *health* means different things to different people. If you throw in the terms *wellness* and *physical fitness*, the definitions may get even trickier. To gain a sound understanding of your own health and wellness, it's essential to clarify these concepts and to learn about the factors that influence them.

This book introduces the concept of health and surveys recommended health habits. You'll learn that wellness is more than just physical health or the absence of illness. It encompasses all six of the dimensions



illustrated in the Wellness Integrator figure, including physical, emotional, intellectual, social, spiritual, and environmental wellness. To be truly well, you must develop and balance all the aspects of wellness.

This first chapter provides a framework for thinking about health and wellness—their dimensions and their connections to your behavior, environment, goals, and aspirations. We'll also look at key health challenges, both general and those particularly affecting college students. You'll also have the opportunity to assess your own wellness status and to identify potential areas for improvement.

## Personal Health and Wellness

Although people talk a great deal about health and wellness, there are no universally accepted definitions. However, the various definitions of these closely related concepts share many characteristics.

### Evolving Definitions of Health

**Q** I haven't been sick in over a year. Can I rate myself as healthy?

That would depend on your definition of *healthy*. For many people, health is something they think about only if there is a sudden, noticeable change for the worse—for example, an illness or injury. From this perspective, health is an either-or state: You are either healthy or unhealthy, with no middle ground. If you think about health in this way, you'll miss important opportunities to improve your health and well-being throughout your life.

*Health* comes from the Old English word *hoelth*, meaning “a state of being sound and whole,” generally in reference to the body. The ancient Greek physician Hippocrates was one of the first credited with using observation and inquiry to assess health status—rather than considering health to be a divine gift. He and other physicians of his time believed health was a condition of balance or equilibrium; therefore, ill health or disease was caused by imbalance among elements in the body. Much of Hippocrates's teachings were aimed at preventing illness by promoting “healthy balance” through means such as good hygiene, exercise, eating well, and moderation in all things—ideas that are still important today.

Many other visions and definitions of health have surfaced over the years. A widely used modern definition comes from the constitution of the World Health Organization (WHO): “Health is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.”<sup>1</sup> This definition emphasizes the important idea that health is more than just the absence of disease. However, some critics point out that *complete* well-being is unrealistic for most people and that health is not a single state but rather a dynamic condition.

Over the years, some professionals have modified and expanded the WHO definition to include the idea of health status as a continuum.<sup>2</sup> That is the framework we'll use in this book: **Health** is a condition with multiple dimensions that falls on a continuum from negative health, characterized by illness and premature death, to positive health, characterized by the capacity to enjoy life and to withstand life's challenges.

At different times, your health status may be on different points on the continuum—and it may be moving in either a positive or a negative direction (Figure 1-1). Many young adults fall into the positive half of the continuum, experiencing minor, short-term illnesses interspersed with periods of no symptoms. However, in terms of other factors—habits that influence future health risks and current subjective feelings of mood, energy level, and sense of well-being—they may not feel “healthy” at all. It is in these areas that the concept of wellness can provide a useful framework for action.

**health** A condition with multiple dimensions that falls on a continuum from negative health, characterized by illness and premature death, to positive health, characterized by the capacity to enjoy life and to withstand life's challenges.

## Actively Working Toward Wellness

**Q** Are health and wellness the same?

Health and wellness are closely related, and some people use the terms interchangeably. In this book, we define the term *wellness* differently from *health*. **Wellness** is a more personalized concept than health and has several additional key characteristics:

- Wellness has multiple, clearly defined dimensions; balance is very important, but you can be at a different level of wellness for each dimension (see the next section).
- Wellness is an active process, meaning you can always work to improve your wellness status.
- Individual responsibility and choice are critical wellness components; by becoming aware of the factors that affect you and by making appropriate choices, you can significantly affect your level of wellness.
- Wellness status is a reflection of your own perceptions about your health and well-being.

Two people at similar places on the health continuum may perceive their wellness status very differently. An individual

**wellness** An active process of adopting patterns of behavior that can improve an individual's health and perceptions of well-being and quality of life in terms of multiple, intertwined dimensions.

with a severe illness or impairment may still have a strong sense of well-being and may be living up to her or his full wellness potential. Wellness is determined by the decisions people make about how to live their lives with vitality and meaning.

## Discovering Dimensions of Wellness

**Q** Can you be physically unfit but still be happy and social at the same time?

Yes, you can. This question gets at a key aspect of wellness—that there are different dimensions, and although the dimensions are interrelated, you can be at a different level of wellness for each.

## Behavior Change Challenge

### Integrating the Dimensions of Wellness

Erika is a 23-year-old student and the mother of two young children. She experienced an abusive marriage and wants to make changes in her life for herself and her children.



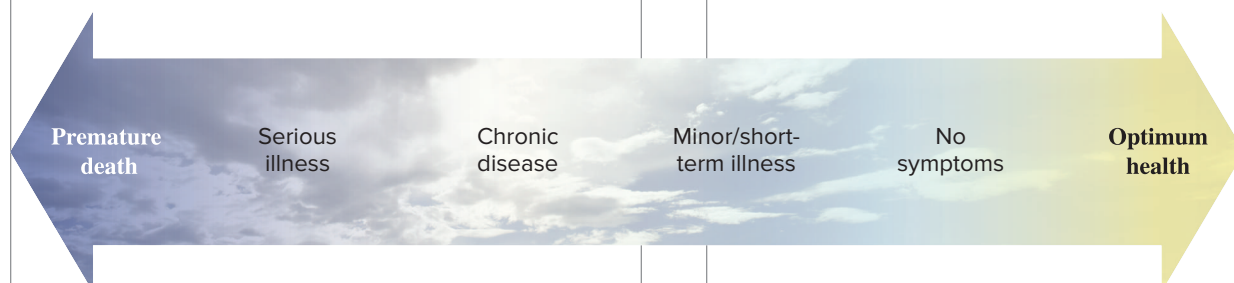
Brella Productions/McGraw-Hill Education

Erika's goal is to complete a 5K run, and while training, she hopes to return to her pre-marriage weight. View the video within the Connect assignment to learn more about Erika's story and her behavior change plan and strategies. Think about how the various dimensions of wellness might influence her plan. As you watch, consider the following questions:

- How does Erika go about developing her plan? What social and environmental resources does she use? What similar types of resources are available to help you in your mission to change your behavior?
- What intellectual and other strategies does Erika use to stay motivated? What role does self-esteem play? Which of Erika's experiences will help you make positive behavior changes and improve your wellness?



A physically unfit person might not rate highly in the physical dimension of wellness but may fare much better in other dimensions, such as social and intellectual wellness. On the flip side, someone who is very fit and the picture of what we'd call physical health may rate poorly in terms of the other dimensions of wellness. True wellness requires addressing *all* the dimensions. Let's take a closer look at characteristics and behaviors associated with each of the six dimensions in our wellness model.



**Figure 1-1** The health continuum. At the negative end of the continuum are serious illness and premature death. At the positive end of the continuum is the capacity to enjoy life and to withstand challenges.

**Source:** Adapted from Miller, J. (2005). Wellness: The history and development of a concept. *Spektrum Freiziet*, 27, 84–106.

Photo: mevans/E+/Getty Images

## Fast Facts

### No April Fools

April 7 is World Health Day, the anniversary of the day in 1948 when the World Health Organization's constitution was adopted. On this date, thousands of events around the globe demonstrate the importance of health for happy and productive lives. Each year, World Health Day highlights a different area of WHO concern. Recent themes have included depression, diabetes, food safety, hypertension, universal health coverage, and the effects of urbanization on health. Visit <http://www.who.int/world-health-day/en/> to learn more.



Photodisc/Getty Images

**PHYSICAL WELLNESS.** Mention physical wellness, and many will picture someone who is active and looks fit. However, physical wellness isn't only about physical fitness or appearance. **Physical wellness** is the complete physical condition and functioning of the body—both the visible aspects, such as how fit one looks, and those that are not, such as blood pressure and bone density. Throughout your life, physical wellness is reflected in your ability to accomplish your daily activities and to care for yourself.

Regular physical activity and healthy eating are the foundation behaviors of physical wellness, but they are just a beginning. Ask yourself these questions:

- Do I get enough sleep?
- Do I use alcohol and drugs responsibly?
- Do I make intentional and responsible sexual choices?
- Do I use sunscreen?
- Do I practice safe driving?
- Do I manage injuries and illnesses appropriately, practice self-care, and seek medical assistance when necessary?

Maintaining physical wellness means making informed health decisions on many fronts and offers many opportunities for improving your quality of life.

How does physical fitness relate to physical wellness?

**Physical fitness** is the ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and respond to emergencies.<sup>3</sup> This definition ties closely with wellness and quality of life. But fitness also has measurable components, including muscle strength and joint flexibility. Your level of fitness depends on specific physical attributes, including the functioning of your heart, lungs, blood vessels, and muscles. Importantly, good physical fitness doesn't equal good physical wellness; fitness is just one piece of physical wellness,



Wellness is determined by the choices people make about how to live their lives with energy and meaning. Someone with a physical impairment can achieve a high level of wellness.

Eugene Hoshkio/AP Images

and a person with a high fitness level can have serious risks to his or her physical health. For example, being physically fit doesn't prevent the damage that smoking does to lungs, arteries, and other body systems.

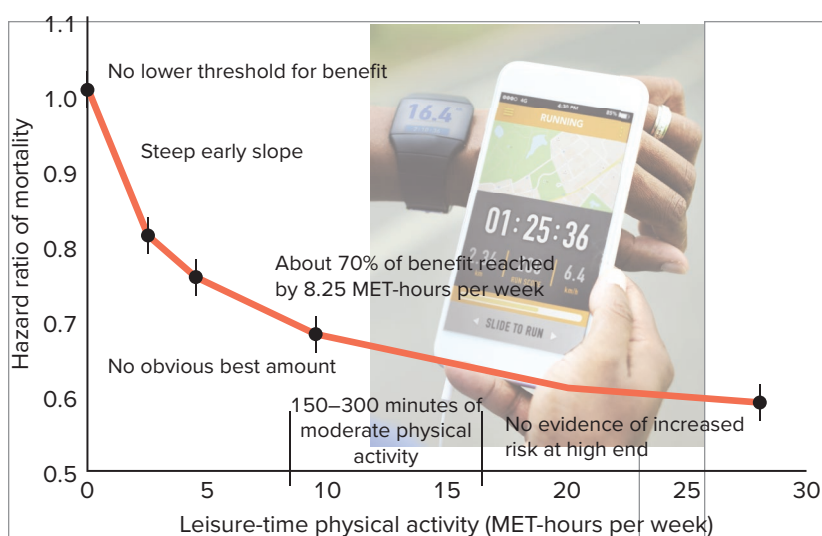
For physical wellness, you should strive for a fitness level that meets your goals for daily functioning and recreational pursuits. A certain level of fitness is needed to reap its many associated health benefits, such as reduced risk of chronic diseases like heart disease and cancer, but you don't need an extremely high level of fitness for health and wellness. Inactive people can reap many of the benefits of fitness when they add a modest amount of activity to their daily routine (Figure 1-2).

Some individuals strive for high fitness because they have specific goals related to physical performance. For example, ballet dancers and gymnasts need a much greater degree of joint flexibility than the typical person in order to perform with excellence. Don't be discouraged from physical activity because you think you must exercise very intensely or become extremely fit

**physical wellness** Dimension of wellness referring to the complete physical condition and functioning of the body; focuses on behaviors that support physical aspects of health, including diet, exercise, sleep, stress management, and self-care.

**physical fitness** The ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and respond to emergencies.





**Figure 1-2** The risk of dying prematurely declines as people become physically active.

**Note:** Some activities are higher intensity because they require more energy. Energy expenditure is expressed in multiples of the metabolic equivalent of task (MET).

- 1 MET = energy expended while sitting at rest
- <3 MET = light intensity (leisurely walking, light household chores)
- 3 to <6 MET = moderate intensity (brisk walking, raking the yard)
- >6 MET = vigorous intensity (jogging, shoveling snow)

**Source:** U.S. Department of Health and Human Services. (2018). *Physical Activity Guidelines for Americans, 2nd ed.* Washington, DC: Department of Health and Human Services.

Photo: Rawpixel.com/Shutterstock

in order to obtain wellness benefits. Also bear in mind that physical activity has many immediate benefits, including improved mood, reduced stress, and increased energy level.

Although all physical activity can affect wellness, not all activity builds physical fitness—for example, for most people, just walking down the hall doesn't increase measures of fitness. That usually requires **exercise**—planned, structured, repetitive body movements specifically designed to develop physical fitness. You'll learn much more about physical activity, exercise, and physical fitness in later chapters, along with details on how to put together an exercise program that is right for you.

**Research Tidbit:** Physical activity reduces many major mortality risk factors including various forms of heart disease, diabetes, and cancer. Results of several studies suggest that regular physical activity is associated with an increase in life expectancy—from 0.4 to as much as 6.9 years.<sup>4</sup>

**EMOTIONAL WELLNESS.** Emotional wellness is based on your ability to carry on your day-to-day activities while understanding your feelings and expressing them in constructive and appropriate ways. It involves accepting your feelings, monitoring your emotional reactions, and recognizing your strengths and limitations. It is also exemplified by your ability to cope with, manage, and adapt to normal stressors. The following qualities are associated with emotional wellness:

- Optimism
- Enthusiasm
- Trust
- Self-confidence

- Self-acceptance
- Resiliency
- Self-esteem

People with a high level of emotional wellness have a generally positive outlook and strive to be content. They demonstrate stability, persistence, positivity, and an inclination to weather challenges. They accept responsibility, face problems, and effectively progress toward solutions. They can live and work autonomously while also reaching out to others. They are willing to seek help from other people or resources if needed.

