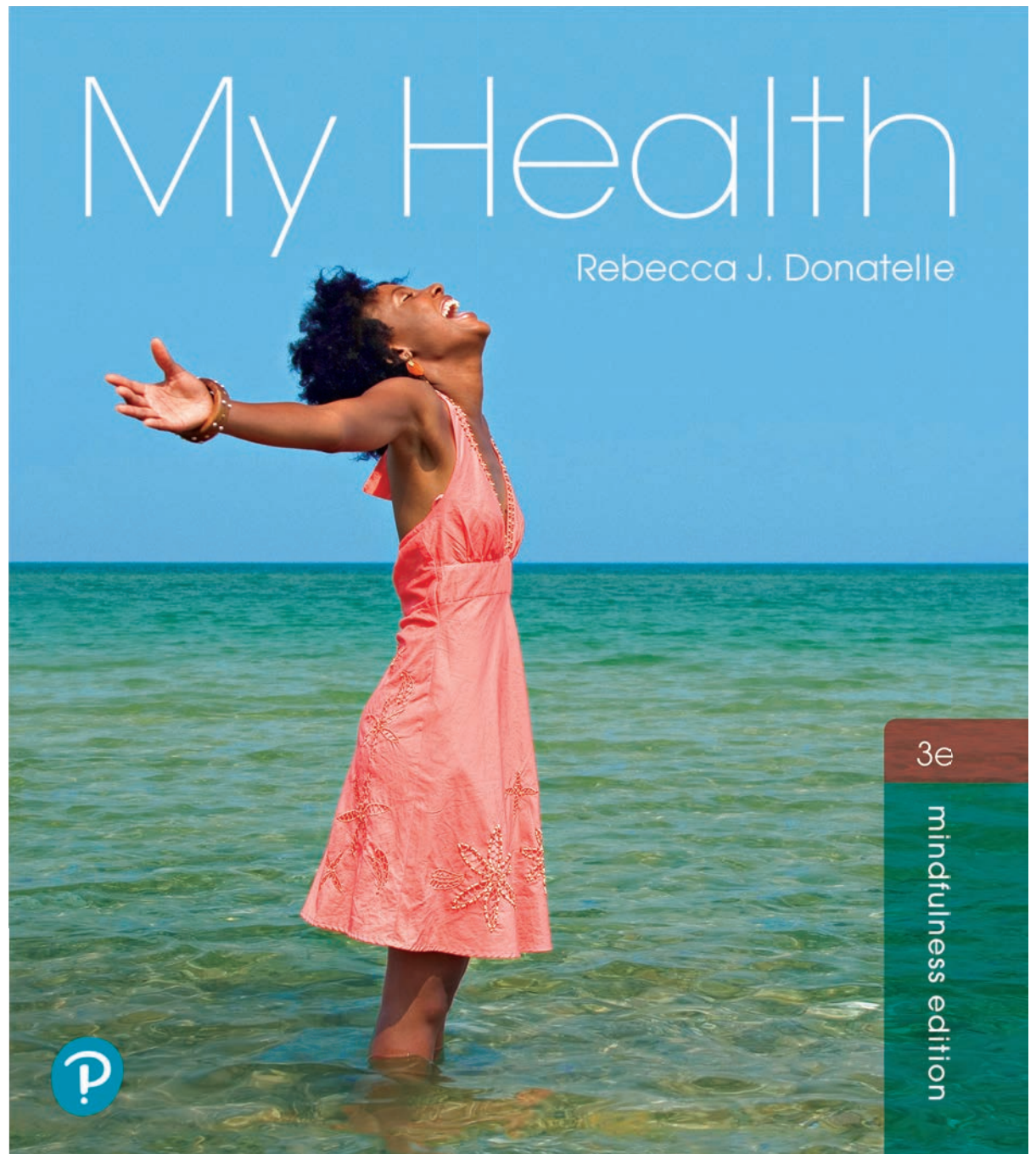


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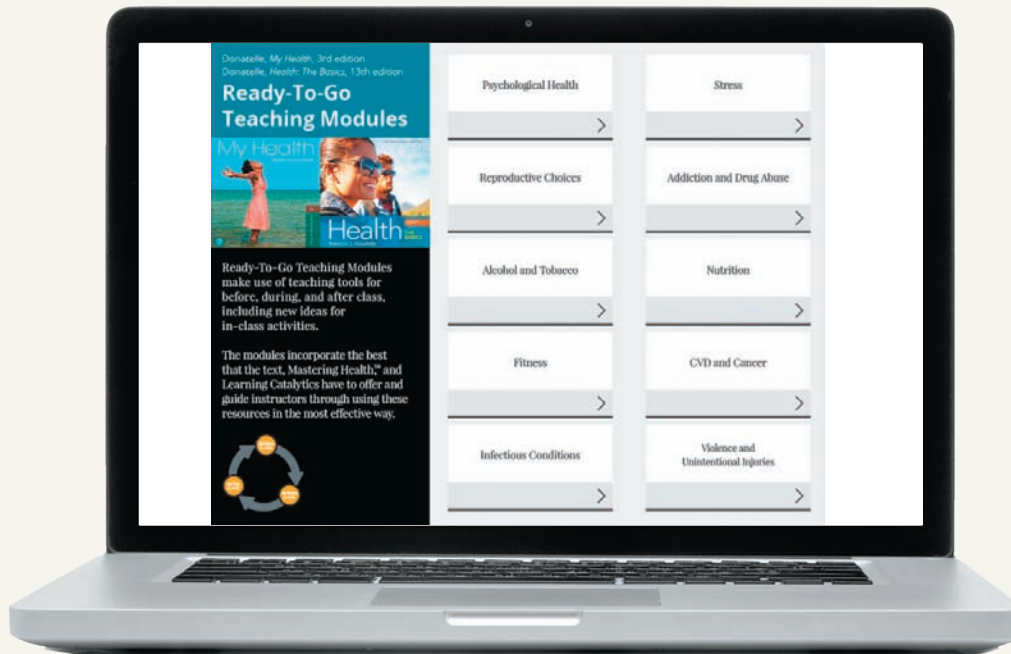


YOUR TEXTBOOK—IN A BINDER-READY EDITION!

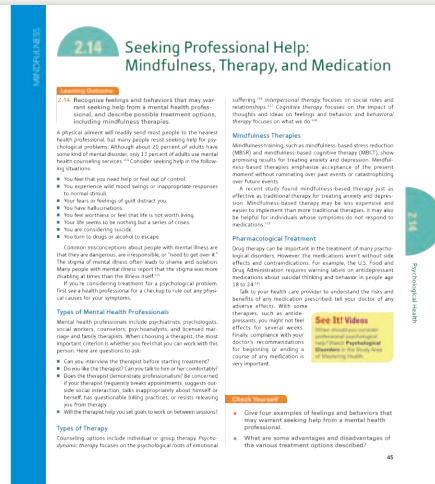
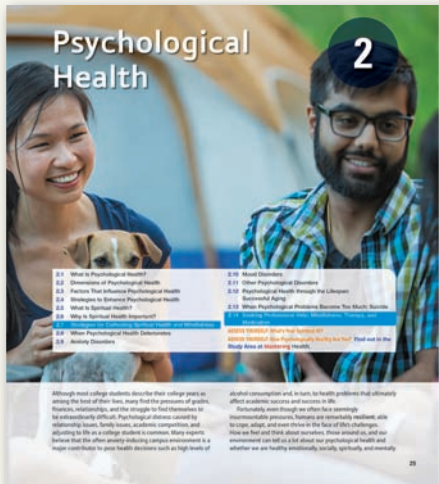
This unbound, three-hole punched version of your textbook lets you take only what you need to class and incorporate your own notes—all at an affordable price!

Get Ready for a Whole New Mastering Health Experience

New! Ready-to-Go Teaching Modules help instructors find the best assets to use before, during, and after class to teach the toughest topics in Personal Health. These curated sets of teaching tools save you time by highlighting the most effective and engaging videos, quizzing, coaching, self-assessment, and behavior change activities to assign within **Mastering™ Health**.



A Focused Approach to Engage Students in Health Content



NEW! A Mindfulness Theme throughout the book relates mindfulness research and practices to topics ranging from relationships to mindful eating to stress management and more. Mindfulness modules are highlighted on the chapter opener page and signaled with a blue banner at the start of the module. In addition, there is increased coverage of diversity and access to health care and of sleep and health.

NEW! Think About It questions added to the end of each end-of-chapter Study Plan provide students the opportunity to strengthen their critical thinking skills.

Study Plan Visit the Study Area in Mastering Health to enhance your study plan with Self-Assessment Worksheets, MP3 Tutor Sessions, Practice Quizzes, Flashcards, and more!

Summary

LO 3.1 Stress is an inevitable part of our lives. *Eustress* refers to stress associated with positive events; *distress* refers to negative events.

LO 3.2 The alarm, resistance, and exhaustion phases of the general adaptation syndrome (GAS) involve physiological responses to both real and imagined stressors and cause complex hormonal reactions.

LO 3.3 *Ultradian* stress for extended periods of time can compromise the immune system. Stress has been linked to cardiovascular disease (CVD), weight gain, headaches, hair loss, diabetes, digestive problems, and increased susceptibility to infectious diseases. Psychoneuroimmunology is the science that analyzes the relationship between the mind's reaction to stress and immune function. Stress can affect intellectual and psychological health and contribute to depression and anxiety.

LO 3.4 Sleep conserves body energy and restores physical and mental functioning.

LO 3.5 Psychosocial factors contributing to stress include change, hassles, relationships, pressure, conflict, overload, and environmental stressors. Persons subjected to discrimination or bias may face unusually high levels of stress.

LO 3.6 Some sources of stress are internal and related to appraisal, self-esteem, self-efficacy, personality, and psychological hardness and resilience.

LO 3.7–3.11 College can be stressful. Recognizing the signs of stress is the first step toward better health. To manage stress, find coping skills that work for you—probably some combination of managing emotional responses, taking mental or physical action, downsizing, time management, managing finances, relaxation techniques, and mindfulness strategies.

Pop Quiz

Visit Mastering Health to personalize your study plan with Chapter Review Quizzes and Dynamic Study Modules.

LO 3.1.1 Even though Andre experienced stress when he graduated from college and moved to a new city, he viewed these changes as

an opportunity for growth. What is Andre's stress called?

- Strain
- Distress
- Eustress
- Adaptive response

LO 3.1.2 Which of the following is an example of a chronic stressor?

- Giving a talk in public
- Meeting a deadline for a big project
- Dealing with a permanent disability
- Preparing for a job interview

LO 3.2.3 During what phase of the general adaptation syndrome does the physical and psychological energy used to fight the stressor become depleted?

- Alarm phase
- Resistance phase
- Endurance phase
- Exhaustion phase

LO 3.2.4 In which stage of the general adaptation syndrome does the fight or flight response occur?