**Research Tidbit:** There is a significant association between stress and mortality. The association holds true regardless of age, sex, occupational class, body mass index, systolic blood pressure, diabetes, physical activity, smoking, or alcohol consumption.<sup>5</sup>

**INTELLECTUAL WELLNESS.** Intellectual wellness is characterized by the ability to think logically and solve problems in order to meet life's challenges successfully. An active and engaged mind is vital for making sound choices related to all the dimensions of wellness. Do you relish learning new skills, solving problems, and exploring ideas? People who enjoy a high

level of intellectual wellness are creative, open to new ideas, and motivated to learn new information and new skills. They actively seek ways to challenge their minds and pursue intellectual growth. They can apply critical thinking as they gather and evaluate information and use it to make sound decisions.

Every health consumer should know how to use critical thinking to evaluate the quality of health and wellness information; see the box "Finding Sound Health and Wellness Information" later in the chapter for more information.

**Research Tidbit:** Research shows that an additional 4 years of education lowers 5-year mortality by 1.8 percentage points; it also reduces the risk of heart disease by 2.16 percentage points, and the risk of diabetes by 1.3 percentage points.<sup>6</sup>

**SOCIAL WELLNESS.** Human beings are social by nature—some more than others, but all of us are social creatures. **Social wellness** is defined by the ability to develop and maintain positive, healthy, satisfying interpersonal relationships and appropriate support networks. This includes building relationships with individuals and groups

**exercise** Planned, structured, repetitive body movements specifically designed to develop physical fitness.

**emotional wellness** Dimension of wellness that focuses on one's ability to manage and express emotions in constructive and appropriate ways.

**intellectual wellness** Dimension of wellness that focuses on developing and enhancing one's knowledge base and critical thinking, decision-making, and problem-solving skills.

**social wellness** Dimension of wellness that focuses on one's ability to develop and maintain positive, healthy, satisfying interpersonal relationships and appropriate support networks.

## Research Brief

### Social Networking and Social Wellness

Research on social media is still relatively new, and the results are a bit mixed. Surprisingly, though, for the most part, research indicates social media sites have a positive influence on college students' social and emotional wellness. One study suggests Facebook use provides opportunities to develop and maintain connectedness and is "associated with lower depression and anxiety and greater satisfaction with life." Another study examined Facebook use among college students specifically in terms of motive toward (1) relationship formation and (2) relationship maintenance. The results are interesting:

- Males did not differ significantly from females in the level of Facebook activities. However, levels of use were significantly higher among first-year students and substantially lower among older students—particularly fourth-year, who use social media less often overall. Fourth-year students also tend to use a broader range of social media rather than concentrating on Facebook.
- Students who had a higher regard for Facebook as a means of finding new relationships showed lower social adjustment and reported a higher level of loneliness, whereas those who had higher regard for Facebook as a means to maintain existing relationships

showed higher social adjustment and reported a lower level of loneliness.

- More frequent electronic interactions were associated with better social adjustment and less loneliness, whereas frequent status updating was associated with poorer social development and a greater sense of loneliness.

#### Analyze and Apply

- Do you know how much time you spend using Facebook or other social media? Try tracking your time to see if you've estimated correctly.
- Do you need to cut back? What are some possible alternatives that could benefit your social wellness?

**Sources:** Grieve, R., et al. (2013). Face-to-face or Facebook: Can social connectedness be derived online? *Computers in Human Behavior*, 29, 604–609; Khairuddin, H., et al. Perceptions of social media impact on social behavior of students: A comparison between students and faculty. In H. Khairuddin et al. (Eds.), *Multigenerational on-line behavior and media use: Concepts, methodologies, tools and applications*. Hershey, PA: IGI Global; Wang, Y., et al. (2015). Coming of age (digitally): An ecological view of social media use among college students. CSCW '15 Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing, Vancouver, BC, Canada, 571–582; Yang, C., & Brown, B. (2013). Motives for using Facebook, patterns of Facebook activities, and late adolescents' social adjustment to college. *Journal of Youth and Adolescence*, 42, 403–416.



Social wellness is exemplified by positive, satisfying interpersonal relationships.

PeopleImages/Getty Images

both inside and outside one's family, as well as contributing to the broader community in which one lives. The ability to communicate effectively and to develop a capacity for intimacy are key elements of social wellness. Do you have friends or family members whom you can confide in and lean on for support? Are people comfortable confiding in you and coming to you

for help? Do you get along with others and communicate with respect, despite differences of opinion or values? Are you a good listener? What do you contribute to the greater community?

**Research Tidbit:** Not only can social relationships affect our mental state, but research also indicates that both the quantity and quality of these relationships have a direct link to measures of physical health, including abdominal obesity, inflammation, and high blood pressure—all of which can affect long-term health and longevity. These effects emerge in childhood and cascade throughout life to foster cumulative advantages or disadvantages in health.<sup>7</sup>

**SPIRITUAL WELLNESS.** Wellness involves more than striving for physical health; it is also a search for meaning, purpose, and fulfillment. **Spiritual wellness** means having a set of values, beliefs, or principles that give meaning and purpose to your life and help guide your choices and actions. Compassion, forgiveness, altruism (unselfish helping of others), tolerance, and the capacity for love are all qualities associated with spiritual wellness. Do the choices you make every day reflect your values and priorities? Or do you sometimes act in ways that conflict with your values?

**spiritual wellness**  
Dimension of wellness that focuses on developing a set of values, beliefs, or principles that give meaning and purpose to life and guide one's actions and choices.



People develop and express spirituality in different ways. For some people, purpose and direction come from organized religion or the belief in a higher power in the universe; they may engage in spiritual practices such as prayer and meditation. Others may express spirituality through the arts, volunteer work, or personal relationships. See the box “It’s Good to Be Good” for more information about the connection between personal wellness and volunteerism.

Spirituality is sometimes considered a controversial part of wellness models, because it touches on issues or beliefs that some people prefer to keep private and that other people feel compelled to share—or at times to press upon others. Even if talking about spirituality or specific religious issues can occasionally make people uncomfortable, spirituality is not a topic to be avoided or a less important part of personal wellness. The fact that many people become so impassioned about spiritual matters speaks to the relevance of spirituality in their lives. Regardless of the controversies and your specific beliefs, spirituality—however you may express it in your own life—is an essential part of your overall well-being. The values, beliefs, and principles you live by are an indispensable part of the whole you. As noted neurologist and psychiatrist Viktor E. Frankl observed, “The spiritual dimension cannot be ignored, for it is what makes us human.”<sup>8</sup>

**Research Tidbit:** In a 35-year clinical study of Harvard graduates, researchers found that those graduates who expressed hope and optimism lived longer and had fewer illnesses in their lifetime.<sup>9</sup>

**ENVIRONMENTAL WELLNESS.** Your own wellness depends on your surroundings. Does your physical environment support your wellness or detract from it? Are there hazards in your environment—toxins such as secondhand smoke and industrial pollution, or a high degree of violence in the local community—that you should be aware of in order to protect yourself? Are there actions you could be taking to make your world a cleaner, safer place?

**Environmental wellness** recognizes the interdependence of your wellness and the condition and livability of your surroundings. You can take steps to make sure your lifestyle is respectful of the environment and helps create sustainable human and ecological communities. Do your choices reflect your awareness of the health of the planet and your place on it? See the box “Why Sustainability Matters—and What You Can Do” for some easy steps to improve your environment.

**Research Tidbit:** A study revealed that psychological well-being, meaningfulness, and vitality were “robustly correlated with connectedness with nature.” The authors suggest that this connectedness is a “personal disposition relevant for environmental as well as human health.”<sup>10</sup>

Assess your wellness status in each of these dimensions by completing Lab Activity 1-2.

**environmental wellness**  
Dimension of wellness that focuses on the condition and livability of the local environment and the planet as a whole.



## Research Brief

### It’s Good to Be Good

Researchers have investigated whether helping others—by participating in organized volunteer work or by providing *instrumental support* (for example, assistance with household or child-care tasks, or finances) to friends or family members—affects the health of the helper. Most studies have found clear benefits for both physical and mental health.

An analysis of multiple research studies examined the volunteer habits of middle-aged and older adults. Researchers found those who were frequent volunteers had significantly reduced mortality (death from any cause). Similar benefits to health and well-being have been found for people of all ages. In another study, researchers investigated the relationship between volunteering and self-reported health and happiness. Results indicate that those who volunteered reported being healthier and happier.

How does helping others improve health? The health benefits may stem from a reduction in the levels and the physiological effects of stress for people who volunteer, including changes in the levels of hormones and certain

brain chemicals. Helping others may also serve to increase empathic emotions. Volunteering provides opportunities for social interaction and support as well as a distraction from one’s own worries. Researchers caution, however, that helping needs to be voluntary and not overwhelming, or it won’t reduce stress.

### Analyze and Apply

- What lesson from the study’s results can you apply to your own life?
- If you can’t commit to being a regular volunteer, what random acts of kindness might you engage in each day to lighten the burden of others?

**Sources:** Borgonovi, F. (2008). Doing well by doing good: The relationship between formal volunteering and self-reported health and happiness. *Social Science & Medicine*, 66(11), 2321–2334; Okun, M., et al. (2013). Volunteering by older adults and risk of mortality: A meta-analysis. *Psychology and Aging*, 28(2), 564–577; Yeung, J., et al. (2018). Volunteering and health benefits in general adults: Cumulative effects and forms. *BMC Public Health*, 18(8), 1–8.

## Wellness Strategies

### Why Sustainability Matters—and What You Can Do



What is sustainability? Does it mean we're supposed to recycle everything?

Recycling is a part of sustainability, but sustainability is about more than just recycling. Sustainability rests on the idea that our very survival and well-being depend on our natural environment. Sustainability is crucial for ensuring that we have, and will continue to have, the water and other natural resources we need to support human health and our environment.

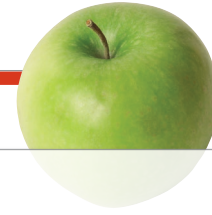
You can do many things to help the environment. Scan the following lists. Some of these practices may be beyond your ability right now, but even a few changes can make a difference.

#### In the dorm or at home

- Use energy-saving compact fluorescent or LED bulbs; use natural rather than electric light when possible.
- Turn off unnecessary electrical devices when you leave a room for more than 15 minutes; unplug appliances and electronics when not in use.
- Enable your computer to go into “sleep mode” when not in use; turn off your computer overnight.
- Unplug your cell phone charger when charging is complete.
- Pull down window shades at night in the winter and during the day in the summer.
- Purchase a water filter and refill a reusable container instead of buying cases of bottled water.
- Eat locally grown foods.
- Buy inexpensive cloth napkins and washable mugs and plates rather than disposable ones.
- Turn off and defrost the refrigerator over long breaks.
- Take shorter showers; don't run the water before getting in, and turn off the water when lathering.
- Turn off the faucet while brushing your teeth and shaving.



RandomGirl/Getty Images



- Report or repair leaky faucets and shower heads.
- Don't use the toilet as a garbage bin. Toss tissues and waste in trash cans.
- Only wash full laundry loads, and use cold water.
- Air-dry laundered clothing whenever possible.
- Use products containing the least amount of bleaches, dyes, and fragrances.

#### In the classroom or office

- Use refillable binders instead of notebooks or use a laptop.
- Recycle paper and use recycled paper.
- Take notes on both sides of paper, and use both sides when printing and photocopying.
- If it's OK with your instructor, hand in assignments by printing on both sides of the page.
- Save any single-sided pages that you've printed and use the backs to print out drafts and other things you don't have to turn in.
- Use your printer's low-quality setting to save ink.
- Bookmark Web pages instead of printing them for research.
- Edit on-screen, not on paper.
- Use e-mail to minimize paper use.
- Advertise events using e-mail and by posting rather than papering the campus.

#### In the car

- Drive less, especially during peak traffic periods or on hot days.
- Use public transportation, walk, or ride a bike.
- Shop by phone, mail, or the Internet.
- Combine your errands into one trip.
- Carpool. Sharing rides reduces emissions.
- Avoid revving or idling engine over 30 seconds.
- Avoid waiting in long drive-thru lines at fast-food restaurants or banks. Park your car and go in.
- Accelerate gradually; maintain speed limit and use cruise control on the highway.
- Follow your owner's manual on recommendations for maximum economic efficiency.
- Use an energy-conserving (EC) grade of motor oil.
- Minimize air conditioning use.
- Get regular engine tune-ups and car maintenance checks.
- Use EPA-certified facilities for air conditioner repairs.
- Replace your car's air filter and oil regularly.
- Keep your tires properly inflated and aligned.
- When gassing up, avoid spilling gas and don't “top off” the tank.

(Continued)

*(Continued)***In the store**

- Use a reusable tote bag instead of a plastic or paper bag for shopping.
- Purchase durable rather than disposable products.
- If you get a plastic bag, reuse it.
- Go vintage. Buying used clothing saves money, decreases the use of resources to make clothing, and reduces the problem of sweatshops.
- Buy used furniture and household articles.

- Buy recycled products, such as paper.
- Use environmentally safe cleaning products.

What other steps can you take to help the environment?

**Sources:** Adapted from U.S. Environmental Protection Agency. (n.d.). What is sustainability? <http://www.epa.gov/sustainability/basicinfo.htm>; U.S. Environmental Protection Agency. (n.d.). Greener living. <https://www.epa.gov/environmental-topics/greener-living>; Goucher College. (n.d.). Tips for students, save the planet—starting with your little corner of it. <https://www.goucher.edu/environmental-sustainability/what-you-can-do/tips-for-students>.

**OTHER WELLNESS DIMENSIONS.** The wellness model in this book incorporates the six dimensions previously described—physical, emotional, intellectual, social, spiritual, and environmental. Other models may highlight different dimensions, including two we'll consider briefly here in terms of their relevance to college students: financial wellness and occupational wellness. Both can be important to wellness, and they encompass many aspects of the six dimensions we've already discussed.

*Financial wellness* refers to appropriate management of financial resources, a task that typically requires self-discipline and critical thinking skills. Take advantage of budgeting resources and financial planning help available on your campus and in your community (see the box "Financial Strategies for College Students"). Watch out for common financial pitfalls, including making poor choices about which credit cards to get, overusing credit cards, failing to set up a budget, and letting friends or your own unrealistic expectations pressure you into spending more than you should. Working toward wellness doesn't have to be an expensive endeavor; check the Dollar Stretcher tips throughout this book for strategies to save money while you boost your wellness.

*Occupational wellness* refers to the satisfaction, fulfillment, and enrichment you obtain through work. If you consider the hours, days, and years you're likely to spend at work, you can clearly see why your job choices are important

to health and wellness. You want to work in environments that help you increase personal satisfaction, find enrichment and meaning, build useful skills, and contribute to your community. When you think about your potential career choices, consider your values, skills, personal qualities, and goals. Although a high-paying job may sound like the best choice, if you don't value and enjoy what you'll be doing every day, you'll gain little satisfaction from your work. Look for opportunities to learn and grow, to engage your personal interests, and to end each day feeling that your time has been well spent.

### DOLLAR STRETCHER Financial Wellness Tip

To get a handle on your finances and plan a budget, start by tracking all your income and expenses for several weeks. Many people find that by tracking expenditures, they cut back on nonessentials. Apps or online templates are available to help you. Begin by searching for tools that are simple, free, and created for college students. If needed, you can progress to more complex models.

### Integrating the Dimensions: Recognizing Connections and Striving for Balance

**Q** If you change your behavior for fitness, will that help other areas of your life too?

Absolutely. Any activity or choice that affects one dimension of wellness will directly or indirectly affect the other dimensions, and each dimension is vital in the quest for optimal wellness. For example, engaging in physical activity reduces stress and improves mood (emotional wellness) and is linked to the maintenance of cognitive functioning (intellectual wellness); it may also provide opportunities for enjoyable interaction with others (social wellness). The influence also runs in the opposite direction: Strong intellectual wellness helps you plan a successful program for building fitness, and your social support system can be a huge plus as you work to change your exercise behavior.

To improve wellness, you must integrate all the dimensions of wellness with the personal choices and actions that affect your health and well-being. Balance among the dimensions

## MYTH or FACT?

People spend less money when they use cash instead of a credit card.

See appendix to  
find out.



## Wellness Strategies

### Financial Strategies for College Students



How can I achieve financial wellness?  
I can barely get by.

Financial wellness doesn't refer to being rich but rather to managing your financial resources appropriately. Money doesn't guarantee good health and happiness, but financial difficulties can strain physical, emotional, and social dimensions of wellness and thus reduce your overall well-being. A study conducted at Ohio State University's office of student affairs also correlated increased financial stress with decreased GPA. Financial security provides peace of mind and reduces stress. The big message? Live within your financial means and, when possible, save for the future.

For many traditional-age college students, money management is a relatively new experience. Unfortunately, many learn from their mistakes rather than by educating themselves up front. They build up debt while in college, not realizing the long-term implications. Although some accumulation of debt may be necessary for long-term benefit, as in the case of student loans, it's important to distinguish between necessary and unnecessary expenses and to manage resources accordingly.

Credit card debt can quickly become a major financial pitfall for some students. Since the Credit Card Act was enacted in 2009 (making it illegal to approve a credit card for anyone under 21 without an adult co-signer or proof of sufficient income), student credit card debt has declined significantly. Although many students seem to prefer debit cards, 56 percent of students still have at least one credit card, and 5 percent use their card for tuition and/or other school-related expenses. As noted earlier, financial stress can negatively affect personal wellness. Research has shown a correlation between college students' credit card debt and a number of health risks, including being overweight, physical inactivity, poor nutritional habits, substance use, and violence.

Learning to develop and manage a budget is another common challenge for students. The majority of college students do not have a budget, and many who do don't stick to it. As a rule, women are more likely than men to have a budget, married students are more likely than unmarried students to follow a budget, and students over age 35 are most likely to stick to their budgets more often.

It's never too late—or too early—to make choices to improve your financial wellness. Many campuses have resources to help you develop a financial wellness plan. If assistance is not available at your school, many reputable financial-planning tools are within reach. Your bank, credit union, or other financial institution may offer free access to Web-based financial management tools; also review the resources from the Financial Literacy & Education Commission (<http://www.mymoney.gov>). When you do seek financial advice, choose your sources wisely and follow up with knowledgeable individuals you trust.

Here are some specific tips to help college students stay on track financially:

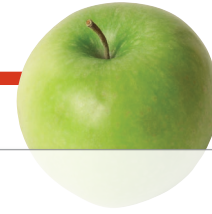
- Track your income and spending carefully; you're less likely to buy on impulse when you become more aware of where your money is going.
- Be frugal: Take advantage of student discounts on everything from pizza to school supplies.
- Keep only one credit card, and use it sparingly.
- Build up an emergency fund; if you run into trouble, many colleges provide grants or emergency loans (just make sure you are using additional loan money for something related to school, like computer repair, and not an expensive spring break trip that you can't really afford).
- Develop a personal budget, and review it often.
- Use caution: Don't give out your personal account or other numbers, don't leave payments in unsecure mailboxes, and review bills and statements carefully.

Changes don't have to be huge to make a difference. What one realistic thing could you do immediately to improve your financial wellness? Are there other relatively simple steps that could have a positive impact? Visit <http://www.moneymanagementtips.com/students.htm> for additional tips.

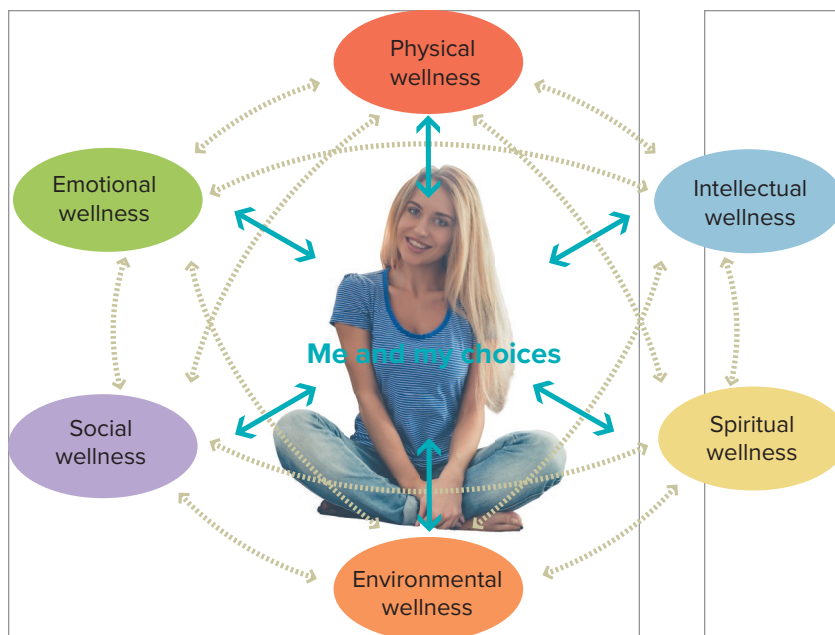
**Sources:** Gonzalez, J., & Holmes, T. (2018). Credit card debt statistics. Creditcards.com. <http://www.creditcards.com/credit-card-news/credit-card-debt-statistics-1276.php>; Henry, R. A., Weber, J. G., & Yarbrough, D. (2001). Money management practices of college students. *College Student Journal*, 35(2), 244–249; Nelson, M., Lust, K., Story, M., & Ehlinger, E. (2008). Credit card debt, stress, and key health risk behaviors among college students. *American Journal of Health Promotion*, 22(6), 400–407.

is also critical for wellness. Don't focus on a few dimensions and neglect others. Doing that is like removing a few spokes from a wheel: In most ways it still looks like a wheel, but it no longer functions optimally. Figure 1-3, "Wellness Integrator,"

shows the close relationship among the dimensions—and with your own choices and actions. You'll also see a wellness integrator figure, tailored to each chapter's specific topic, at the start of every chapter of this book.







**Figure 1-3** Wellness Integrator. The dimensions of wellness are linked to one another and to you and your choices.

Photo: VGstockstudio/Shutterstock

## Health in the United States: The Bigger Picture

Health is an issue not only for ourselves, our family, and our friends but also for communities and the nation as a whole. A healthy population is creative and productive, the engine for economic growth. An unhealthy population raises national health care costs and lowers productivity. Tracking the health status of Americans and developing strategies for extending healthy life and reducing the burdens of illness and disability are key goals of federal health agencies.

### Measures of Health and Wellness

**Q** By what standards is health measured?

There is no single best measure of health. Consider the possible criteria: Is the issue how long people live? How well they live? What they die from? The rates of specific diseases and injuries? How much money people spend on health care? Different measures of health and wellness show us different things about individuals and the societies they live in.

**Q** What are the chances of living to 100?

#### LIFE EXPECTANCY.

It would depend on your age, location, and current health status. **Life expectancy** is the average number of years people born in a given year are expected to live. Your expected life span at any given time depends on your age. What does this mean?

The life expectancy figure projected at birth is an estimated average. In reality we know some people will live to be older, and unfortunately, some will die young. A hypothetical average American born in 2014 is expected to live to age 78.9—but a person who was 65 in 2014 could expect 19.4 more years (age 84.4), a person who was 85 could expect 6.7 more years (age 91.7) and a person 100 would expect 2.3 more years (age 102.3).<sup>11</sup> The longer life expectancy as one ages reflects the fact that someone who has already lived that long has shown a fairly good level of health and has escaped some of the causes of death common among younger individuals.

The average life expectancy number hides some disparities. Women live longer than men (81.3 years versus 76.5 years for those born in 2014), and Hispanics live longer than whites or African Americans (82.1 years versus 79.1 years and 75.6 years, respectively). And if you were wondering how life expectancy in

the United States stacks up against other countries, it ranks 43rd overall.<sup>12</sup> Obviously, there's room for improvement in the United States.

**life expectancy** The average number of years people born in a given year are expected to live.

### Fast Facts

#### Living to a Ripe Old Age

Here are the top-10 countries in terms of life expectancy at birth for a child born today, with Guernsey and Switzerland tied for the 9–10 spot. (The United States ranks 43rd, so it's not on this list.)

1. Monaco (89.4)
2. Japan (85.3)
3. Singapore (85.2)
4. Macau (84.6)
5. San Marino (83.3)
6. Iceland (83.1)
7. Hong Kong (83.0)
8. Andorra (82.9)
9. Guernsey (82.5)
10. Switzerland (82.5)

**Source:** Central Intelligence Agency. (2018). The world factbook online (<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2102rank.html>).



Bananastock/Alamy Stock Photo

Life expectancy increased dramatically in the past century. A child born in 1900 had an average life expectancy of only 47 years, compared to close to 80 years today. Much of this difference is due to decreased rates of death among infants and children. In 1900, more than 30 percent of all deaths occurred among children under age 5; today that figure is less than 2 percent. Improvements in public health helped fuel this dramatic change in life expectancy.<sup>13</sup>

- Vaccinations for childhood diseases, improved sanitation, safer foods, and the development of antibiotics dramatically decreased deaths from infectious diseases like cholera, typhoid, measles, and tuberculosis.
- Better hygiene, nutrition, and health care reduced maternal and infant mortality by over 90 percent; mothers and babies are much more likely to survive and thrive today.
- Millions of smoking-related deaths were prevented by the recognition that tobacco use is a health hazard and by the subsequent anti-smoking campaigns and laws protecting nonsmokers from environmental tobacco smoke.
- Improvements in motor vehicle safety (better designed roads and cars; use of seat belts, child safety seats, and motorcycle helmets) and in workplace safety reduced motor vehicle-related deaths and occupational injuries and deaths.

Further improvements in life expectancy are possible, but they will require action by both individuals and health systems.

**Q** Why do women usually live longer than men?

The gap in life expectancy between the sexes is due to both behavioral and biological factors. In the developing world, women do not fare as well as men due to high rates of



The development and use of vaccines helped increase U.S. life expectancy by dramatically reducing illness and death from infectious diseases such as smallpox, measles, mumps, diphtheria, pertussis (whooping cough), and polio.