- Exhaustion stage
- Alarm stage
- Resistance stage
- Endurance stage

LO 3.2.5 The branch of the autonomic nervous system that is responsible for energizing the body for either fight or flight and for triggering many other stress responses is the

- central nervous system
- parasympathetic nervous system
- sympathetic nervous system
- endocrine system

LO 3.5.6 A state of physical and mental exhaustion caused by excessive stress is called

- conflict
- hassles
- overload
- burnout

LO 3.5.7 Losing your keys is an example of what psychosocial source of stress?

- Pressure
- Inconsistent behaviors
- Hassles
- Conflict

LO 3.6.8 Which of the following test-taking techniques is not recommended to reduce test-taking stress?

- Plan ahead and study over a period of time for the test.
- Eat a balanced meal before the exam.
- Do all your studying the night before the exam so it is fresh in your mind.
- Remind yourself of three reasons you will pass the exam.

LO 3.9.9 After 5 years of 70-hour workweeks, Tom decided to leave his high-paying, high-stress law firm and lead a simpler lifestyle. What is this trend called?

- Adaptation
- Conflict resolution
- Burnout reduction
- Downshifting

LO 3.9.10 Which of the following is not an example of a time-management technique?

- Doing one thing at a time
- Rewarding yourself for finishing a task
- Practicing procrastination in completing homework assignments
- Breaking tasks into smaller pieces

Answers to these questions can be found on page A.1. If you answered a question incorrectly, review the module identified by the Learning Outcome. For even more study tools, visit Mastering Health.

Think About It!

LO 3.1.1 Define stress. What are some examples of scenarios in which you might feel distress? Eustress?

LO 3.1.2 Why are the college years often high-stress times for many students?

LO 3.2.3 Describe the alarm, resistance, and exhaustion phases of the general adaptation syndrome and the body's physiological response to stress. Does stress lead to more irritability or emotionality, or does irritability or emotionality lead to stress? Provide examples.

LO 3.3.4 What are some of the health risks that result from chronic stress?

LO 3.3.5 How does anger affect the body? Discuss how mindfulness strategies could help you control your anger and remain calm as you think about things that are bugging you right now.

LO 3.9.6 How much of a procrastinator are you? What sorts of situations make you the most likely to procrastinate? What could you do to reduce the likelihood of procrastinating in these situations?

LO 3.7–3.11.7 What are three important actions you can take right now to help manage your stressors?

and Empower Them with Behavior Change Strategies

Hallmark Feature! The modular organization ensures that students spend their study time efficiently and remain engaged. Student learning outcomes provide concrete learning goals, and Check Yourself questions provide the opportunity for students to immediately test their own understanding.

2.1 What Is Psychological Health?

Learning Objectives

2.1 Describe basic characteristics shared by psychologically healthy people, and identify each level in Maslow's hierarchy of needs.

Psychological health is the sum of how we think, feel, relate, and exist in our day-to-day lives. Our thoughts, perceptions, emotions, motivations, interpersonal relationships, and behaviors are the product of a combination of our experiences and the skills we have developed to meet life's challenges. Most experts identify several basic elements shared by psychologically healthy people:

- They feel good about themselves. They are not typically overwhelmed by fear, live, anger, jealousy, guilt, or worry. They know who they are, have a realistic sense of their capabilities, and respect themselves even though they realize that they aren't perfect.
- They feel comfortable with other people and express respect and compassion toward others. They enjoy satisfying and lasting personal relationships and do not take advantage of people or allow others to take advantage of them. They recognize that there are others whose needs are greater than their own and take responsibility for their fellow human beings. They can give love, consider others' interests, take time to help others, and respect personal differences.
- They control tension and anxiety. They recognize the underlying causes and symptoms of stress and anxiety in their lives and consciously avoid irrational thoughts, hostility, excessive excuse making, and blaming others for their problems. They use resources and learn skills to control their reactions to stressful situations.
- They meet the demands of life. Psychologically healthy people try to solve problems as they arise, accept responsibility, and plan ahead. They set realistic goals, think for themselves, and make independent decisions. Acknowledging that change is inevitable, they welcome new experiences.
- They curb hate and guilt. They acknowledge and combat tendencies to respond with anger, thoughtlessness, selfishness, vindictiveness, or feelings of inadequacy. They do not try to knock other people aside to get ahead but rather reach out to help others.
- They maintain a positive outlook. They approach each day with a perspective that things will go well. They look to the future with enthusiasm rather than dread. Having fun and making time for themselves are integral parts of their lives.
- They value diversity. Psychologically healthy people do not feel threatened by people of different races, genders, religions, sexual orientations, ethnicities, or political parties. They are nonjudgmental and do not force their beliefs and values on others.
- They appreciate and respect nature. They take time to enjoy their surroundings, are conscious of their place in the universe, and act responsibly to preserve their environment.

Psychologists have long argued that before we can achieve any of the above characteristics of psychologically healthy people, we must have certain basic needs met in our lives. In the 1950s, psychologist Abraham Maslow developed a hierarchy

Figure 2.1 Maslow's Hierarchy of Needs
Mastering Health & Nutrition: Maslow's Hierarchy of Needs

Psychologically unhealthy

- He and she are the same person, but he is the one who is angry, sad, and lonely. He is not happy at all.
- He has no sense of direction. He is lost and confused.
- He is not confident in his abilities. He is always doubting himself.
- He is not happy with his life. He is always looking for something better.
- He is not happy with his relationships. He is always looking for someone better.
- He is not happy with his work. He is always looking for something better.
- He is not happy with his future. He is always looking for something better.

Psychologically healthy

- He and she are different people. He is the one who is happy, confident, and successful. He is the one who is the best person he can be.
- He has a sense of direction. He is confident and sure of himself.
- He is confident in his abilities. He is always believing in himself.
- He is happy with his life. He is always enjoying his life.
- He is happy with his relationships. He is always enjoying his relationships.
- He is happy with his work. He is always enjoying his work.
- He is happy with his future. He is always enjoying his future.

Figure 2.2 Characteristics of Psychologically Healthy and Unhealthy People
Where do you fall on this continuum?

of needs to describe this idea (Figure 2.1). At the bottom of his hierarchy are basic survival needs, such as food, sleep, water, and sexual expression. At the next level are security needs. Security needs include shelter, safety, and protection. Social needs make up the third level and include a sense of belonging and affection. At the fourth level are esteem needs: self-respect, respect for others, and accomplishment. Finally, at the top are needs for self-actualization and self-transcendence.

According to Maslow's theory, a person's needs must be met at each of these levels before that person can ever truly be healthy. Failure to meet any of the lower levels of needs will interfere with a person's ability to address upper-level needs. For example, someone who is homeless or worried about threats of violence will be unable to focus on fulfilling social, esteem, or actualization needs.

In sum, psychologically healthy people are emotionally, mentally, socially, and spiritually resilient. They most often respond to challenges and frustrations in appropriate ways, despite occasional slips (see Figure 2.2). When they do slip, they recognize that fact and take action to rectify the situation. Psychologically unhealthy people lack this resilience. They may struggle with relationships, feel "down" much of the time, and have trouble focusing.

Attaining psychological well-being involves many complex processes. This chapter will help you understand not only what it means to be psychologically well, but also why we may run into problems in our psychological health. Learning how to assess your own health and take action to help yourself are important aspects of psychological health.

Check Yourself!

- What are the basic characteristics shared by psychologically healthy people?
- What are basic characteristics of psychologically unhealthy people?
- At which level of Maslow's hierarchy of needs do you face the most challenges?

Skills for Behavior Change

Challenge the Thoughts That Sabotage Change

Are thought patterns and beliefs holding you back? Try these strategies:

- **"I don't have enough time!"** Chart your activities for 1 day. What are your highest priorities? What can you eliminate or reduce? Plan to make some time for a healthy change next week.
- **"I'm too stressed!"** Assess your major stressors right now. List those you can control and those you can change or avoid. Then identify two things you enjoy that can help you reduce stress now.
- **"I'm worried what others may think."** How much do other people influence your decisions about drinking, sex, eating habits, and the like? What is most important to you? What actions can you take to act in line with your values?
- **"I don't think I can."** Just because you haven't done something before doesn't mean you can't do it now. To develop confidence, take baby steps and break tasks into small chunks of time.
- **"I can't break this habit!"** Habits are difficult to break, but not impossible. What triggers your behavior? List ways you can avoid triggers. Ask for support from friends and family.

Hallmark Feature! Skills for Behavior Change strategies give students the tools they need to make immediate changes for healthier lifestyles. Strategies such as "How to Challenge Thoughts that Sabotage Change" or "Responding to an Offer of Drugs" empower students with the tools to create healthy change in their lives.

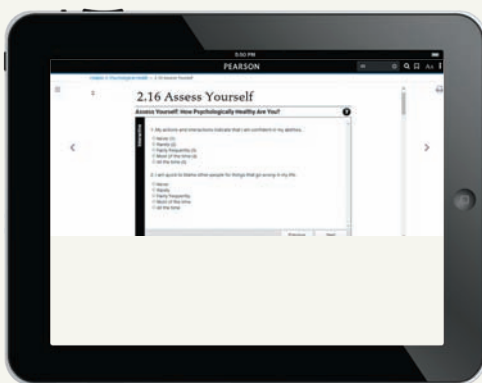
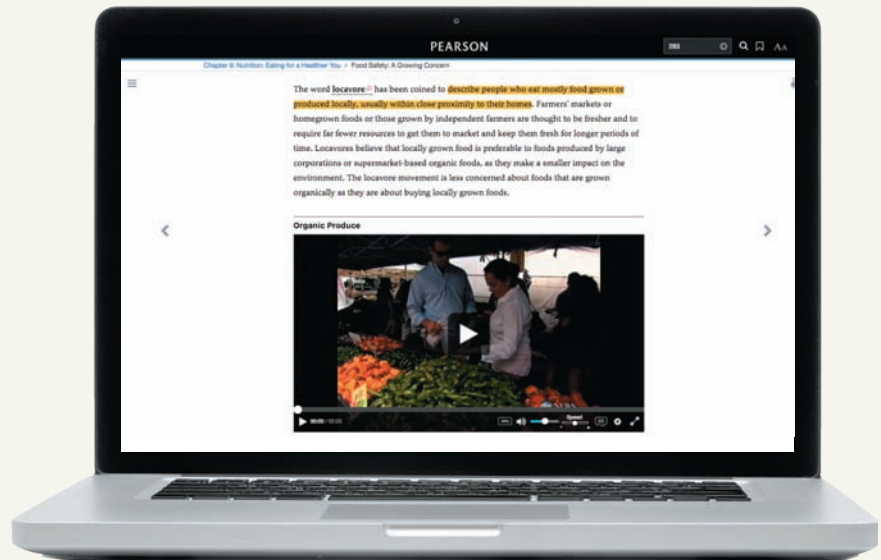
Continuous Learning Before, During, and After Class

BEFORE CLASS

Mobile Media and Reading Assignments Ensure That Students Come to Class Prepared.

NEW! Interactive Pearson eText gives students access to the text anytime, anywhere. Pearson eText features include:

- Offline access on smartphones/tablets
- Seamlessly integrated videos and other rich media.
- Interactive Self-Assessment Worksheets
- Accessible (screen-reader ready)
- Configurable reading settings, including resizable type and night reading mode
- Instructor and student note-taking, highlighting, bookmarking, and search



UPDATED! All Self-assessment worksheets formerly in the book are now offered online only and assignable in Mastering Health.