Science.Photo.Library/Getty Images

maternal mortality (deaths related to pregnancy and childbirth). In the developed world, women live on average 5–10 years longer than men; among people over age 100 in the United States, 81.2 percent are women.<sup>14</sup>

A significant factor in men's and women's different death rates in the United States is the number of men who die as a result of risky and violent behavior. Young men in particular are much more likely than young women to die from unintentional injuries (accidents), assault (murder), and suicide.<sup>15</sup> Is risky male behavior due to some biological factor, such as higher levels of the hormone testosterone, or does it relate to cultural norms for males? Both biological and cultural factors may play a role. With respect to suicide, the higher rate of deaths among men is a function of the choice of method: Women are more likely than men to attempt suicide, but men are much more likely to succeed because they tend to choose more lethal methods (such as a firearm). Higher smoking rates and excess alcohol consumption among men may be linked to cultural and social norms for behavior.

Another reason women have a longer average life expectancy is that they tend to develop cardiovascular disease, the leading cause of death among Americans, at a later age than men. One factor may be biological differences between the sexes—levels of hormones or iron status, for example. Women also have healthier behaviors on average: They are less likely to smoke, they have healthier diets, and they are more likely to deal with stress in positive ways, such as by seeking social support.

Both men and women can take steps to improve their lifestyle and the likelihood that they'll live a long and healthy life.

**Q** Do you have to be super healthy to live longer?

#### QUALITY OF LIFE.

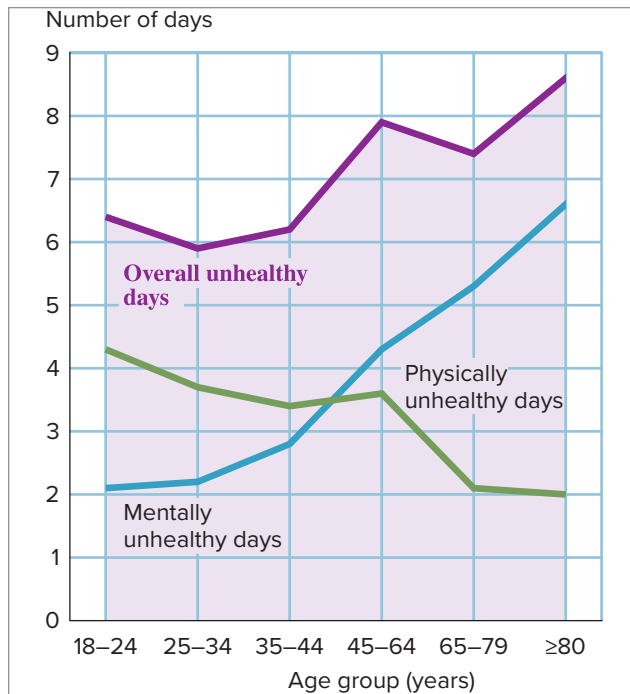
Yes and no. Superior health helps, but it does not guarantee longevity—that is, a long life. A

high level of health means that you are free from serious or chronic illness, at least for the moment, so you're on the positive side of the health continuum. However, many people

### Tech Tip

#### Calculating Life Expectancy

Want a better understanding of life expectancy? Try some of the many online life expectancy calculators provided by insurance companies to help their customers with long-term financial planning. The best calculators will allow you to enter more of your own personal data and actually watch the life expectancy number fluctuate as you enter your age, gender, personal characteristics, and health habits. It's a good way to visualize how different risk factors can affect your projected long-term well-being.

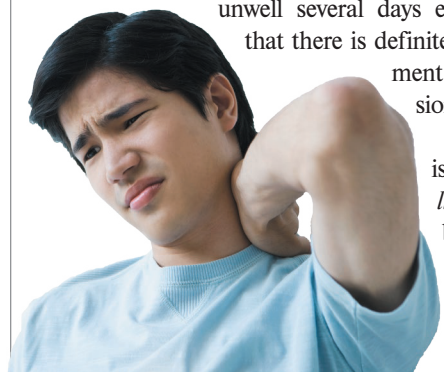


**Figure 1-4** Quality of life among Americans: Unhealthy days during a 30-day period. Overall unhealthy days and physically unhealthy days tend to increase with age, but mentally unhealthy days are highest for younger age groups.

**Source:** Centers for Disease Control and Prevention. (2013). Health-related quality of life—United States, 2010 and 2006. *MMWR*, 62(3), 105–111.

with chronic illness live for years with symptoms of varying severity. Importantly, longevity isn't the only goal of health and wellness. You want not only *more* years but *more healthy* years, more years in which you enjoy a high quality of life.

Your overall perception of your wellness is one way to assess your quality of life. But researchers use more specific measures for research and comparative purposes. One measure is *unhealthy days*, or the estimate of the number of days of poor or impaired physical or mental health in the past 30 days. As you can see from Figure 1-4, young adults report more mentally unhealthy days, and older adults report more physically unhealthy days. It is noteworthy that young adults might be on the positive end of the health continuum because they have no symptoms, yet they rate their stress level so high that they feel unwell several days each month—a sign that there is definite room for improvement in several dimensions of wellness.



PhotoAlto/Alix Minde/Getty Images

A related measure is *years of healthy life*. The difference between life expectancy and years of healthy life is the number of years of less-than-optimal health due to chronic

or acute diseases or limitations. Currently, Americans can expect an average of 68 years of life in good or better health and a life expectancy of 78 years, meaning that about 10 years will be spent in less-than-optimal health.<sup>16</sup> Good lifestyle choices now can help you not only live longer but also have more years of healthy life.

## The National Healthy People Initiative

**Q** Have people in the United States shown any substantial improvement in physical health in the past few years, or are we all just getting less and less healthy?

Some measures of health have improved; others have worsened. For the details, check the data for Healthy People objectives. The national Healthy People initiative, sponsored by the U.S. Department of Health and Human Services, is a broad collaborative effort with the goal of improving health—the health of each individual, of communities, and of the nation. Healthy People plans, published each decade since 1990, set specific health goals framed on 10-year agendas. Progress is tracked throughout the decade, followed by the updated plan for the next 10 years.

The current plan, *Healthy People 2020*, was released in 2010. It features four overarching goals supported by 1,200 specific objectives in 42 content areas, along with national data collection strategies to track achievement. *Healthy People 2020* goals are as follows:<sup>17</sup>

- Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death
- Achieve health equity (the highest level of health for all people), eliminate disparities (differences closely linked with social, economic, and/or other environmental factors), and improve the health of all groups
- Create social and physical environments that promote good health for all
- Promote quality of life, healthy development, and healthy behaviors across all life stages

The final progress report for *Healthy People 2010* was published in 2011. Here are two examples of specific objectives from *that plan* and the progress we made toward them—or not:<sup>18</sup>

- Reduce the proportion of adults (18 and older) who engage in no leisure-time physical activity from a baseline of 40 percent to a target of 20 percent; the final figure of 36 percent means we are moving in a positive direction but have not yet met this objective.
- Reduce the proportion of college students engaging in binge drinking of alcoholic beverages (in the past month) from a baseline of 39 percent to a target of 20 percent; the final figure of 40 percent means we are farther from the target than when we started.





Wonwoo Lee/Image Source

You can see the *Healthy People 2020* plan and data on the Healthy People Web site (<http://www.healthypeople.gov>). *Healthy People 2030* is currently in development. You can learn more and follow the development process at <https://www.healthypeople.gov/2020/About-Healthy-People/Development-Healthy-People-2030>.

## Leading Causes of Death: U.S. and Global

**Q** How does the United States compare to other countries in terms of diseases?

We are very fortunate in the United States. In developing nations, people suffer and die primarily from diseases and conditions related to the lack of necessities and basic public health measures. By comparison, people in the United States enjoy a relative abundance of resources. Yet sometimes abundance can lead to dangerous excess. Even in lower-income areas of the United States, the primary causes of death are linked to lifestyles. Illnesses such as diabetes and cardiovascular disease, for example, are highly correlated with lifestyle choices, including overindulgence in fat, sugar, and alcohol.

Figure 1-5 compares the general categories of leading causes of death in developing regions and developed regions. The high percentage of deaths in developing countries from communicable (infectious) diseases is similar to what was seen in the United States in 1900. In developed countries, most deaths are now due to noncommunicable (chronic) diseases.

**Communicable (infectious) diseases** are those caused by a pathogen such as a bacterium or virus; they typically develop very quickly and are contagious. People who contract an infectious disease, except for serious ones like HIV infection and hepatitis, often recover completely if they receive appropriate treatment.

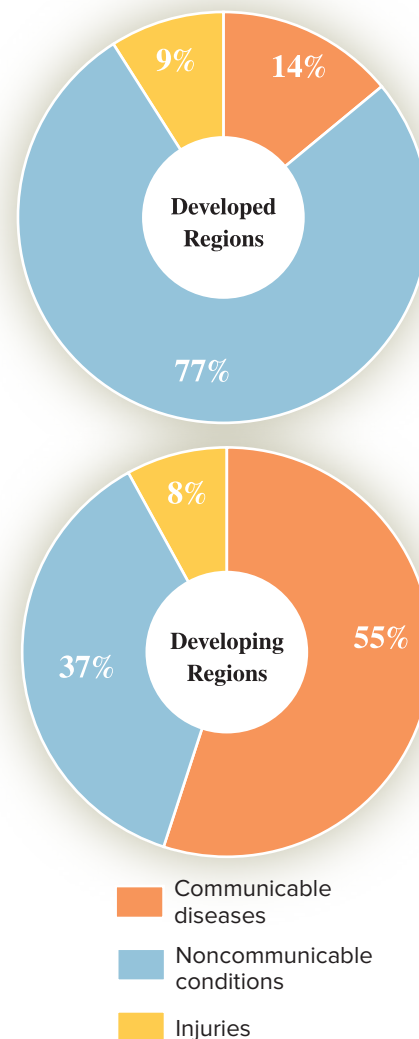
By contrast, **noncommunicable (chronic) diseases** are not caused by pathogens and are not contagious; they are mostly long-lasting or frequently recurring diseases that develop over time from a combination of genetic, environmental, and lifestyle factors. They include heart disease, some forms of cancer, and diabetes. People with chronic diseases must often adapt their lives to accommodate the symptoms and effects of the disease. Approximately 70 percent of the people in the United States develop and die from some form of chronic disease. (We examine chronic and infectious diseases in greater detail in Chapters 11 and 12.)

### **communicable (infectious) disease**

A disease that can be passed from one person to another; typically caused by a pathogen such as a bacterium or virus.

### **noncommunicable (chronic) disease**

A disease that is not infectious or contagious; many are long-lasting or frequently recurring diseases that develop over time and are the result of the interplay of genetic, environmental, and lifestyle factors.



**Figure 1-5** Causes of death in developed and developing regions of the world.

**Source:** Crow, B., & Ladha, S. (2011). *The atlas of global inequalities*. Oakland: University of California Press.



**Q** It seems as if everyone has some kind of cancer. Is cancer now the leading cause of death for Americans?

For many age groups, yes—but not overall (Table 1-1). Although deaths from heart disease have fallen significantly in recent decades, heart disease is still the number-one killer of Americans. Cancer tops heart disease as a cause of death for younger people, but among people age 75 and older, heart disease kills many more than cancer. As you can see from Table 1-1, these two chronic diseases—heart disease and cancer—are responsible for nearly half of all deaths in the United States each year.

**Q** What is the leading cause of death for young adults like most college students?

Few traditional-age college students die from heart disease or cancer, and their overall death rates are low. The top causes of death in this age group are accidents, assault

**TABLE 1-1 Leading Causes of Death in the United States, All Ages**

RANK	CAUSE	NUMBER OF DEATHS	PERCENTAGE OF ALL DEATHS
1	Heart disease	635,260	23.4%
2	Cancer	598,038	22.0%
3	Accidents (unintentional injuries)	161,374	5.7%
4	Chronic lower respiratory diseases	154,596	5.4%
5	Stroke	142,142	5.2%
6	Alzheimer's disease	116,103	4.1%
7	Diabetes	80,058	2.9%
8	Influenza and pneumonia	51,537	2.1%
9	Kidney disease	50,046	1.8%
10	Suicide	44,965	1.6%

**Source:** National Center for Health Statistics. (2018). Deaths: Leading causes for 2016. *National Vital Statistics Reports*, 67(6).

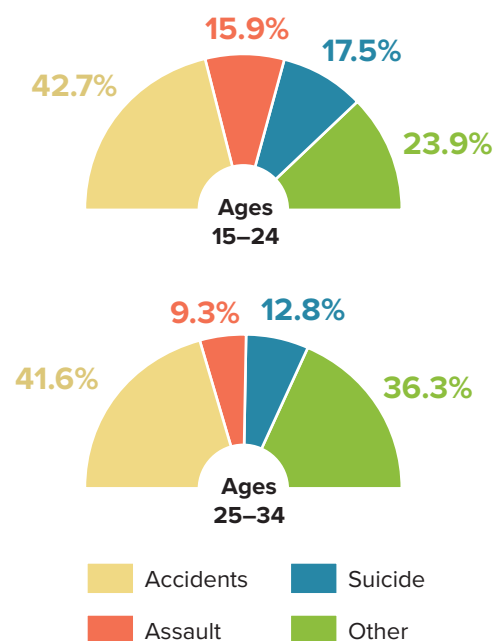
(homicide), and suicide, all of which can stem from risky behaviors, violence, and depression (Figure 1-6). The chronic diseases that are the major causes of death for the population as a whole develop over many years, and their symptoms may not appear until middle or later adulthood. That doesn't mean young adults should ignore them. Your habits *now* can have a big influence on whether and when you develop a serious chronic disease.