Pre-Lecture Reading Quizzes are easy to customize and assign

Reading Questions ensure that students complete the assigned reading before class. Reading Questions are 100% mobile ready and can be completed by students on mobile devices.

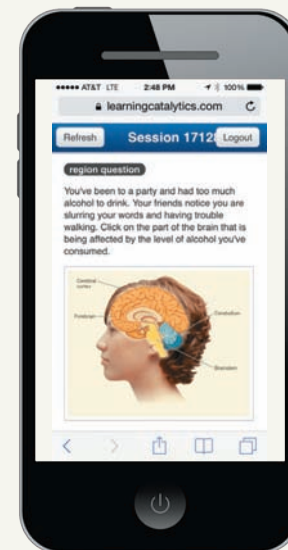
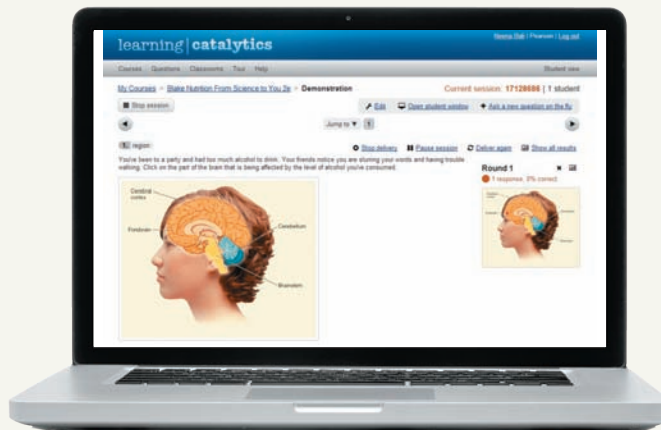
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DURING CLASS

Engage Students with Learning Catalytics.

What has teachers and students excited? Learning Catalytics, a “bring your own device” student engagement, assessment, and classroom intelligence system, allows students to use their smartphone, tablet, or laptop to respond to questions in class. With Learning Catalytics, you can:

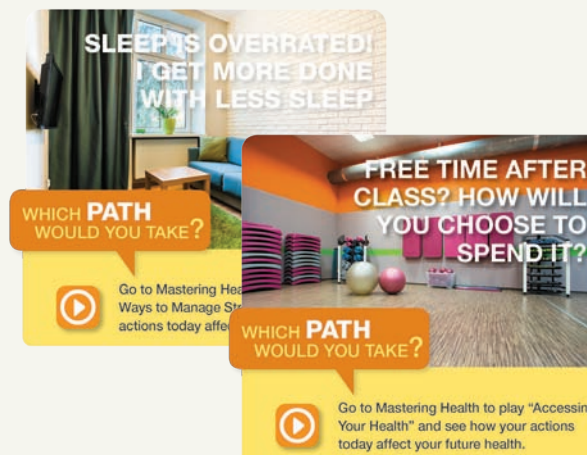
- Assess students in real time using open-ended question formats to uncover student misconceptions and adjust lectures accordingly.
- Automatically create groups for peer instruction based on student response patterns, to optimize discussion productivity.



AFTER CLASS

Mastering Health Delivers Automatically Graded Health and Fitness Activities

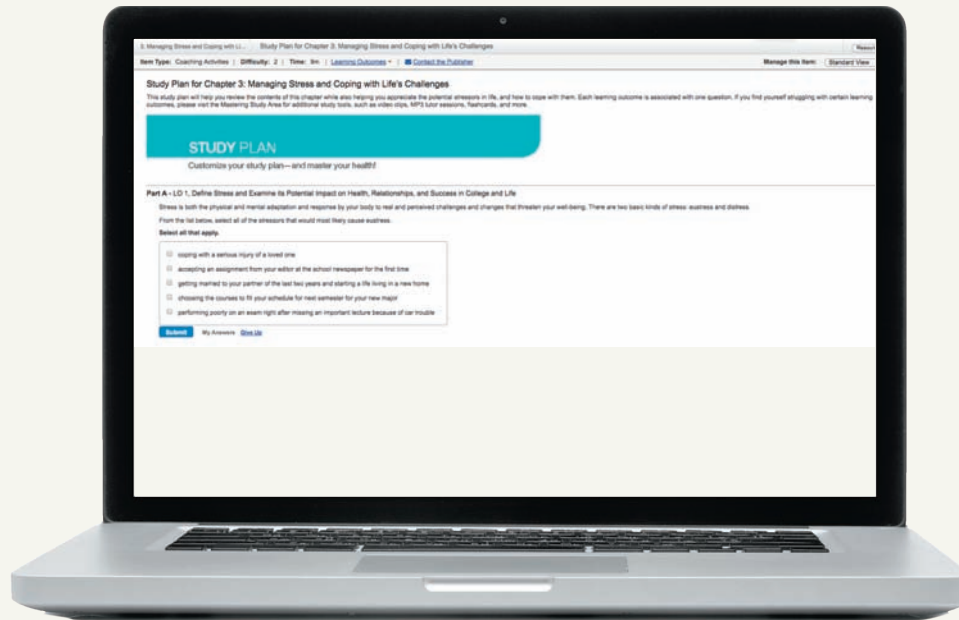
NEW! Interactive Behavior Change Activities—Which Path Would You Take? Have students explore various health choices through an engaging, interactive, low-stakes, and anonymous experience. These activities show students the possible consequences of various choices they make today on their future health and are made assignable in Mastering Health with follow-up questions.



Continuous Learning Before, During, and After Class

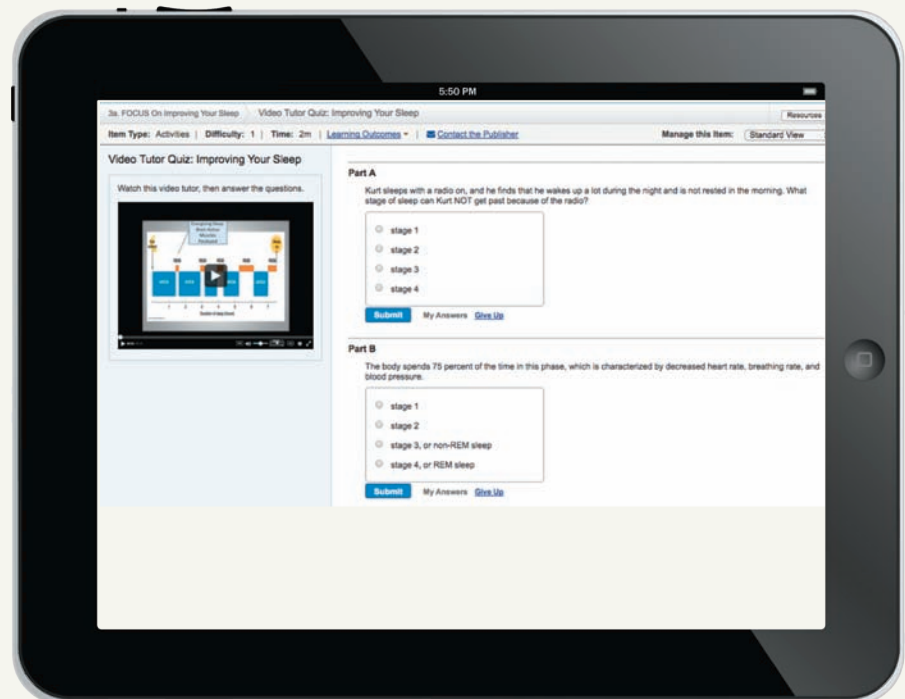
AFTER CLASS

Easy to Assign, Customize, Media-Rich, and Automatically-Graded Assignments

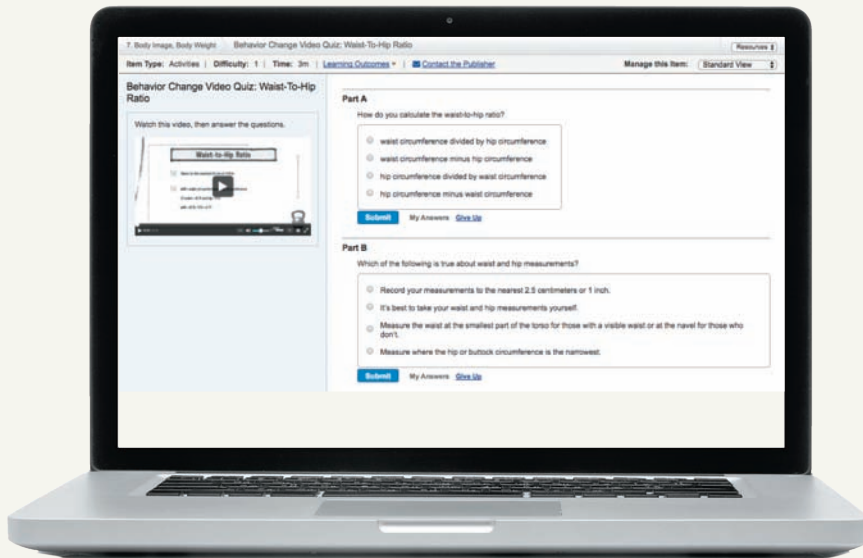


UPDATED! Study Plans Plans tie all end-of-chapter material (including chapter review, pop quiz, and Think About It questions) to specific numbered Learning Outcomes and Mastering assets. Assignable study plan items contain at least one multiple choice question per Learning Outcome and wrong-answer feedback.

HALLMARK! Video Tutors highlight a book figure or discussion point in an engaging video, covering key concepts such as how drugs act on the brain, reading food labels, and the benefits of regular exercise. All Video Tutors include assessment activities and are assignable in Mastering Health.

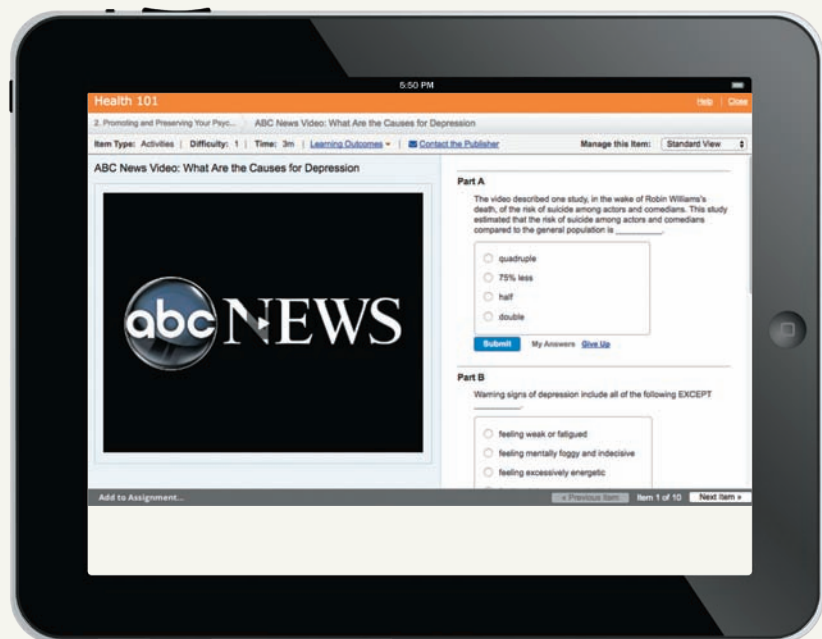


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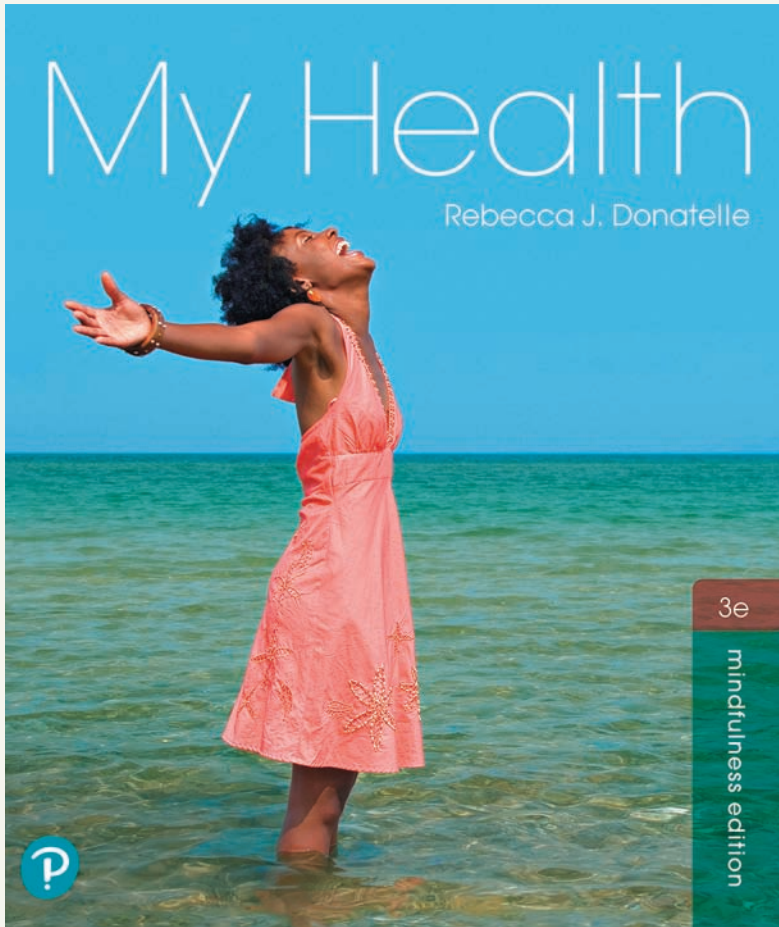


HALLMARK! Behavior Change Videos are concise whiteboard-style videos that help students with the steps of behavior change, covering topics such as setting SMART goals, identifying and overcoming barriers to change, planning realistic timelines, and more. Additional videos review key fitness concepts such as determining target heart rate range for exercise. All videos include assessment activities and are assignable in Mastering Health.

HALLMARK! ABC News Videos bring health to life and spark discussion with hot topics. Activities tied to the videos include multiple-choice questions that provide wrong-answer feedback to redirect students to the correct answer.



Resources for YOU, the Instructor



Mastering Health provides you with everything you need to prep for your course and deliver a dynamic lecture, in one convenient place. Resources include:

Media Assets For Each Chapter

- ABC News Lecture Launcher videos
- PowerPoint Lecture Outlines
- PowerPoint clicker questions and Jeopardy-style quiz show questions
- Files for all illustrations and tables and selected photos from the text

Test Bank

- Test Bank in Microsoft Word, PDF, and RTF formats
- Computerized Test Bank, which includes all the questions from the printed test bank in a format that allows you to easily and intuitively build exams and quizzes

Teaching Resources

- **New!** Ready-to-Go Teaching Modules
- Instructor Resource and Support Manual in Microsoft Word and PDF formats
- Learning Catalytics: Getting Started
- Getting Started with Mastering Health

Student Supplements

- Take Charge of Your Health Worksheets
- Behavior Change Log and Wellness Journal
- Eat Right!
- Live Right!
- Food Composition Table
- Study Area in Mastering Health, including flashcards, practice quizzes, MP3 Tutor Sessions, and more.

Measuring Student Learning Outcomes?

All of the Mastering Health assignable content is tagged to book content and to Bloom's Taxonomy. You also have the ability to add your own learning outcomes, helping you track student performance against your learning outcomes. You can view class performance against the specified learning outcomes and share those results quickly and easily by exporting to a spreadsheet.

My Health

Rebecca J. Donatelle



3e

mindfulness edition



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About the Author

Rebecca J. Donatelle, Ph.D.

Oregon State University

Rebecca Donatelle has served as a faculty member in the Department of Public Health, College of Health and Human Sciences, at Oregon State University for the last two decades. In that role, she has chaired the department and been program coordinator for the Health Promotion and Health Behavior Program (bachelor's degree, master of public health, and Ph.D. degree programs), and she has served on more than 50 national, state, regional, and university committees focused on improving student academic success and improving the public's health. Most important to her, she has taught and mentored thousands of undergraduate and graduate students. She is proud of the many outstanding accomplishments of her students! Many of these students gained community-based intervention and research skills while working on Dr. Donatelle's funded projects, and those experiences have led to exciting career paths nationally and internationally. Other students have gone on to receive advanced degrees in public health and have assumed leadership roles in a wide range of academic, community, and health care system positions. "I believe that my successes are measured in large part by the successes of the students I have worked with and the fact that, even when times are challenging, they continue to work for positive changes and improved health status for all," says Dr. Donatelle.

Dr. Donatelle has a Ph.D. in community health/health promotion and health education with specializations in health behaviors, aging, and chronic disease prevention from the University of Oregon; a master of science degree in health education from the University of Wisconsin, La Crosse; and a bachelor of science degree from the University of Wisconsin, La Crosse, with majors in health/physical education and English. In recent years, Dr. Donatelle has received several professional awards for leadership, teaching, and service within the university and for her work on developing nationally ranked undergraduate and graduate programs in the health promotion/health behavior areas.

Her primary research and scholarship areas have focused on finding scientifically appropriate means of motivating behavior change among resistant populations. Specifically, her work uses incentives, social and community supports, and risk communication strategies in motivating diverse populations to change their risk behaviors. She has worked with pregnant women who smoke in an effort to motivate them to quit smoking, obese women of all ages who are at risk for cardiovascular disease and diabetes, prediabetic women who are at risk for progression to type 2 diabetes, and individuals with a wide range of other health issues and problems. Her earlier research projects focused on decision making and factors influencing the use of alternative and traditional health care providers for treatment of low back pain, illness and sick role behaviors, occupational stress and stress claims, and worksite health promotion.

More recently, through her writing, she has been working to provide scientifically defensible, engaging ways to help students understand today's complex health and health care challenges, to ask the tough questions, and to understand that there are often no simple solutions to the myriad of health issues we face both in the United States and internationally. With this text in particular, she has worked to motivate students to approach their challenges in a mindful, thoughtful way; to take time to notice and to look within and outside themselves to really see, hear, and feel the life experience; and to act compassionately toward self and toward other people who are struggling with personal challenges. In particular, she challenges students to ask, "*How can I make the world a better place, for me, for others, and for future generations?*" Whether it be working to improve personal health behaviors, working to help others who are struggling, or working to improve the social, political, and macro health environment, her goal is to motivate students to become more engaged and be the health change agents of the future.

In addition to her writing, Dr. Donatelle enjoys playing acoustic guitar, gardening, camping and socializing with friends and family, and walks with her three rambunctious Westies!

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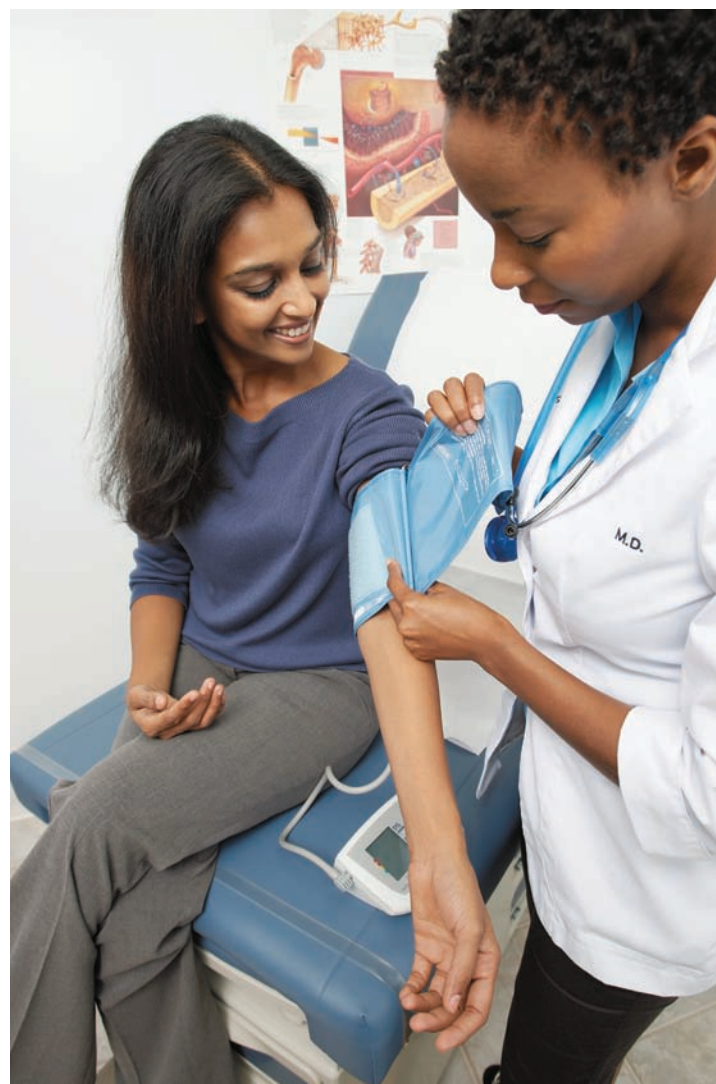


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Preface

Today, health is headline news—the kind of news that all too often can result in depression, fear, anxiety, anger, and frustration among viewers. If you are like most people, you might want to ask, “Isn’t there any good news out there?” From the latest cases of strange new pathogens carried into our homes by ticks, mosquitoes, or birds or passed on by a careless sexual relationship to the violence in the streets and threats of terrorism or nuclear bombs from other nations to the real-time catastrophic floods, fires, hurricanes, and other natural disasters brought on by climate change to the epidemic rates of diabetes, obesity, and soaring rates of mental health problems among youth and adults—the issues can seem overwhelming. However, although many things that influence our health are beyond our control, we are lucky that we do have control over many of the health risks we face. Health is multifaceted, and achieving it is a personal and societal responsibility. We can shape many of the things that influence us. It takes time, effort, patience, and a mindful approach.