**Q** What can be done to decrease the leading causes of death?

A great deal. To begin with, it's important to understand the basics about **risk factors**, which are factors that increase your susceptibility for the development, onset, or progression of a disease or an injury. Smoking is an example of a risk factor; smokers are far more likely than nonsmokers to develop heart disease and cancer. Not wearing a seat belt is another risk factor; if you don't buckle up, you are far more likely to be seriously injured in a crash than is a consistent seat belt user.

Risk factors are of two types—those that cannot be changed and those that can be changed. Age is a common risk factor for chronic disease that you can't change; for example, years of wear and tear on your joints increase the risk of developing arthritis. However, you can change other risk factors for arthritis, such as excess body weight. Most chronic diseases develop from a combination of risk factors, some of which are under your control. In short,

**risk factor** A behavior or a characteristic that increases susceptibility to the development, onset, or progression of a disease or an injury.



**Figure 1-6** Leading causes of death among young adults. Young adults are most likely to die from causes related to risky behavior and violence.

**Source:** National Center for Health Statistics. (2018). Deaths: Leading causes for 2016. *National Vital Statistics Reports*, 67(6).

through your own actions, you can reduce your risk for most major chronic diseases and types of injuries. Later in this chapter, we'll review the components of a wellness lifestyle that can help you both increase wellness and reduce the risk of health problems throughout your life.

### Q How many people die from obesity?

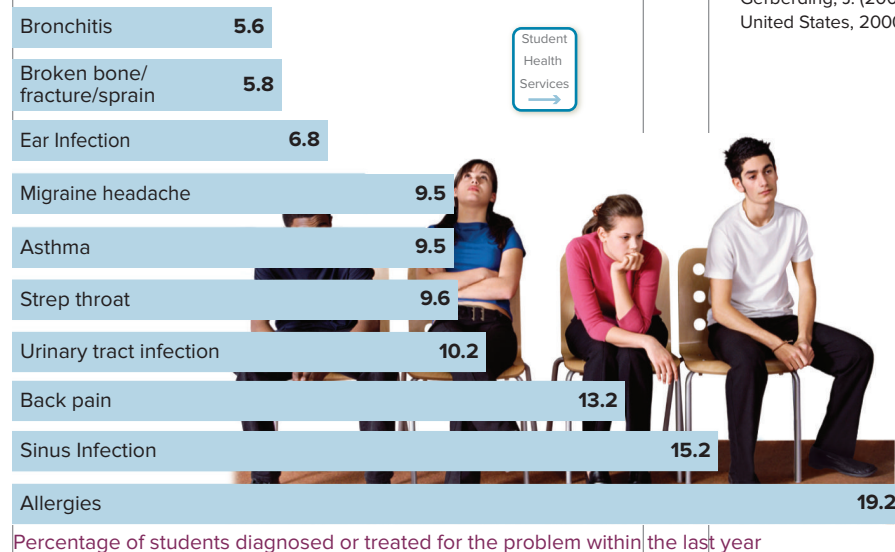
Obesity isn't on the list of leading causes of death among Americans. However, it is an important *underlying* cause of many chronic diseases. Researchers have examined the lifestyle and environmental factors that contribute to the leading causes of death, and they have identified and ranked what they call the *actual* causes of death (Table 1-2). Obesity appears near the top of this list, because it contributes to heart disease, cancer, and diabetes, among other serious health conditions. Large decreases in life expectancy have been seen in obese people: Depending on age, sex, race, and body mass index, obesity can decrease life expectancy 0.2 to 11.7 years—with the greater number of years lost by those who are obese at a younger age.<sup>19</sup>

Tobacco use (including smoking and secondhand smoke exposure) is actually the leading preventable cause of death in the United States. Individuals who are obese and subject to the effects of tobacco use may face even greater complications and lost years of life.<sup>20</sup> All the factors in Table 1-2 are included in the discussion of a wellness lifestyle later in the chapter.

## Health and Wellness on Campus

### Q What are the main health and wellness concerns of college students?

Many college students ignore their health and push their limits in terms of stress, lack of sleep, relationship strain, and



**Figure 1-7** Most common health problems reported by college students.

**Source:** American College Health Association. (2018). *American College Health Association National College Health Assessment II: Reference Group Executive Summary Spring 2018*. Baltimore, MD: American College Health Association.

Photo: Corbis/VCG/Getty Images

**TABLE 1-2 Actual Causes of Death Among Americans**

CAUSE	NUMBER OF DEATHS PER YEAR	PERCENTAGE OF TOTAL DEATHS PER YEAR
Tobacco	440,000	18.1%
Obesity (poor diet and inactivity)	112,000	4.6%
Alcohol consumption	85,000	3.5%
Microbial agents	75,000	3.1%
Toxic agents	55,000	2.3%
Motor vehicles	43,000	1.8%
Firearms	29,000	1.2%
Sexual behavior	20,000	0.8%
Illicit drug use	17,000	0.7%

**Sources:** Flegal, K., Graubard, B. Williamson, D., & Gail, M. (2005). Excess deaths associated with underweight, overweight, and obesity. *JAMA*, 293, 1861–1867; Mokdad, A., Marks, J. Stroup, D., & Gerberding, J. (2004). Actual causes of death in the United States, 2000. *JAMA*, 291, 1238–1245 [original study]; Mokdad, A., Marks, J., Stroup, D., & Gerberding, J. (2005). Correction: Actual causes of death in the United States, 2000 (letter). *JAMA*, 293(3), 293–294.

poor time management. Even if the hectic life of a college student doesn't lead to illness, it can leave one feeling exhausted, overwhelmed, and generally unwell. In a recent survey in which over 80,000 college students identified health problems that affected them during the previous school year, back pain and allergies topped the list.

As Figure 1-7 shows, most health problems reported by students aren't of the chronic variety. Many are short-lived and curable. Why then should they be such a concern? The reason is that although the physical effects on the body may be short-lived, these health problems also affect other areas of life.

Are the academic, financial, time-management, and relationship effects all short term, or do some

**TABLE 1-3 Academic Impact of Selected Health Problems\***

	PERCENTAGE OF STUDENTS REPORTING AN ACADEMIC IMPACT
Stress	33.2%
Anxiety	26.5%
Sleep difficulties	21.8%
Depression	18.7%
Cold/flu/sore throat	16.1%
Concern for a troubled friend or family member	11.9%
Relationship difficulties	9.5%
Attention-deficit/hyperactivity disorder (ADHD)	5.6%
Sinus infection/ear infection/bronchitis/strep throat	4.5%
Alcohol use	3.1%

\*Academic impacts include a lower grade on an exam or important project; a lower grade in a course; an incomplete or dropping of a course; or a significant disruption in thesis, dissertation, research, or practicum work.

**Source:** American College Health Association. (2018). *American College Health Association National College Health Assessment II: Reference Group Executive Summary Spring 2018*. Baltimore, MD: American College Health Association.

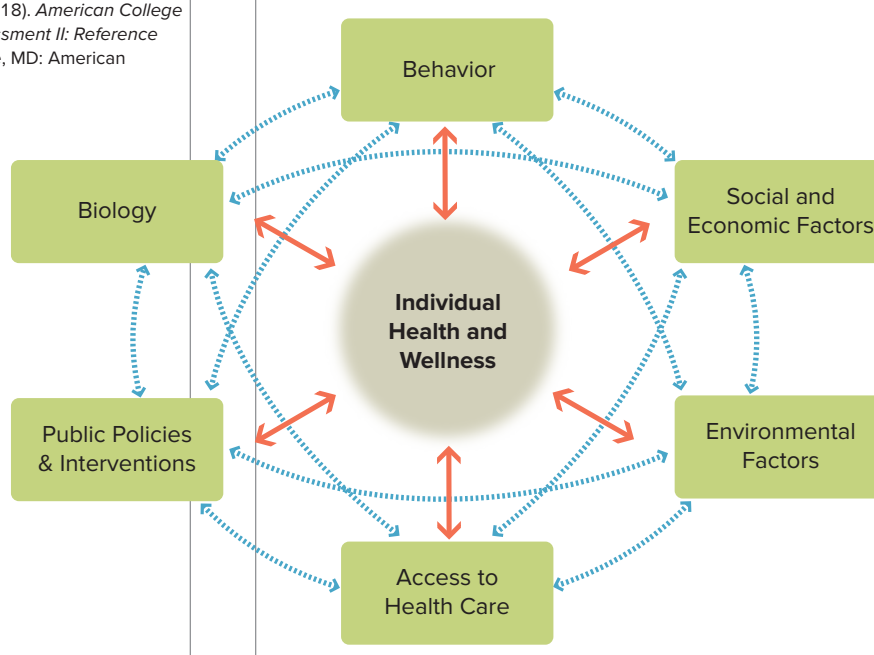
have long-term implications? Table 1-3 shows a range of common health issues that affect the academic life of college students. The high percentages of students reporting these health problems also indicate that students' health behaviors are not optimal and that there is plenty of room for improvement in multiple wellness dimensions. Students whose academic performance is being hurt by stress, sleep difficulties, depression, anxiety, relationship difficulties, or alcohol use are certainly not living up to their full wellness potential.

The truth is that when it comes to your health, any problem may produce

longer-term consequences than just a missed class or two. Your finances, your relationships, and your risk for chronic conditions are among the many aspects of life that can be affected. How do you break the cycle—or at least interrupt it? It comes back to the issue of risk and responsibility. It's up to you to make good choices and to avoid risk when you can. That's where a wellness lifestyle comes into play: Make choices every day that will help boost your health and well-being now and in the future.

## Factors Influencing Individual Health and Wellness

Although this book stresses the role of individual choice and behavior in health and wellness, those aren't the only factors. You have the most control over your individual lifestyle choices, but several other factors also influence your well-being. Even for those you can't control or change, you can make choices to help improve wellness. For example, even though a condition like high blood pressure may be common in your family—a reality that increases your personal risk of developing it—genetics isn't the only risk factor. You can choose to limit the salt in your diet and get regular blood pressure checks, both of which may reduce your risk of developing high blood pressure or limit its adverse effects if you do develop it. In this section, we'll review various influences on individual health and wellness, first with special attention to behavior choices (Figure 1-8). We'll then look at some additional factors that can influence your well-being. Just as the dimensions of wellness interact, so do the factors that determine your health and wellness status.



**Figure 1-8** Factors that influence health and wellness status.

## Behavior Choices That Influence Wellness

Your day-to-day decisions and actions affect all dimensions of wellness—physical, emotional, intellectual, social, spiritual, and environmental—as well as your overall health status and risk for chronic diseases and premature death. Let's look at some best practices.

**Q** What basic things should I do every day or every week for a healthy lifestyle?

**BE PHYSICALLY ACTIVE.** Your body is designed to function best when it is active—and busy isn't the same thing as active. Because so much of contemporary life is tied to technologies that keep us inactive, most people need to purposely plan time for physical activity. You'll find it well worth the time and effort. Physically active individuals live longer and healthier lives (see Figure 1-2). And many of the benefits of physical activity are immediate: It reduces stress and anxiety, helps you sleep better, and boosts your mood and self-esteem. Chapter 3 goes into much more detail about the benefits of physical activity and physical fitness, and later chapters will guide you in putting together an exercise program that is right for you.

**CHOOSE A HEALTHY DIET.** Think about *diet* as your daily eating habits, not as a temporary restriction of the foods you eat. Eating well means choosing more healthful foods and fewer harmful foods, most of the time. Nutrition and dietary planning will be discussed in detail in Chapters 8 and 9. General guidelines for healthy eating include the following:

- Eat more fruits, vegetables, legumes, whole grains, fish, and low-fat or nonfat dairy products.
- Consume fewer sugary foods and drinks, unhealthy fats, refined carbohydrates, salty foods, and full-fat dairy products, as well as less red meat.
- Balance your overall energy (calorie) intake with your level of physical activity to prevent weight gain.

A healthy diet will give you the energy and nutrients you need today and limit the substances that increase your risk for chronic diseases in the future.

**MAINTAIN A HEALTHY WEIGHT.** Achieving and maintaining a healthy weight depend on your diet and activity habits—and on your ability to manage stress and make sound choices. A healthy weight is perhaps the most challenging lifestyle goal to achieve in our society, where environmental influences often work against our efforts. But even modest success at weight management improves health, reduces chronic disease risk, and makes people feel better about themselves. Chapter 7 provides information on assessing body weight and body composition, and Chapter 9 presents healthy eating strategies for weight management.

**AVOID TOBACCO IN ALL FORMS.** As shown in Table 1-2, tobacco use is the leading preventable cause of death, accounting for about one in five deaths every year.<sup>21</sup> In the short term, smoking impairs your lung function and your immune system; in the long term, it is a major risk factor for 8 of the top 10 causes of death. Smoking also kills thousands of nonsmokers every year. No form of tobacco use is safe. Although smoking rates have dropped significantly over the past 50 years, about 20 percent of Americans are still smokers. Strategies for quitting smoking are described in Chapter 13.