As I have taught personal health courses over the past two decades, I have seen changes in students, especially regarding their health, their health concerns, and the way they assimilate information and make decisions about their health and the health of those around them. A new mode of instruction and a new approach to learning are required for instructors and textbook authors to present and relay scientifically valid information, create learning environments that meet diverse needs, and motivate students to engage in their own learning experiences. Students today want their information to be organized and concise. They want to know what they should be learning, see the relevance in knowing the information so that they can apply it to real world situations, and be able to test themselves to confirm that they understand the material and why it is important. What’s more, students and their instructors want to be able to demonstrate that they know more about their health, see things with a more critical eye, and have options for making changes to improve their health and the health of others as a result of a particular course or course sequence. When they want to delve more deeply into a given topic, they will have the skills and resources to get more information. While there will always be new and formidable challenges in achieving personal health and health equity for all, individuals who are armed with information, who listen and hear others’ points of view, and who take a reasoned approach to problem solving have the best chance of creating environments where people thrive. Creating a classroom and extended learning culture in which young minds ask themselves regularly, “What can I do to make the world a better place—a place where people can increase their years of healthy life?” has been a lifelong goal. For these reasons and more, I decided that the time had come to bring to fruition a new textbook that would change the health text marketplace. I decided to tap the creative minds of my colleagues and students and work with a great publishing company in writing the Mindfulness Edition of *My Health*.

Key Features of This Text

My Health: The Mindfulness Edition, Third Edition, maintains many features that this text is known for and includes exciting new features, including the following:

- **The modular organization**, which presents information in one- and two-page spreads, helping students to pace their learning and highlighting the most essential, up-to-date information about each topic in a synthesized, easy-to-understand format.
- **NEW! The mindfulness theme** throughout the text provides students with research and tools to incorporate mindfulness practices in all aspects of their health, helping them to be more focused in their academic and personal lives. Mindfulness coverage is contained within new modules and signaled by a blue banner.
- **NEW! Modules** on high interest topics such as Sleep, Diversity, and Health Equity.
- **Student learning outcomes**, which give instructors and students a measurable goal for each module and are matched specifically to the content in each module in the text. These take the guesswork out of the question that students inevitably ask: “What do I need to know for this exam or this performance outcome?”
- **Check Yourself questions** to help students confirm that they have mastered the content of each module.
- **Skills for Behavior Change boxes**, which are featured in many modules and are designed to help students develop the skills necessary to use what they have learned in making practical and important improvements in their health behaviors.
- **Striking figures and photos** on every page to engage students and encourage learning.
- **A streamlined approach**, helps students focus on the core health content, allowing them to follow the narrative without interruptions and feature boxes, and apply what they have learned at the end of each module.
- **New! Think About It critical thinking questions** are included in the end-of-chapter Study Plan material.

Student learning outcomes are a critical part of this book. Learning outcomes are a powerful tool to set clear expectations for students and to assess their level of mastery of a subject area. Outcomes for this text were developed on the basis of foundational personal health content appropriate for college-level learners. These outcomes were then revised and edited on the basis of careful review and input from health instructors and other experts from representative colleges and universities throughout the country (their names are listed later in the Acknowledgments section). Each module has a specific outcome that students must try to achieve to be successful. This mastery approach helps students home in on the relevant information and focus attention on achieving this learning outcome.

At the end of each module, students are challenged by Check Yourself questions. If students can successfully answer these questions, they are ready to move on to the next module. If they have difficulty answering the questions, they are able to go back through the material and focus on key points until they have mastered the module content.

We know that students are often pressed for time and may be able to read through only a few pages of this book in one sitting. With the learning outcomes and the Check Yourself questions, students can learn the material in one or two modules, test themselves, and know that they have accomplished a measurable portion of their reading goal, even if they can complete only part of a reading assignment.

In addition to the modular organization, learning outcomes, and Check Yourself questions, you will notice Skills for Behavior Change boxes throughout the chapters. Using the skills learned from these boxes, students can engage in behaviors that will contribute to improved health. You will also see that these are the only feature boxes in the text. To keep the book streamlined and focused on essential points, the type of information that has traditionally been relegated to a feature box has been included in the text, if it is important for student understanding, or has been omitted. I hope that you will agree that this provides students with a clear, concise presentation of the most important health information.

Chapter-by-Chapter Revisions

My Health: The Mindfulness Edition, Third Edition, has been thoroughly updated to reflect the most cutting-edge, scientifically valid, and relevant information available and includes additional references that will allow students to glean additional information from key sources in the area. Portions of modules have been reorganized to improve the flow of topics, while figures, tables, and photos have all been added, improved on, and updated. The following is a chapter-by-chapter listing of some of the most noteworthy changes, updates, and additions.

Chapter 1: Healthy Change

- New mindfulness module on how mindfulness influences health
- New module on diversity
- Reorganized section on *Healthy People 2020*, including adding description of leading health indicators
- New coverage of the Affordable Care Act (ACA) and issues with health care in the United States today
- New Think About It end-of-chapter questions

Chapter 2: Psychological Health

- New mindfulness module on meditation
- New mindfulness module on mindfulness therapies
- New Skills for Behavior Change box on relationships
- New module on the importance of spiritual health
- New Assess Yourself on spiritual health
- Added coverage of Seligman's happiness theory (PERMA)
- New Think About It end-of-chapter questions

Chapter 3: Stress

- New mindfulness module on relaxation and stress reduction
- Increased coverage on sleep
- New section on happiness and flourishing
- New section titled "Men and Women Respond to Stress Differently"
- New section on shift and persist
- New Think About It end-of-chapter questions

Chapter 4: Relationships and Sexuality

- New mindfulness module on mindful listening and nonverbal skills
- New module on relationships and social media
- New module on using technology responsibly
- New Think About It end-of-chapter questions

Chapter 5: Reproductive Choices

- New section on abortions in the developing world
- New section on contingency planning for parents
- Expanded coverage of nutrition and exercise in prenatal care
- New Think About It end-of-chapter questions

Chapter 6: Addiction and Drug Abuse

- New mindfulness module on treatment, recovery, and relapse prevention
- New figure on college students who use drugs and employment rates
- New information about medicinal and legal marijuana
- New content on harm reduction strategies
- New Think About It end-of-chapter questions

Chapter 7: Alcohol and Tobacco

- New mindfulness module on smoking cessation
- New content on e-cigarettes
- New content on different ethnicities and alcoholism
- New Think About It end-of-chapter questions

Chapter 8: Nutrition

- New mindfulness section on mindful eating
- New module on the health benefits of functional foods
- New content on the Dietary Reference Intakes (DRIs)
- New Think About It end-of-chapter questions

Chapter 9: Weight Management and Body Image

- New mindfulness module on mindless versus mindful eating
- New Skills for Behavior Change box on portion distortion
- New figure showing an overview of methods to measure body composition
- Expanded coverage of treatment of anorexia and bulimia
- New table on popular diet programs and their effectiveness
- New Think About It end-of-chapter questions

Chapter 10: Fitness

- New mindfulness module on fitness plans and staying motivated
- Expanded coverage of SMART fitness goals and objectives

- New coverage of physical inactivity
- New coverage of alcohol and exercise
- New Think About It end-of-chapter questions

Chapter 11: CVD, Cancer, and Diabetes

- New mindfulness module on mindfulness-based interventions for cancer patients
- New table on the signs of a heart attack in men and women
- New Skills for Behavior Change box on recognizing the signs of a stroke
- Increased coverage on diabetes prevalence rates and risks
- New Skills for Behavior Change box on reducing your risk for diabetes
- New module on diabetes diagnosis and treatment
- New Think About It end-of-chapter questions

Chapter 12: Infectious Conditions

- New mindfulness module on infection risk factors
- New cold and flu module
- New sections on mumps, measles, and rubella
- Expanded discussion of other pathogens and new pathogens such as Powassan
- New Think About It end-of-chapter questions

Chapter 13: Violence and Unintentional Injuries

- New section on rape on U.S. campuses and government policies on violence
- New section on coping in the event of campus violence
- Added new statistics and information related to distracted driving, texting and driving, and other preventable issues, including the statistics on injuries and deaths among college-age adults
- New Think About It end-of-chapter questions

Chapter 14: Environmental Health

- New mindfulness module on environmental mindfulness
- Updated scientific evidence that climate change is real and why you should be concerned
- New section on fracking and potential threats to the environment
- New information on sustainable ways to use consumer electronics
- Expanded coverage related to green cities and campuses
- New Think About It end-of-chapter questions

Chapter 15: Consumerism and Complementary and Integrative Health Care Choices

- New mindfulness module on meditation and mind and body practices
- New table on common nonherbal supplements
- New figure on where our health care dollars are spent
- New Think About It end-of-chapter questions

Supplementary Materials

Available with *My Health: The Mindfulness Edition*, Third Edition, is a comprehensive set of ancillary materials designed to enhance learning and to facilitate teaching.

Instructor Supplements

- **Mastering™ Health.** Mastering Health coaches students through the toughest health topics. Instructors can assign engaging tools to help students visualize, practice, and understand crucial content from the basics of health to the fundamentals of behavior change. **Coaching Activities** guide students through key health concepts with interactive mini-lessons, complete with hints and wrong-answer feedback. **Reading Quizzes** (20 questions per chapter) ensure that students have completed the assigned reading before class. **ABC News Videos** stimulate classroom discussions and include multiple-choice questions with feedback for students. **NutriTools Coaching Activities** in the nutrition chapter allow students to combine and experiment with different food options and learn firsthand how to build healthier meals. **MP3s** relate to chapter content and come with multiple-choice questions that provide wrong-answer feedback.
- **NEW! Ready-to-Go Teaching Modules** in the Instructor Resources section help instructors efficiently make use of the available teaching tools for the toughest topics. Before-class assignments, in-class activities, and after-class assignments are provided for ease of use in efficient course setup. Instructors can incorporate active learning into their courses with the suggested activity ideas, clicker questions, or Learning Catalytics questions.
- **UPDATED Learning Catalytics™** is a student response tool that generates classroom discussion, guides your lecture, and promotes peer-to-peer learning with real-time analytics. Students use their smartphones, tablets, or laptops to engage them in more interactive tasks and thinking. Instructors, you can:
 - **NEW!** Upload a full PowerPoint® deck for easy creation of slide questions.
 - **NEW!** Name teams the way you want to—team names are no longer case sensitive.
 - Help your students develop critical-thinking skills.
 - Monitor responses to find out where your students are struggling.
 - Rely on real-time data to adjust your teaching strategy.
 - Automatically group students for discussion, teamwork, and peer-to-peer learning.
- **Digital Instructional Resources (Download Only).** The Digital Instructional Resources include everything instructors need to prepare for their course and deliver a dynamic lecture in one convenient place. Resources include *ABC News* videos, Video Tutor videos, clicker questions, Quiz Show questions, PowerPoint lecture outlines, all figures and tables from the text, PDF and Microsoft Word files of the *Instructor Resource and Support Manual* and the Test Bank, the Computerized Test Bank, the User's Quick Guide, *Teaching with Student Learning Outcomes*, *Teaching with Web 2.0*, *Behavior Change Log Book and Wellness Journal*, *Eat Right!*, *Live Right!*, and *Take Charge of Your Health* worksheets.
- **ABC News Videos and Video Tutors.** Fifty-one new *ABC News* videos, each 5 to 10 minutes long, and 22 brand-new brief videos assignable in Mastering Health help instructors

stimulate critical discussion in the classroom. Videos are provided already linked within PowerPoint lectures and are also available separately in large-screen format with optional closed captioning on the Teaching Toolkit DVD and through Mastering Health.

- **Instructor Resource and Support Manual (Download Only).** This teaching tool provides chapter summaries and outlines of each chapter. It includes information on available PowerPoint lectures, integrated *ABC News* video discussion questions, tips and strategies for managing large classrooms, ideas for in-class activities, and suggestions for integrating Mastering Health and MyDietAnalysis into your classroom activities and homework assignments.
- **Test Bank.** The Test Bank incorporates Bloom's Taxonomy of Educational Objectives to help instructors create exams that encourage students to think analytically and critically rather than simply to regurgitate information. Test Bank questions are tagged to global and book-specific student learning outcomes.
- **User's Quick Guide.** Newly redesigned to be even more useful, this valuable supplement acts as your road map to the Digital Instructional Resources.
- **Teaching with Student Learning Outcomes.** This publication contains essays from 11 instructors who are teaching using student learning outcomes. They share their goals in using outcomes and the processes that they follow to develop and refine them, and they provide many useful suggestions and examples for successfully incorporating outcomes into a personal health course.
- **Teaching with Web 2.0.** From Facebook to Twitter to blogs, students are using and interacting with Web 2.0 technologies. This handbook provides an introduction to these popular online tools and offers ideas for incorporating them into your personal health course. Written by personal health and health education instructors, each chapter examines the basics about each technology and ways to make it work for you and your students.
- **Behavior Change Log Book and Wellness Journal.** This assessment tool helps students track daily exercise and nutritional intake and create a long-term nutritional and fitness prescription plan. It also includes a Behavior Change Contract and topics for journal-based activities.

Student Supplements

- **The Study Area of Mastering Health** is organized by chapter, with study resources organized by learning areas: *Read It* houses the new Pearson eText 2.0, with which users can create notes, highlight text in different colors, create bookmarks, zoom, click hyperlinked words for definitions, and change page view. *See It* includes 51 *ABC News* videos on important health topics and the key concepts of each chapter. *Hear It* contains MP3 Study Tutor files and audio case studies. *Do It* contains critical-thinking questions and Web links. *Review It* contains study quizzes for each chapter. *Live It* helps jump start students' behavior-change projects with assessments and resources to plan change; students can fill out a Behavior

Change Contract, journal and log behaviors, and prepare a reflection piece.

- **NEW! Pearson eText:**
 - Now available on smartphones and tablets. Offline access is available through the Pearson App.
 - Seamlessly integrated videos, interactive self-assessments worksheets, and other rich media.
 - Accessible (screen-reader ready).
 - Configurable reading settings, including resizable type and night reading mode.
 - Instructor and student note-taking, highlighting, book-marking, and search.
- **Behavior Change Log Book and Wellness Journal.** This assessment tool helps students track daily exercise and nutritional intake and create a long-term nutrition and fitness prescription plan. It includes Behavior Change Contracts and topics for journal-based activities.
- **Eat Right! Healthy Eating in College and Beyond.** This booklet provides students with practical nutrition guidelines, shopper's guides, and recipes.
- **Live Right! Beating Stress in College and Beyond.** This booklet gives students useful tips for coping with stressful life challenges during college and for the rest of their lives.
- **Digital 5-Step Pedometer** Take strides to better health with this pedometer, which measures steps, distance (miles), activity time, and calories and provides a time clock.
- **MyDietAnalysis** (www.mydietanalysis.com). Powered by ESHA Research, Inc., MyDietAnalysis features a database of nearly 20,000 foods and multiple reports. It allows students to track their diet and activity using up to three profiles and to generate and submit reports electronically.

Flexible Options

My Health: The Mindfulness Edition, Third Edition, is also available in alternate print and electronic versions:

- **Mastering with eText:** students can purchase access to Mastering Health with eText in lieu of purchase a print text and have access to all of the assignments and study tools within Mastering Health, as well as their entire textbook in a mobile and accessible electronic format.
- **Books a la Carte** offers the exact same content as *My Health: The Mindfulness Edition* in a convenient, three-hole-punched, loose-leaf version. Books a la Carte offers a great value for your students—this format costs 35% less than a new textbook!
- **Vitalsource eTextbooks** are an alternative to purchasing the print textbook. Students can subscribe to the same content online and save 40% off the suggested list price of the print text. Access the Vitalsource eText at www.vitalsource.com.
- Creating a customized version of the book from the **Pearson Custom Library**, with only the chapters that you select, is also possible. Contact your Pearson sales representative for more details.

A Note on the Text

From my earliest years of college instruction, I have believed that in order to be motivated to focus on their health, students need to understand the complex health world that people live in, to appreciate how the macroenvironment and culture influence health decision making, and to recognize that there is no “best” recipe for health. Helping students access the best information available and motivating them to ask the right questions and be thoughtful in their analysis of issues, as well as *mindful in their approach to healthy change*, have been part of my overall approach to teaching, learning, and writing.

Today’s students have been raised on a steady dose of health information, some of which sounds good but may be highly questionable in terms of accuracy. Helping them sift through the

changing sands of health information, examine their own risks, and make positive changes that affect them, their loved ones, and others in the community is key to improving health. Writing a text such as this one has helped keep me current in my teaching and tuned in to the needs of twenty-first-century students and the instructors who teach classes such as this one. This text, focused on a more technology-based, interactive, and challenging approach to learning, cuts to the chase in delivering essential information and thought-provoking questions. Consistent with an ever-evolving and “information at your fingertips” approach, this format is designed to help students navigate the seemingly endless world of health and bring it to life in a colorful and fresh format. In keeping with the times, this text is a “work in continual progress,” and it will benefit greatly from your feedback and suggestions. As an author, I’d love to hear from you!

Acknowledgments

The process of writing and developing a textbook is truly a team effort. Each step along the way in planning, developing, and translating critical health information to students and instructors requires a tremendous amount of work from many dedicated professionals, including contributors who are at the top of their games in their knowledge of health science and behaviors and publishing professionals who personify all that is the absolute “best” in terms of qualities an author looks for in bringing a text to fruition. I cannot help but think how fortunate I have been to work with the gifted contributors to this text and the extraordinary publishing professionals at Pearson. Through time constraints, exhaustive searches for cutting-edge background research, and the writing process, these contributors were outstanding.

From painstaking efforts in development, design, editing, and editorial decision making to highly skilled marketing and dedicated sales efforts, the Pearson group handled every detail, every obstacle with patience, professionalism, and painstaking attention to detail. From this author’s perspective, these personnel personify key aspects of what it takes to be successful in the publishing world: (1) drive and motivation; (2) commitment to excellence; (3) fantastic job and performance skills; (4) a vibrant, youthful, forward-thinking and enthusiastic approach; and (5) personalities that motivate an author to continually strive to produce market-leading texts. I have been amazed at the way that this team continually works to be well ahead of the curve in terms of cutting-edge information. Asking “What do students need to know?” and “What will help instructors and students thrive in today’s high-pressure academic settings?” was at the heart of our efforts. I am deeply indebted to everyone who has played a role in making this book come alive for students and getting it into the hands of instructors.

In particular, credit goes to my development editor for this edition, Alice Fugate, who painstakingly merged and synthesized content and provided additional insight and expertise in making this new edition accessible to students. Alice did an extraordinary job of streamlining and revising material to fit within the constraints of the modular outline while retaining accuracy and readability. Without her, this book would not exist—thank you!

Further praise and thanks go to the highly skilled and hard-working executive editor Sandra Lindelof, who was responsible for the conceptualization of this text and helped to spearhead its initial development in the marketplace, doing the necessary work to procure the cutting-edge technology and skilled professionals that were key to its success. Her successor, Michelle Yglecias, quickly took charge of the list after Sandy’s departure and worked to ensure that this text provided the necessary framework to meet the needs of an increasingly demanding group of instructors and students.

Although these women were key contributors to the finished work, there were many other people who worked on *My Health:*

The Mindfulness Edition. Thanks go to Lizette Faraji, Michelle Gardner, and Heather Winter at SPi Global, who reliably kept us on track with flexibility and dedication. Design director Mark Ong and designer Tamara Newnam refreshed the visually impactful design while keeping students and instructors in mind. We could not have created this book without their creativity and dedication. Dinesh Deivendiran gets major kudos for overseeing the supplements package. Senior Rich Media Content Producer Timothy Hainley and Rich Media Content Producer Keri Rand put together an innovative and comprehensive set of assets for *My Health: The Mindfulness Edition*. Additional thanks go to the rest of the team at Pearson, especially Editorial Assistants Nicole Constantine and Crystal Trigueros, Managing Producer Nancy Tabor, and Director of Development Barbara Yien.

The editorial and production teams are critical to a book’s success, but I would be remiss without thanking another key group who ultimately help determine a book’s success: the textbook sales group and Senior Field Marketing Manager Mary Salzman and Product Marketing Manager Alysun Burns. With the support of Mary and Alysun, the Pearson sales representatives traverse the country, promoting the book, making sure that instructors know how it compares to the competition, and providing support to customers. From directing an outstanding marketing campaign to the everyday tasks of being responsive to instructor needs, Mary and Alysun do a superb job of making sure that *My Health* gets into instructors’ hands and that adopters receive the service they deserve. In keeping with my overall experiences with Pearson, the marketing and sales staff is among the best of the best. I am very lucky to have them working with me on this project and want to extend a special thanks to all of them!

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Reviewers

This book is the result of not only my efforts, but also the invaluable contributions of the many reviewers. From the initial idea to the fine-tuning of each and every learning outcome, the thoughtful comments from reviewers shaped this book in many ways. I am extremely grateful for your feedback.

I am forever grateful to all of those who contributed in large and small ways to the success of this text and all of my texts. It really does take a village to make things happen, and this village was extraordinary!

Rebecca J. Donatelle, PhD

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Healthy Change

- 1.1 What Is Health?
 - 1.2 Health in the United States
 - 1.3 What Influences Your Health?
 - 1.4 How Does Mindfulness Influence Health?
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 - 1.7 Improving Health Behaviors: Preparation
 - 1.8 Improving Health Behaviors: Action
 - 1.9 Achieving Health Equity: A Critical Issue in America
 - 1.10 What Can You Do to Promote Health Equity?
 - 1.11 Behavior Change Contract
- ASSESS YOURSELF: How Healthy Are You?** Find out in the Study Area at [Mastering Health](#).

Got health? That may sound like a simple question, but it isn't; health is a process, not something we just "get." People who are healthy in their forties, fifties, sixties, and beyond aren't just lucky or the beneficiaries of hardy genes. In most cases, those who are healthy and thriving in their later years have set the stage for good health by making it a priority in their early years. You've probably heard others say that your college years are some of the best years

of your life. Whether your story is filled with good health, happiness, great relationships, and fulfillment of your life goals is largely dependent on the health choices you make—beginning right now.