## MANAGE STRESS AND GET ADEQUATE SLEEP.

Many college students feel stressed out and short on sleep. Excess negative stress is uncomfortable in the short term and can have serious health consequences over time. Learn to recognize the key causes of stress in your life and develop coping strategies—time management, social support, exercise, a relaxation technique. Don't turn to alcohol, tobacco, or overeating in an effort to reduce stress; they are ineffective and harmful to your health in other ways. Getting adequate

### Fast Facts

#### Smoking by the Numbers

- Cigarette smoking is estimated to be responsible for \$300 billion in annual health-related economic losses in the United States (for direct medical costs and lost productivity).
- For the promotion of cigarettes and smokeless tobacco, the tobacco industry spends approximately \$9.5 billion per year/  
\$26 million per day/  
\$1 million per hour.
- An estimated 37.8 million people, or 15.5 percent of all adults (age 18+) in the United States, currently smoke cigarettes.
- Each year 3,200 persons under age 18 smoke their first cigarette.
- Smoking kills over 480,000 Americans a year. On average, smokers die 10 years earlier than nonsmokers.
- Worldwide smoking kills nearly 6 million people a year. If current trends continue, that number will be 8 million by the year 2030.



Stockbyte/Getty Images

**Source:** Centers for Disease Control and Prevention. (2018). Smoking & tobacco use ([https://www.cdc.gov/tobacco/data\\_statistics/factsheets/fast\\_facts/index.htm](https://www.cdc.gov/tobacco/data_statistics/factsheets/fast_facts/index.htm)).



sleep is one of the best strategies for reducing stress and improving your ability to cope. For more on stress management, see Chapter 10.

**LIMIT ALCOHOL CONSUMPTION.** If you drink alcohol, do so moderately and in situations that don't put yourself or others at risk. Excess alcohol consumption damages the body, and intoxication is linked to high risk of injuries and violence. See Chapter 13 for more on the health effects of alcohol.

**AVOID RISKY BEHAVIORS.** Risky behaviors such as the following greatly increase the likelihood of an injury or illness:

- Dangerous driving, including driving at high speeds, driving while distracted, and not wearing a seat belt
- Unsafe handling of firearms
- Unprotected sexual activity, which carries the risk of sexually transmitted infections
- Not using appropriate safety equipment during sports and recreational activities (for example, helmets and personal flotation devices) or during work activities (for example, goggles, gloves, helmets)
- Drug or alcohol intoxication, which can be dangerous in itself (for example, alcohol poisoning) and can also lead to other risky behaviors, including unintentional injuries and violence

Make safety a priority for yourself and those around you. Most safety-related behaviors aren't complicated, but they can be challenging in some circumstances. Use common sense, plan ahead, and don't let peer pressure or lack of commitment get in the way of safe choices.

Behaviors related to safe driving deserve special mention. Motor vehicle crashes are the leading cause of death for Americans ages 5–24.<sup>22</sup> People don't think of driving as a risky behavior, but it is probably the most dangerous thing most of us do on any given day. Treat driving with the attentiveness it deserves, and always drive (or ride) safely. Pay attention, don't speed, wear your seat belt, don't text or talk on the phone, don't tailgate, and use signals before turning or changing lanes. Just because you've previously gotten away with driving too fast—or while distracted by texting, talking, or changing the radio station—doesn't mean you will be so lucky next time.

#### LIMIT EXPOSURE TO RADIATION AND TOXINS.

Exposure to pollutants and other environmental toxins is a risk factor for a number of health problems. The most common source of radiation exposure is sunlight. Always use sunscreen, and don't use tanning lamps (see Chapter 11). Have X-rays only when they are medically necessary. If you live or work in an area with high pollution levels—for example, in a building that may have high levels of radon or asbestos—take appropriate steps to protect yourself. You can boost the environmental wellness of your community

## Fast Facts

### Driving Distracted?

Distracted driving is driving while doing another activity that takes your attention away from driving. Distractions can be visual (taking your eyes off the road), manual (taking your hands off the wheel), or cognitive (taking your mind off driving).

Startling stats:

- Every day in the United States, 9 people are killed and over 1,000 are injured in crashes that are reported to involve a distracted driver.
- On any given day in America, approximately 481,000 drivers are using cell phones or manipulating electronic devices while driving.
- Drivers in their 20s are responsible for 33 percent of fatal driving accidents that are attributed to cell phone distraction. Drivers ages 15–19 are responsible for 14 percent.
- Five seconds is the average time your eyes are off the road while texting. When traveling at 55 mph, that's enough time to cover the length of a football field—blindfolded.

For your safety and that of others, limit all types of distractions while driving. Keep your eyes on the road, your hands on the wheel, and your mind on what you're doing.

**Sources:** Adapted from CDC Injury Prevention & Control. (2017). Distracted driving ([https://www.cdc.gov/motorvehiclesafety/distracted\\_driving/](https://www.cdc.gov/motorvehiclesafety/distracted_driving/)); U.S. Department of Transportation. (2017). Traffic safety notes ([https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812\\_381\\_distracteddriving2015.pdf](https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812_381_distracteddriving2015.pdf)).



Chris Ryan/age fotostock

through such strategies as recycling, reducing driving time, saving energy and water, and disposing of hazardous wastes properly. For more on limiting your exposure to toxins and on improving the environment, visit the Web site for the U.S. Environmental Protection Agency (<http://www.epa.gov>).

**PRACTICE GOOD SELF-CARE.** To reduce your risk of infections, wash your hands frequently and limit your exposure to people who are ill with colds or the flu. Practice good dental care by brushing and flossing regularly. Use over-the-counter remedies carefully, following the label instructions. For more on avoiding and treating infectious diseases, see Chapter 12.



## Living *Well* with . . .

### Migraine Headaches

For those who get migraine headaches, the experience can be debilitating. These recurring, severe headaches cause pulsing or pounding pain, usually on one side of the head, often accompanied by nausea, vomiting, and sensitivity to light and sound. They can last from 6 to 48 hours. For some people, migraines are preceded by warning symptoms known as an aura—visual disturbances consisting of zigzag patterns of flashing lights, blind spots, and tunnel vision. Many people experience a “zombie phase” or “migraine hangover” of fatigue and lethargy after an attack. Migraines can be brought on by a variety of triggers, including bright lights, certain foods and food additives, stress, changes in weather, and hormonal changes (in women).

Research has revealed that migraines are related to a wave of nerve cell activity that sweeps across the brain, affecting nerve pathways and brain chemicals. Researchers are beginning to investigate gene mutations that may cause this abnormal activity in brain cells. Migraines may run in families, and they occur more frequently in women than in men.

There is no cure for migraines, but they can be managed. The goal is to identify and avoid triggers. If you get migraines, keep a headache diary for a while and record the following information:

- When you got the migraine and its severity
- What you’ve eaten
- How much sleep you’ve had
- For women, where you are in your menstrual cycle
- Other factors that may have an effect, including stress

If you have a chronic or recurring medical condition—asthma, diabetes, or migraine headaches, for example—follow your health care provider’s instructions for managing it. Take preventive medications if you need them. Having a chronic condition is challenging, but it doesn’t mean you can’t achieve optimal wellness. Take whatever actions you can to manage your condition and limit its impact on your life; see the box “Living Well with Migraine Headaches” in this chapter and look for other “Living Well with . . .” boxes throughout the book for tips and strategies about managing common chronic conditions.

**SEEK APPROPRIATE MEDICAL CARE.** Don’t wait until you’re sick to visit a health care provider. Get recommended checkups, screening tests, and immunizations. Don’t ignore symptoms that should be evaluated by a doctor;

If you start to get migraine symptoms, act quickly to treat them. You may be able to reduce or prevent further symptoms by taking these steps:

- Drink water to avoid dehydration.
- Rest in a quiet, dark room with your eyes closed. Try out some of the relaxation techniques discussed in Chapter 10.
- Place a cool cloth on your head.

Over-the-counter pain relievers and nausea medicines may help manage symptoms during a migraine. Prescription medications can reduce the number of attacks, stop the headache once it starts, and treat pain and other symptoms.

The best way to prevent migraines is to modify your habits and environment to avoid triggers:

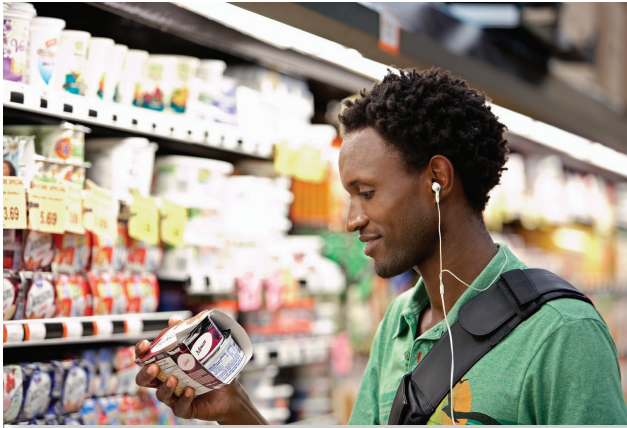
- Avoid the personal triggers you have identified through your headache diary.
- Avoid smoking, alcohol, artificial sweeteners, and other known food-related triggers.
- Get regular exercise.
- Get enough sleep.
- Learn to manage stress.

Don’t let migraines stop you from living well. Further information about treatment and support is available from the American Migraine Foundation (<http://www.americanmigrainefoundation.org>) and the National Headache Foundation (<http://www.headaches.org>).

**Sources:** MedlinePlus. (2019). Migraine (<http://www.nlm.nih.gov/medlineplus/ency/article/000709.htm>); Dodick, D. W., & Gargus, J. J. (2008, August). Why migraines strike. *Scientific American*, 56–73.

if you aren’t sure, you can usually call or e-mail a doctor’s office, a clinic, or your campus health center for advice. And don’t neglect your mental health; if symptoms of emotional or psychological problems are interfering with your daily life, seek help. For additional advice on evaluating symptoms, treating minor medical problems, and getting appropriate tests and vaccines, visit the Web site of the American Academy of Family Physicians (<http://familydoctor.org>).

**APPLY CRITICAL THINKING SKILLS AS A HEALTH CONSUMER.** A high level of intellectual wellness can help you navigate the complex U.S. health care system, with its many products, services, and professionals. Other wellness-related tasks that require critical thinking skills include finding accurate information, reading food and drug labels, considering the risks and benefits of various tests and

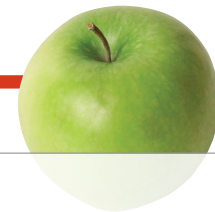


Use your critical thinking skills to read and understand the information on food, supplement, and drug labels—and to know what that information means for you.

Fuse/Getty Images

treatments, evaluating health insurance plans, and communicating with health care providers. Keep asking questions and searching for answers. See the box “Finding Sound Health and Wellness Information” to learn more about identifying good sources of information and interpreting the results of medical research studies.

**CULTIVATE RELATIONSHIPS AND SOCIAL SUPPORT.** People are enriched by others. Strong relationships provide emotional and material support. Connect with groups and individuals that will support and promote your social wellness. Develop and maintain strong, loving ties with family, friends, and significant others. Recognize individual strengths, needs, and styles, and develop skills associated with successful relationships. Spend time with the people who are important to you.



## Wellness Strategies

### Finding Sound Health and Wellness Information

**Q** Can I find any good health information on the Web?

Yes, but you must examine Web sites carefully to ensure that the information is valid. When evaluating the quality of health information on Web sites, take these steps:

**Consider the source:** Know who is responsible for the content, and look for recognized authorities.

- Locate the “about us” page. Is the site run by a branch of the federal government, a nonprofit institution, a college or university, a professional organization, a health system, a commercial organization, or an individual?
- Use caution if the site doesn’t provide a way to contact the organization or webmaster.

**Focus on quality and find evidence for the claims:** Ensure that information is authored by experts or reviewed and approved by an editorial board before it is posted.

- Use caution on sites that don’t identify the author and that rely on testimonials and opinions rather than qualified individuals, research, or organizations.
- Look for sites with HONCode certification, meaning that they follow the code of conduct developed by the Health on the Net (HON) Foundation (<http://www.hon.ch>).

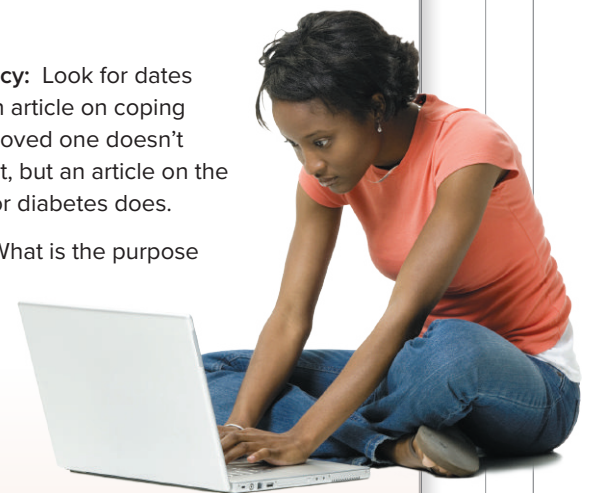
**Be a cyberskeptic:** Avoid quackery.

- Beware of claims that are too good to be true, such as a remedy that will cure a variety of illnesses, is a “breakthrough,” will have quick and dramatic results, or relies on a “secret ingredient.”
- Avoid sites that have a sensational writing style (lots of exclamation points, for example) and those that use technical jargon or deliberately obscure—or artificially scientific-sounding—language.
- Get a second opinion. Check more than one site.

**Review for currency:** Look for dates on Web pages. An article on coping with the loss of a loved one doesn’t need to be current, but an article on the latest treatment for diabetes does.