We aspire to be fit; we want to be more environmentally conscious; we search for relationships that are meaningful, loving, and lasting; and we want to live to a healthy, happy old age. How does what you do today influence you and those around you?

Learning Outcome

1.1 Discuss definitions of health used throughout history, and distinguish among the dimensions of health and wellness.

Over the centuries, several models have been put forth attempting to define what it means to be “healthy.” Earlier models focused primarily on hygiene and the absence of disease. Today’s models view health in a broader context that includes individuals and their macro environment. The choices we make affect our own health, but they can also affect others. For example, you might be a great specimen of physical health, but are a chronic “worrier” and suffer from debilitating stress that affects your academic performance and can result in problems in your interactions with others (Figure 1.1).

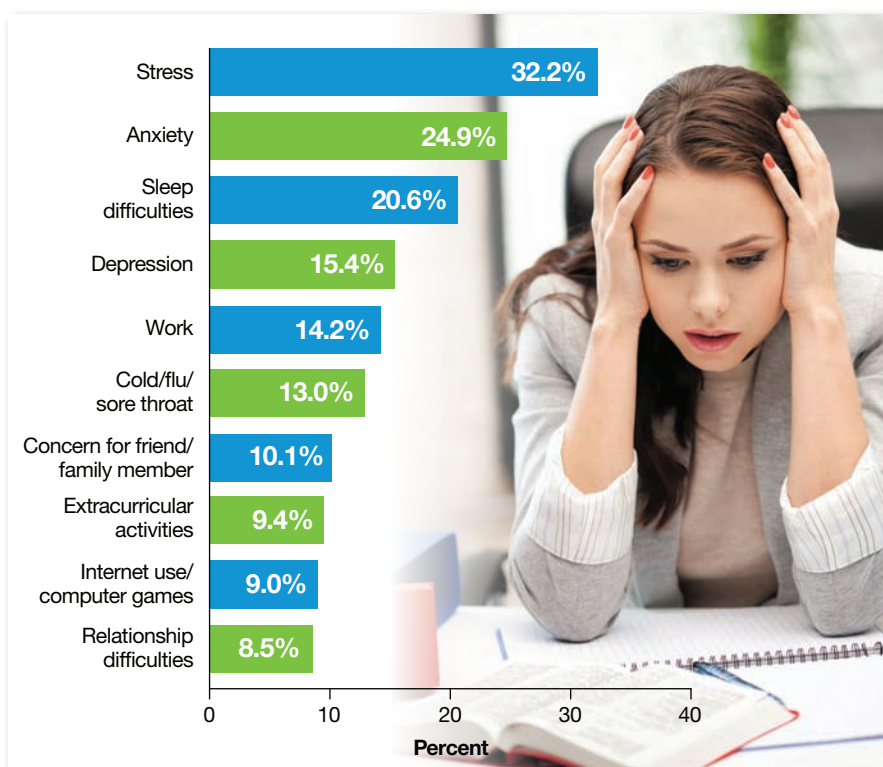


Figure 1.1 Top 10 Reported Impediments to Academic Performance—Past 12 Months

In a recent survey by the National College Health Association, students indicated that stress, poor sleep, recurrent minor illnesses, and anxiety, among other things, had prevented them from performing at their academic best.

Source: Data are from American College Health Association, *American College Health Association—National College Health Assessment II (ACHA-NCHA II) Reference Group Data Report, Fall 2016* Hanover, MD: American College Health Association, 2017. Available at www.acha-ncha.org.

Models of Health

Before the twentieth century, if you made it to your fiftieth birthday, you were regarded as lucky. Survivors were believed to be of healthy stock—having what we might refer to today as “good genes.” During this time, perceptions of health were dominated by the **medical model, in which health status focused primarily on the individual and his or her tissues and organs.** The surest way to improve health was to cure the individual’s disease, either with medication to treat the disease-causing agent or through surgery to remove the diseased body part. Government resources focused on initiatives that led to disease treatment rather than prevention.

In the early 1900s, researchers begin to recognize that entire populations of poor people, particularly those living in certain locations, were victims of environmental factors—such as polluted water, air, and food—over which they often had little control. Experts then began to realize that disease and health are related to more than just physical factors. A field of study examining interactions between the social and physical environment evolved, leading to a more comprehensive **ecological or public health model.**

Recognition of the public health model enabled health officials to control contaminants in water, for example, by building adequate sewers and to control burning and other forms of air pollution. Over time, public health officials began to recognize and address other forces affecting human health, including hazardous work conditions, negative influences in the home and social environment, stress, unsafe behavior, diet, and sedentary lifestyle.

By the 1940s, progressive thinkers began calling for policies, programs, and services to improve individual health and that of the population as a whole. Their focus shifted from treatment of individual illness to **disease prevention**, reducing or eliminating the factors that cause illness and injury. For example, childhood vaccination programs reduced the incidence and severity of infectious disease, and laws governing occupational safety reduced worker injuries and deaths. In 1947, at an international conference focusing on global health issues, the World Health Organization (WHO) proposed a new definition of health that rejected the old medical model: **“Health is the state of complete physical, mental, and social well-being, not just the absence of disease or infirmity.”¹**

Alongside prevention, the public health model emphasized **health promotion**—policies and programs promoting behaviors known to support

health. Such programs identify people engaging in **risk behaviors** (behaviors increasing susceptibility to negative health outcomes) and motivate them to change their actions by improving their knowledge, attitudes, and skills.

Wellness and the Dimensions of Health

In 1968, René Dubos proposed an even broader definition of health. In his book *So Human an Animal*, Dubos defined health as “a quality of life, involving social, emotional, mental, spiritual, and biological fitness on the part of the individual, which results from adaptations to the environment.”² This concept of adaptability became a key element in our overall understanding of health.


Eventually, the word **wellness** entered the popular vocabulary, further enlarging Dubos’s definition of health by recognizing levels—or gradations—of health within each category. Today, the words *health* and *wellness* are often used interchangeably to mean the dynamic, ever-changing process of trying to achieve one’s potential in each of the following six interrelated dimensions (Figure 1.2):

- **Physical health.** Physical health includes characteristics such as body size and shape, sensory acuity and responsiveness, susceptibility to disease and disorders, body functioning, physical



Figure 1.2 The Dimensions of Health

When all dimensions of health are in balance and well developed, they can support your active and thriving lifestyle.

 Mastering Health & Nutrition Dimensions of Health

fitness, and recuperative abilities. Newer definitions of physical health include our ability to perform normal *activities of daily living (ADLs)*, or those tasks necessary to normal existence in society, such as getting up from a chair, bending to tie your shoes, or writing a check.

- **Social health.** The ability to have satisfying interpersonal relationships with friends, family members, and partners is a key part of overall wellness. This implies being able to give and receive love, to be nurturing and supportive in social interactions, and to interact and communicate with others.
- **Intellectual health.** The ability to think clearly, reason objectively, analyze critically, and use brainpower effectively to meet life’s challenges are all part of this dimension. This includes learning from successes and mistakes; making sound, responsible decisions that consider all aspects of a situation; and having a healthy curiosity about life and an interest in learning new things.
- **Emotional health.** This is the feeling component—being able to express emotions when appropriate, and to control them when not. Self-esteem, self-confidence, self-efficacy, trust, and love are all part of emotional health.
- **Spiritual health.** This dimension involves having a sense of meaning and purpose in your life. This may include believing in a supreme being or following a particular religion’s rules and customs. It may also include the ability to understand and express one’s purpose in life; to feel part of a greater spectrum of existence; to experience peace, contentment, and wonder over life’s experiences; and to care about and respect all living things.
- **Environmental health.** This dimension entails understanding how the health of the environments in which you live, work, and play can affect you; protecting yourself from hazards in your own environment; and working to protect and improve environmental conditions for everyone.

Achieving wellness means attaining the optimal level of well-being for your unique limitations and strengths. For example, a physically disabled person may function at his or her optimal level of performance; enjoy satisfying interpersonal relationships; work to maintain emotional, spiritual, and intellectual health; and have a strong interest in environmental concerns. In contrast, someone who spends hours lifting weights to perfect each muscle but pays little attention to social or emotional health may look healthy but may not maintain a balance in all dimensions. The perspective on wellness we need is *holistic*, emphasizing balanced integration of mind, body, and spirit.

Check Yourself

- How have definitions of health changed over time?
- What are the dimensions of health? Explain the differences among them.
- When you think of someone as being “healthy,” what comes to mind? Are your criteria consistent with modern definitions?

1.2

Health in the United States

Learning Outcome

1.2 Specify major present-day health issues affecting the United States population, and explain the overall goals of *Healthy People 2020*.

Our health choices are not only personal; they affect the lives of others in many ways. For example, overeating and inadequate physical activity contribute to individual obesity, but obesity also burdens the U.S. health care system and economy. Obesity also costs the public indirectly, for example, by increased disability payments and health insurance rates. Similarly, smoking, excessive consumption of alcohol, and use of illegal drugs place an economic burden on our communities and our society as a whole—not to mention social and emotional burdens on families and caregivers.

How Healthy Are We?

According to current **mortality** statistics—which reflect the proportion of deaths within a population—**average life expectancy at birth in the United States is projected to be 78.8 years for a child born in 2015.**³ In other words, American infants born today will live to an average age of over 78 years, much longer than the 47-year life expectancy for people born in the early 1900s.

In the last century, with the development of vaccines, antibiotics, and other public health successes, as well as advances in medications, diagnostic technologies, surgery, and cancer treatments, life expectancy increased dramatically. **The leading cause of death shifted to chronic diseases, such as heart disease, cerebrovascular disease (which leads to strokes), cancer, and diabetes.**

Unfortunately, life expectancy in the United States is several years below that of many other nations. **Factors contributing to premature mortality and thus limiting U.S. life expectancy include obesity, tobacco and alcohol abuse, and drug overdose, which is now the leading cause of accidental death.**⁴ Our highly fragmented system of health care, lower quality of care for chronic disease, social inequality, and poverty are also part of the complex, multifactorial influences on our lower life expectancy.⁵

Lifestyle factors are strongly linked to four leading causes of death in the United States: heart disease, cancer, chronic respiratory disease, and stroke (Table 1.1).⁶ In fact, the four leading causes of these chronic diseases are all under our individual control (Figure 1.3).

Clearly, healthful choices increase life expectancy. But they also increase **healthy life expectancy**—the years of full health a person enjoys without disability, chronic pain, or significant illness. For example, if we could delay the onset of diabetes until age 60 rather than 30, there would be a 30-year increase in that individual's healthy life expectancy. The prevalence of health issues affecting the U.S. population highlights the need to focus on healthy life expectancy as a cornerstone of public health.

See It! Videos

Are people who volunteer or give to charity healthier? Watch **Helping Others Could Be Good for Your Health** in the Study Area of Mastering Health.