**Beware of bias:** What is the purpose of the site? Who is funding it?

- Use caution if the site’s sponsor is selling something, even if



Mike Kemp/Rubberball/Getty Images

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the product is only indirectly referred to on the site. Advertisements that do appear should be labeled; they should say “Advertisement” or “From Our Sponsor.”

- See if it is clear whether the content comes from a noncommercial source or an advertiser is providing it. For example, if a page about treatment for depression recommends one drug by name, the drug’s manufacturer may have provided that information. Consult other sources to see what they say about the drug and whether other medications can also be used.

**Protect your privacy:** Health information should be confidential. Look for a privacy policy that tells you what information the site collects and what the site managers do with it. For example, if the site says “We share information with companies that can provide you with useful products,” then your information isn’t private.

Use this information to evaluate a Web site that you consult for health and wellness information. How does the site rate on the above criteria? Is the site credible? Why or why not?

**Q** How do I know which research studies have good information?

Every day, you can find hundreds of news stories related to health. You can use your critical thinking skills to evaluate news reports about medical research findings and to determine whether the results might be important for you.

**Questions to ask about a new medical finding:**

- Was it a study in the laboratory, with animals, or with people? The results of research with people are more likely to be meaningful for you.

- Does the study include people like you? Were the participants the same age, sex, educational level, income group, and ethnic background as yourself? Did they have the same health concerns?
- Was it a randomized (participants are randomly assigned to either the treatment or the placebo group), double-blind (neither the participants nor the researchers know who is receiving the treatment and who is receiving the placebo), controlled clinical trial involving thousands of people? This type of study is the most expensive, but it also gives scientists the most reliable results.
- Are the results presented in a precise, easy-to-understand way? They should use absolute risk, relative risk, or some other uncomplicated number.
- If a new treatment was being tested, were there side effects? Sometimes side effects are almost as serious as the disease.
- Who paid for the research? Take special care in evaluating research that was partly or fully funded by a company that stands to gain financially from the results.
- Who is reporting the results? Is the newspaper, television station, or Web site a reliable source of medical news? Was the report written by someone who is trained to interpret medical findings?

Talk with your health care provider before changing your lifestyle or medications on the basis of health headlines or information found online.

**Sources:** Adapted from National Library of Medicine. (2015). MedlinePlus guide to healthy Web surfing (<http://www.nlm.nih.gov/medlineplus/healthy-websurfing.html>); National Institute on Aging. (2011). *Understanding risk: What do those headlines really mean?* NIH Publication 11-7482.

Don’t neglect family and friends when you are busy—make time for them. Be supportive and kind, and expect that all relationships will have ups and downs. Communicate acceptance and respect and identify methods to successfully deal with differences.

**NOURISH YOUR SPIRITUAL SIDE.** Don’t neglect spiritual wellness. Consider the values and principles that are important to you, and ask yourself if you need to make changes in your life to be true to them.

- When making decisions, stop and consider your options: Which choice is most consistent with your values? Don’t allow expediency or peer pressure to have undue influence over your actions. Your choices and actions tell those around you what you stand for.
- Are you currently engaging in any spiritual practices or expressing your spirituality in other ways? Find an activity or organization that fits your values and your schedule.

**HAVE FUN!** Don’t make a chore of your efforts to achieve good health and wellness. Wellness is about living with joy and vitality. Cultivate your sense of humor: Laughter improves health and makes you and everyone around you feel better.

How do your health habits compare with the description of a healthy lifestyle in this section? If you’re like most people, you are doing well in some areas but could improve in others.

You can use Lab Activity 1-1 to identify areas of concern for you. In Chapter 2, you’ll learn more about strategies and techniques for making changes in your health behaviors to improve wellness in both the short and the long terms.

## Other Factors That Influence Wellness

**Q** Is my health mostly dependent on my genes and family history?

Genetic inheritance can affect your risk for certain diseases, but in most cases, your genes are just one factor in your disease



## Fast Facts

### Be a Volunteer

One in four Americans (24.9 percent of the population) ages 16 years and older volunteer each year, for an average of about 52 hours per year. Women are more likely to volunteer than men, and rates of volunteerism increase with education level. Popular volunteer activities are preparing and distributing food, fundraising, donating general labor, and supervising youth sports teams. Others include visiting home-bound older adults, working with youth service groups, helping out at an animal shelter, and getting involved in a church.

Volunteering pays significant personal dividends. It doesn't matter what you do—just find an organization and activity you want to support and get involved. You'll boost your wellness as well as serve your community.



Blend Images/Alamy Stock Photo

**Source:** U.S. Department of Labor, Bureau of Labor Statistics. (2016). *Volunteering in the United States, 2015* (<http://www.bls.gov/news.release/volun.nr0.htm>).

risk and overall health status. Some relatively rare diseases and disorders are caused by a single gene, but most diseases stem from a complex combination of biological, behavioral, and environmental factors.

Nevertheless, it is important to know your family health history. If you are aware that you are at elevated risk for a particular condition—for example, alcoholism or high cholesterol—you can make informed lifestyle choices to reduce that risk. Someone with a family history of high cholesterol can reduce her personal risk by choosing a diet low in saturated fat and high in fiber and by getting regular exercise.

Sometimes it can be difficult to separate the effects of genetic inheritance from those of health habits; many of us have copied the eating patterns and exercise habits of our parents or caregivers. So, you might have “inherited” both a genetic predisposition for high cholesterol and an eating pattern that increases your risk. Although you can't do anything about your genes, you can change your eating habits for the better.

In the previous section of the chapter, we looked at lifestyle behaviors that affect health and wellness. Let's look next at other factors that influence wellness.

**BIOLOGY.** Your biology includes your genetic makeup, family health history, and any mental or physical problems you may have developed. Certain health habits, such as

## Mind Stretcher

### Critical Thinking Exercise



What health habits did your parents and other family members have when you were growing up? Were family members active or sedentary? Did they smoke? What kinds of foods did they eat? How have your health habits, both positive and negative, been influenced by those of your family members and others with whom you grew up?



## Research Brief

### Healthy Living Counts . . . and Every Choice Matters

A great deal of research has gone into tying specific behaviors to health outcomes—smoking to lung cancer, for example. But it's also important to consider the effects of *combinations* of lifestyle factors. For example, if you smoke, does it matter if you lose weight? If you exercise regularly, is any extra benefit gained from a healthy diet?

One in four Americans has multiple chronic conditions. Eighty-one percent of individuals 65 and older have multiple conditions, as do 50 percent of those ages 45–64 and 18 percent of those ages 18–44.

Researchers examined data on more than 20,000 adults who were tracked for an average of 8 years. They looked at healthy lifestyle factors in relation to the study

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participants' risk of developing a major chronic disease (diabetes, heart attack, stroke, cancer). In the analysis, participants were awarded one point for each of four healthy lifestyle factors:

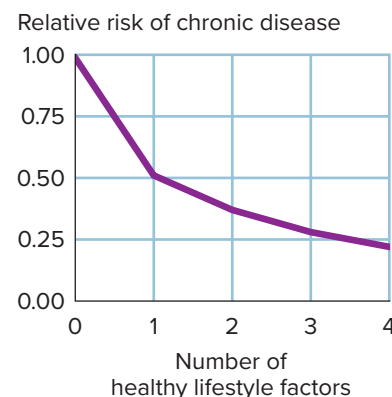
- Never having smoked
- Engaging in physical activity for 3.5 or more hours per week
- Having a healthy dietary pattern (high intake of fruits, vegetables, and whole grains, and low meat consumption)
- Having a body mass index (BMI) below 30 (BMI is a single number representing weight-to-height ratio; a BMI below 30 means that the person is not obese)

Researchers found that the risk of developing a chronic disease decreased progressively as the number of healthy factors increased. People with all four healthy factors had nearly an 80 percent lower risk of developing a chronic disease than participants without a healthy factor. But risk was also reduced for people with one, two, or three healthy factors. The risk reduction was most striking for diabetes, for which having one healthy factor lowered risk by more than 60 percent and having all four healthy factors lowered risk by 93 percent compared to having no healthy factors. A separate study determined “seniors with fewer behavioral

risk factors during middle age have lower disability and improved survival” into older age—an association that can continue into one's 90s.

#### Analyze and Apply

- Based on the research, what big conclusion might we draw regarding the impact of a healthy lifestyle on the risk for chronic disease?
- What is one unhealthy behavior that you can start changing *now*?



**Sources:** Buttorff, C., et al. (2017). *Multiple chronic conditions in the United States*. Santa Monica, CA: RAND Corporation; Centers for Disease Control and Prevention. (2014). Multiple chronic conditions (<http://www.cdc.gov/chronicdisease/about/multiple-chronic.htm>); Chakravarty, E., et al. (2012). Lifestyle risk factors predict disability and death in healthy aging adults. *The American Journal of Medicine*, 125(2), 190–197; Ford, E. S., et al. (2009). Healthy living is the best revenge. *Archives of Internal Medicine*, 169(15), 1355–1362.

smoking and drinking, can “change” your biology by altering the functioning of your cells and organs. Your age and sex can also be considered part of your biology—and both have a big effect on your health and wellness. But again, lifestyle choices can help reduce the impact of biology. For example, although bone density inevitably decreases with age, a healthy diet and regular weight-bearing exercise throughout your life help maintain bone density and reduce your risk of falling.

As described earlier, the health differences between the sexes may be due to a mix of biological, behavioral, and cultural factors. Sex differences that have a biological basis include the following:

- Men are taller, have more muscle mass, and are more likely to store excess body fat in the abdomen; women are shorter, have relatively less muscle mass (especially in the upper body), and are more likely to store excess body fat around the hips.
- Men have denser bones than women and have lower rates of osteoporosis (loss of bone mass that can lead to fractures).
- Women have a higher risk of lung cancer than men at a given level of exposure to cigarette smoke, and they become more intoxicated at a given level of alcohol intake.
- Women have stronger immune systems than men and are less susceptible to infectious diseases, but they have higher rates of autoimmune disorders (conditions in which the immune system attacks healthy cells by mistake).

- Women are more likely than men to be infected with a sexually transmitted infection during intercourse and are more likely to suffer severe effects, including infertility.
- Men are more likely than women to have cardiovascular disease. Men are also more likely to have classic heart attack symptoms like chest pain, whereas women are more likely to have atypical symptoms such as difficulty breathing and extreme fatigue.

What about race or ethnicity? As with sex and gender, health differences among population groups usually stem from a mixture of factors—some biological/genetic and some based on lifestyle, culture, or socioeconomic factors. For example, Latinos have higher rates of diabetes than African Americans and Caucasians, and African Americans have above-average rates of high blood pressure. Just like knowing your family's health history, it's important to be aware of any health conditions for which you may be at elevated risk due to your ethnicity; in some cases, earlier or more frequent screening may be advisable. For more information, visit the Web site for the CDC Office of Health Equity (<http://www.cdc.gov/minorityhealth/>).

**SOCIAL AND ECONOMIC FACTORS.** Your social environment includes all your interactions with people in your community. It also includes social institutions such as schools and law enforcement as well as factors such as the quality of housing, the availability of public transportation, and the level of violence.

The economic level of a community has a big impact on its citizens' health, and the nation's poorest are at the greatest risk for poor health. Residents of higher-income communities have better access to high-quality health care, schools, and even grocery stores carrying fresh fruit and vegetables than do people in lower-income communities. In lower-income communities, health care services may be very limited, and people may not be able to afford options that require high out-of-pocket expenses. Lower-income communities tend to lack the political clout needed to keep pollutants and other hazards out of their neighborhoods, and they typically lack easy access to walking trails and bicycle lanes. And because high school drop-out rates are higher in poor communities, it is difficult for people to land higher-paying jobs that would improve their economic prospects. They are also more likely to be injured on the job. Health disparities and income disparities are therefore inextricably linked and must be addressed in tandem.

**PUBLIC POLICIES AND INTERVENTIONS.** Health promotion campaigns and disease prevention services can affect health positively. Laws mandating child safety seats have increased safety for infants and children. Restrictions on smoking have had a positive effect on the health of non-smokers and also encouraged smokers to quit. Think about it: How might you help promote positive changes to public policy that would improve people's health in your community?

## Wellness: What Do You Want for Yourself—Now and in the Future?

**Q** What does it feel like to be well?

It feels great! Wellness is characterized by feelings of energy, vitality, curiosity, empowerment, and enjoyment—a high quality of life. It also means that you are consciously engaged in achieving your full potential in all the wellness dimensions.

How do you rate your own levels of health and wellness today? Are you optimally healthy and living to your full



Wellness is associated with vitality, joy, optimism, curiosity, empowerment, and many other characteristics exemplifying a high quality of life.

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potential? Have you genuinely achieved a high level for each dimension of wellness? How does your lifestyle compare to the healthy lifestyle described in this chapter?

You probably have room for improvement, in terms of both your lifestyle behaviors and the degree to which you've developed all the dimensions of wellness. The good news is that you can decide what kind of future you want. Wellness is something everyone can work on and improve. It comes from the choices you make every day. Any improvements to your wellness behaviors will bring immediate benefits, as well as a feeling of empowerment.

Do you want to make changes but aren't sure how to get started? In the next chapter, you'll review principles of behavior change and examine strategies for making positive changes in your own life. You can apply the model of behavior change to any health-related behavior; keep the principles in mind as you work your way through subsequent chapters, each of which examines a specific area of health or health behavior.

And remember, you can start from anywhere. Don't worry if you feel like others are ahead of you or do some things better than you. This book and the next chapters are about you and your wellness choices—and even small steps will move you forward!

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## Summary

Health is a condition with multiple dimensions that falls on a continuum from negative health, characterized by illness and premature death, to optimal health, characterized by the capacity to enjoy life and to withstand life's challenges. Wellness is an active process of adopting patterns of behavior

that can improve health and perceptions of well-being and quality of life in terms of multiple, intertwined dimensions. The dimensions of wellness—physical, emotional, intellectual, social, spiritual, and environmental—are closely connected and must be developed in a balanced way for overall wellness.

Health status can be assessed through life expectancy, days and years of healthy life, and a review of the leading and underlying causes of death. Healthy lifestyle behaviors include the following:

- Be physically active.
- Choose a healthy diet.
- Maintain a healthy weight.
- Avoid tobacco in all forms.
- Manage stress and get adequate sleep.
- Limit alcohol consumption.
- Avoid risky behaviors.

- Limit exposure to radiation and toxins.
- Practice good self-care.
- Seek appropriate medical care.
- Apply critical thinking skills as a health consumer.
- Cultivate relationships and social support.
- Take time to nourish your spiritual side.
- Have fun.

Other factors include family history, income and educational attainment, the environment, access to health care, and public policies.

### Test Your Understanding

1. Explain the ways in which obesity contributes to reduced life expectancy.
2. Select two risk factors from the following list, and compare and contrast their influence on the overall health of young adults: violence, depression, accidents, assault.
3. Describe two common health issues facing college students. How do these health issues affect overall wellness?
4. Discuss two risky behaviors to avoid in order to decrease the risk of injury or illness.
5. Describe how one behavior or activity can affect or be affected by multiple components of wellness.

### More to Explore

- American Academy of Family Physicians (FamilyDoctor.org)**  
<http://familydoctor.org>
- Centers for Disease Control and Prevention: Healthy Living**  
<http://www.cdc.gov/HealthyLiving>
- Healthy People Initiative**  
<http://www.healthypeople.gov>
- MedlinePlus**  
<http://www.medlineplus.gov>
- National Wellness Institute**  
<http://www.nationalwellness.org>

- Surgeon General's Family Health History Initiative**  
<http://www.hhs.gov/familyhistory>
- U.S. Department of Health and Human Services: Health Topics A to Z**  
<http://www.healthfinder.gov/healthtopics/>
- U.S. Department of Health and Human Services: Prevention & Wellness**  
<http://www.hhs.gov/programs/prevention-and-wellness/index.html>



## LAB ACTIVITY 1-1 Wellness Lifestyle Assessment

NAME

DATE

SECTION

This lab activity will help you identify your positive and negative wellness lifestyle behaviors.

**Equipment:** None

**Preparation:** None

### Instructions

For each wellness behavior listed below, place a check in the column with the answer that best describes your behavior.

	A ALMOST ALWAYS	B SOME TIMES	C ALMOST NEVER
1. I engage in at least 150 minutes per week of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity exercise or an equivalent combination of the two.			
2. I perform muscular strengthening activities of moderate intensity that involve all major muscle groups at least 2 times per week.			
3. I perform stretching and or balance exercises.			
4. I spend some leisure time each week engaged in physical activity.			
5. I eat at least 7 servings of fruits and vegetables a day.			
6. I avoid skipping meals.			
7. I limit my intake of foods high in saturated and trans fats.			
8. I limit the amount of added sugars I consume from sweetened beverages, desserts, and similar products.			
9. I limit the amount of salt I consume.			
10. For breads, cereals, and other grain-based products, I choose whole-grain foods at least half the time.			
11. I check food labels, ingredient lists, and nutrition information at restaurants in order to make informed choices.			
12. I maintain a healthy weight, avoiding overweight or underweight.			
13. I get 7–8 hours of sleep each night.			
14. I don't smoke cigarettes, cigars, or any other form of tobacco.			
15. I don't use smokeless (spit) tobacco.			
16. I avoid exposure to secondhand smoke.			
17. I use alcohol in moderation (1 drink or less per day for women; 2 drinks or less per day for men) or not at all.			
18. I do not use alcohol or any substance to the point of intoxication.			
19. I use over-the-counter medications as directed.			
20. I use prescription drugs as prescribed.			
21. I avoid unproven, dangerous, and illegal substances, including steroids, as well as unproven health remedies.			
22. I practice good dental care by brushing my teeth 2 or more times a day, flossing at least once per day, and having a dental checkup at least once a year.			
23. I have medical checkups annually or as suggested by my physician in order to obtain all recommended screening tests.			

## LAB ACTIVITY 1-1

			A ALMOST ALWAYS	B SOME TIMES	C ALMOST NEVER
24. I get recommended immunizations.					
25. I obtain only medically necessary X-rays.					
26. I manage any chronic medical conditions (e.g., asthma, migraines, allergies, diabetes, seizure disorder) according to the advice of my health care practitioner.					
27. I abstain from sex or engage in safe-sex practices.					
28. I wash my hands frequently over the course of the day.					
29. I use sunscreen as directed and use protective clothing (e.g., a wide-brimmed hat) as needed when working or playing outside.					
30. I don't try to tan, either from exposure to the sun or through use of tanning lamps or salons.					
31. I keep my computer desk or other workspace set up in a way that allows me to maintain good posture and minimize stress on my body.					
32. I use appropriate protective equipment when participating in recreational activities that require such equipment.					
33. I use appropriate protective equipment for occupational activities that require such equipment.					
34. I am actively responsible for my personal safety by being aware of my surroundings, avoiding being alone in unprotected areas, locking doors and windows when appropriate, and so on.					
35. If I have access to a firearm, I store it securely and use it safely.					
36. I do not talk on the phone, send text messages, or engage in other distracting activities while driving.					
37. I wear a seat belt when driving or riding in a car.					
38. I avoid driving while under the influence of alcohol or other drugs or riding with others who are under the influence.					
39. I obey the rules of the road by not speeding or tailgating, by always signaling before I turn or change lanes, and by adjusting my speed and driving to road and weather conditions.					
40. I recycle paper, plastic, and other appropriate items, and I reuse items such as shopping bags.					
41. I take steps to conserve energy and water (e.g., turning off lights and faucets, carpooling).					
42. I avoid environmental toxins and areas or times of day with high pollution levels.					
43. I manage stress in positive ways (e.g., physical activity, time management, deep breathing).					
44. I have sought or would seek help for depression or another mental health concern.					
45. I maintain a group of close friends I can confide in and ask for help or support.					
46. I manage my anger in ways that are not harmful to myself or others.					
47. I resolve conflicts with family, friends, coworkers, and fellow students in positive, respectful ways.					

			A ALMOST ALWAYS	B SOME TIMES	C ALMOST NEVER
48. I feel a sense of connectedness with others.					
49. I accept responsibility for my own feelings.					
50. I accept responsibility for my own actions.					
51. I engage in activities that are consistent with my beliefs and values.					
52. I spend time each day in prayer, meditation, or personal reflection.					
53. I participate in university and/or community events, or I volunteer.					
54. I like my job.					
55. I take at least a little time each day to relax and engage in a hobby or other activity I enjoy.					
56. I make a budget, track my spending, and keep my finances under control.					
57. I manage my time well through strategies such as setting priorities, creating to-do lists, and managing my schedule using a planner.					
58. I am motivated to learn new information and skills, and I actively seek ways to challenge my mind and seek intellectual growth.					
59. I gather and evaluate information in order to make sound decisions about health and wellness.					
60. I am able to set realistic goals for myself and work toward them.					
<b>TOTAL NUMBER OF RESPONSES IN EACH COLUMN</b>					

### Results

To calculate your score, add up the total number of responses in each column and copy them onto the appropriate lines below. Multiply the total for column A by 2, the total for column B by 1, and the total for column C by 0. Add the final three numbers together for your total score, and then find your rating on the table.

Total for column A	<input type="text"/>	× 2 points =	<input type="text"/>	<b>Rating</b>	<b>Total score</b>
Total for column B	<input type="text"/>	× 1 points =	<input type="text"/>	Excellent	110–120
Total for column C	<input type="text"/>	× 0 points =	<input type="text"/>	Good	90–109
<b>Total Score</b>			<input type="text"/>	Fair	60–89
				Needs attention	Less than 60

### Reflecting on Your Results

How did you score? Were you surprised by number of wellness lifestyle behaviors you currently engage in—or don't engage in? Do your results give you encouragement or cause concern?

## LAB ACTIVITY 1-1

Select two behaviors of concern for you—something for which you checked “Almost never” or something for which you checked “Sometimes” but which you know is a problem for you (for example, smoking, drinking until intoxicated, never exercising). For each behavior, make a list of the ways in which it affects the different dimensions of wellness—positively as well as negatively. For example, smoking is physically and environmentally harmful, but it may make you feel better physically and emotionally in the short term; you may enjoy smoking with certain friends, but you may miss out on other social activities due to your habit.

Behavior 1: \_\_\_\_\_  
How it impacts the dimensions of wellness:

Behavior 2: \_\_\_\_\_  
How it impacts the dimensions of wellness:

### Planning Your Next Steps

Any behavior for which you didn’t check “Almost always” is a possible candidate for change and improvement. Choose five behaviors from the assessment that you are most interested in changing and list them below. For each, give one reason you’d like to change the behavior.

Behavior 1: \_\_\_\_\_  
Reason to change:

Behavior 2: \_\_\_\_\_  
Reason to change:

Behavior 3: \_\_\_\_\_  
Reason to change:

Behavior 4: \_\_\_\_\_  
Reason to change:

Behavior 5: \_\_\_\_\_  
Reason to change:



## LAB ACTIVITY 1-2 Dimensions of Wellness Self-Evaluation

NAME

DATE

SECTION

This activity will help you identify wellness strengths and the behaviors that support or detract from each dimension of wellness.

**Equipment:** None

**Preparation:** None

### Instructions

For each dimension, fill in the characteristics, attributes, or abilities you currently possess that you think represent your *strengths*. Also fill in your lifestyle behaviors that support and detract from each dimension; if needed, review Lab Activity 1-1 for ideas. Because behaviors affect multiple dimensions, you can enter a particular lifestyle behavior under more than one dimension. After you complete the chart for a dimension, rate yourself for that dimension by assigning a score from 1 to 10 (1 is low, 10 is high).

Physical wellness—The complete physical condition and functioning of the body			My score: _____
Physical wellness strengths (e.g., muscular strength, healthy blood pressure)	Behaviors that support physical wellness (e.g., adequate sleep, regular exercise)	Behaviors that detract from physical wellness (e.g., binge drinking, tanning salon use)	

Emotional wellness—The ability to manage and express emotions in constructive and appropriate ways			My score: _____
Emotional wellness strengths (e.g., optimism, trust, self-confidence)	Behaviors that support emotional wellness (e.g., writing in a journal every week)	Behaviors that detract from emotional wellness (e.g., using food to manage stress)	

Intellectual wellness—Developing and enhancing critical thinking, decision- making, and problem-solving skills			My score: _____
Intellectual wellness strengths (e.g., common sense, curiosity, creativity)	Behaviors that support intellectual wellness (e.g., keeping up-to-date on health-related recommendations)	Behaviors that detract from intellectual wellness (e.g., getting product information from commercial Web site)	

<b>Social wellness</b> —The ability to maintain positive, healthy, satisfying interpersonal relationships			My score: _____
Social wellness strengths (e.g., supportive, compassionate, trustworthy)	Behaviors that support social wellness (e.g., regularly contacting friends)	Behaviors that detract from social wellness (e.g., being a poor listener)	

<b>Spiritual wellness</b> —Developing a set of values, beliefs, or principles that give meaning and purpose to life and guide your actions and choices			My score: _____
Spiritual wellness strengths (e.g., faith, tolerance, altruism)	Behaviors that support spiritual wellness (e.g., prayer, volunteer work)	Behaviors that detract from spiritual wellness (any behavior that goes against personal values)	

<b>Environmental wellness</b> —The condition and livability of the local environment and the planet as a whole			My score: _____
Environmental wellness strengths (e.g., awareness of environmental effects of actions)	Behaviors that support environmental wellness (e.g., recycling, taking public transit)	Behaviors that detract from environment wellness (e.g., buying products with lots of packaging)	

### Results

Enter the scores (1–10) you assigned for each level of wellness.

	SCORE (1–10)		SCORE (1–10)		SCORE (1–10)
Physical wellness		Intellectual wellness		Spiritual wellness	
Emotional wellness		Social wellness		Environmental wellness	

### Reflecting on Your Results

What is your wellness status? What are your strongest and weakest dimensions, and why? When you thought about each dimension individually, were you surprised—positively or negatively—by how many strengths and supportive behaviors you were able to identify? Do you feel balanced in terms of all of the dimensions of wellness?

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### Planning Your Next Steps

Choose one dimension in which you'd like to improve, and describe at least three specific strategies that would help you build wellness in that area.

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# Positive Choices/ Positive Changes

## 2



### COMING UP IN THIS CHAPTER

- Identify the factors that influence your wellness behaviors
- Develop strategies for increasing your motivation to change for the better
- Apply techniques that match your stage in the change process
- Develop a personalized plan for successful behavior change, including appropriate goals and strategies for overcoming barriers

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