Healthy People 2020: Setting Health Objectives

The Surgeon General's health promotion plan, *Healthy People*, has been published every 10 years since 1990 with the goal of improving quality of life and years of life for all Americans. Each plan consists of a series of long-term objectives for the decade to come. **The overarching goals set out by the newest version, *Healthy People 2020*, are to (1) attain high-quality, longer lives free of preventable diseases; (2) achieve health equity, eliminate disparities, and improve health of all groups; (3) create social and physical environments that promote good health for all; and (4) promote quality of life, healthy development, and healthy behaviors across all life stages.**⁷ In recognition of the changing demographics of the U.S. population and vast differences in health status based on racial or ethnic background, *Healthy People 2020* included strong language about the importance of reducing disparities.

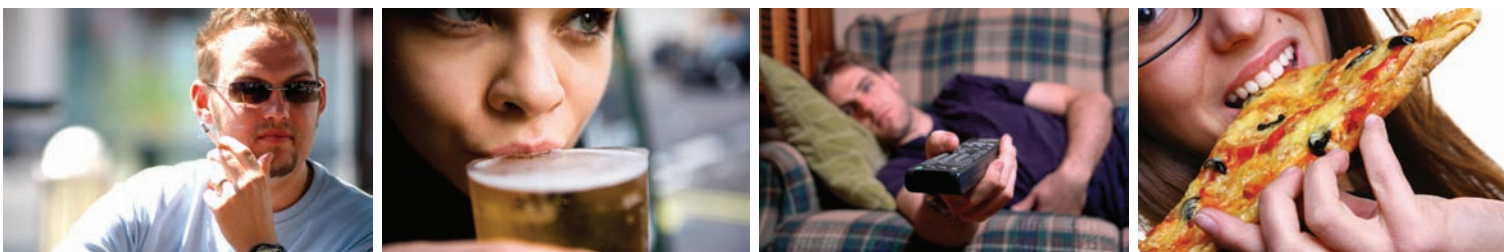


Figure 1.3 Four Leading Causes of Chronic Disease in the United States.

Tobacco use, excessive alcohol consumption, lack of physical activity, and poor nutrition—all modifiable health determinants—are the four most significant factors leading to chronic disease among Americans today.

TABLE

1.1

Leading Causes of Death in the United States, 2014, Overall and by Age Group (15 and older)

All Ages	Number of Deaths
Diseases of the heart	614,348
Malignant neoplasms (cancer)	591,700
Chronic lower respiratory diseases	147,101
Accidents (unintentional injuries)	135,928
Cerebrovascular diseases (stroke)	133,103
Aged 15–24	
Accidents (unintentional injuries)	11,797
Suicide	5,090
Assault (homicide)	4,171
Malignant neoplasms (cancer)	1,569
Diseases of the heart	953
Aged 25–44	
Accidents (unintentional injuries)	33,366
Malignant neoplasms (cancer)	14,891
Diseases of the heart	13,709
Suicide	13,289
Assault (homicide)	6,769

Source: Data from M. Heron, "Deaths: Leading Causes for 2014, Table 1," *National Vital Statistics Reports* 65, no. 5 (June 2016), www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_05.pdf.

At the root of *Healthy People 2020* are "foundation health measures" designed to indicate progress toward reaching these four goals:

- Measures of *general health status*, including life expectancy, healthy life expectancy, and chronic disease prevalence
- Measures of *health-related quality of life and well-being*, including physical, mental, and social factors and participation in common activities
- *Determinants of health*, which are the personal, social, economic, and environmental factors that influence health status
- Measures of *disparities* and inequity, including differences in health status based on race/ethnicity, gender, physical and mental ability, and geography

Healthy People 2020's comprehensive, comprehensive approach includes 42 topic areas, each representing a public health priority, such as diabetes, physical activity, or substance abuse.⁸ Under each area is an overview describing health issues within its scope, objectives for the nation to achieve during the decade to come, and resources for communities and individuals. For instance, objectives for the nutrition topic include "Increase the proportion of schools that offer nutritious foods and beverages outside of school meals" and "Increase the proportion of physician office visits that include counseling or education related to



How are *health* and *quality of life* related?

Just because a person has a disability doesn't mean his or her quality of life is necessarily low. Surfer Bethany Hamilton lost her arm in a shark attack while surfing at age 13, but she returned to surfing just 1 month after the attack and has since traveled around the world competing professionally.

nutrition or weight." For each objective, the report lists baseline statistics and a target goal for the year 2020.

Within the 42 topic areas, a smaller set of topics, called *leading health indicators*, indicate high-priority health issues and actions. Topics include access to health services and reproductive and sexual health, among others.⁹

Perhaps the most revealing aspects of the report are the 13 topic areas newly added for this decade, which reflect concern over health disparities, the relationship of lifestyle and wellness, and issues affecting the young and the very old.¹⁰ These include adolescent health; global health; lesbian, gay, bisexual, and transgender health; older adults' health; sleep health; and health-related quality of life and well-being. Health is a comprehensive system encompassing the individual and the society, with influences both intensely personal and broadly global in scope.

Healthy People 2030 goals are currently being developed. To check out how decisions are made about what goes into the document and how they are finalized, go to: <https://www.healthy-people.gov>.

Check Yourself

- What are four key health issues in the United States?
- How are national health objectives used to improve health among Americans?

1.2

Healthy Change

1.3

What Influences Your Health?

Learning Outcome

- 1.3** Describe the major factors affecting an individual's ability to attain optimal health, and explain the connection between lifestyle and health outcomes.

If you're lucky, aspects of your world promote health: Your family is active and fit; there are fresh apples on sale at the neighborhood farmers market; and a new walking trail opens along the river. If you're not so lucky, aspects of your world discourage health: Your family eats a high-fat diet; cigarettes, alcohol, and junk food dominate the corner market; and you wouldn't dare walk along the river for fear of being mugged. This variety of influences explains why seemingly personal choices aren't totally within an individual's control.

Public health experts refer to the factors that influence health as **determinants of health**, a term the U.S. Surgeon General defines as "the range of personal, social, economic, and environmental factors that influence health status" (Figure 1.4).¹¹

Biology and Genetics

In the domain of health determinants, *biology* refers to an individual's genetics, ethnicity, age, and gender. Biological determinants—what health experts refer to as *nonmodifiable determinants*—are things you can't change or modify. Your sex is a key biological determinant: **Compared to men, women have an increased risk for low bone density and autoimmune diseases (in which the body attacks its own cells), whereas men have an increased risk for heart disease compared to women.** Biology also includes family history; for example, if your parents developed diabetes in their forties, that's a biological determinant for you. Your history of illness and injury factors in, too; a serious injury might influence your ability to participate in physical activity, which in turn may predispose you to weight gain.

Individual Behavior

In contrast to biological factors, *behaviors* are responses to internal and external conditions. By definition, behaviors are changeable; health experts refer to them as *modifiable determinants*. They significantly influence your risk for chronic disease, which is responsible for 7 out of 10 deaths in the United States.¹² **Just four modifiable determinants are responsible for most illness and early death related to chronic diseases.**¹³

- **Lack of physical activity.** Low levels of physical activity contribute to over 200,000 deaths in the United States annually.¹⁴

The effects of family on health can be both biological and environmental. Genetics determine some of your health status, but the actions and values of your family also have a strong influence on health.

- **Poor nutrition.** Diets low in fruits and vegetables have been linked in multiple studies with an increased risk of death by any cause.¹⁵
- **Excessive alcohol consumption.** Alcohol causes 88,000 deaths in adults annually, through cardiovascular disease, liver disease, cancer, and other conditions, as well as traffic accidents and violence.¹⁶
- **Tobacco use.** Tobacco smoking and the cancer, high blood pressure, and respiratory disease it causes are responsible for about 1 in 5 deaths in American adults.¹⁷

Another major contributor to disease and mortality among Americans is our rising abuse of prescription and illegal drugs, especially opioid pain relievers and heroin. Between 1999 and 2015, the number of overdose deaths involving these drugs quadrupled. Every day, 91 Americans die from an opioid overdose.¹⁸

Social Factors

Social determinants of health refer to the social factors and physical conditions in the environment in which people are born or live. Your social environment includes your exposure to crime, mass media, technology, and poverty, as well as availability of healthful foods, transportation, living wages, social support, and educational or job opportunities.

Among the most powerful determinants of health in the social environment are economic factors; even in affluent nations such as the United States, people in lower socioeconomic brackets have substantially shorter life expectancies and more illnesses than do people who are wealthy.¹⁹ Economic disadvantages exert their effects on health in areas such as access to high-quality education, safe housing, nourishing food, warm clothes, medication, and transportation.



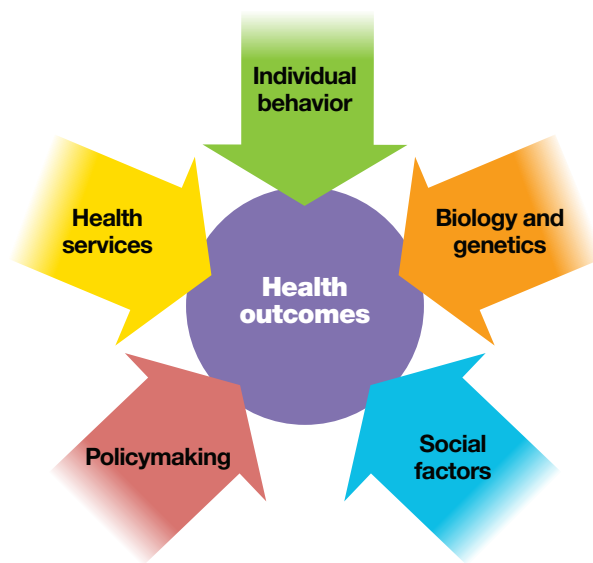


Figure 1.4 Healthy People 2020 Determinants of Health
The determinants of health often overlap one another. Collectively, they impact the health of individuals and communities.

The physical environment is anything—from skyscrapers to snowfall—that you can perceive with your senses. It also includes less tangible things such as radiation and air pollution. Individuals and communities exposed to toxins, radiation, irritants, and infectious agents can suffer significant harm. And the effects go beyond the local; the pollutants one region produces, or the diseases it harbors, can affect people worldwide. Examples include the burning of the South American rainforest, which is contributing to global warming, and the swift transmission of strains of severe influenza across populations.

The built environment includes anything created or modified by human beings, from buildings to transportation to electrical lines. Changes to the built environment can improve the health of community members.²⁰ These include increased construction of parks, sidewalks, pedestrian-only areas, bike paths, public transit systems to which commuters typically walk or bike, and improved safety strategies, with better lighting and increased security. Some communities are enticing supermarkets to open in inner-city neighborhoods to increase residents' access to fresh fruits and vegetables.

Health Services

The health of individuals and communities is also determined by access to quality health care, not only provider services but also accurate information and products such as eyeglasses, medical supplies, and medications.

Policymaking

Public policies and interventions can have a powerful effect on the health of individuals and communities. Examples include campaigns to prevent smoking, laws mandating seatbelt use,

vaccination programs, and public funding for mental health services.

Policymaking also includes health insurance legislation. Although the Affordable Care Act had reduced the numbers of uninsured Americans by 20 million people by the end of 2016, millions remained without insurance, and the current status of health insurance coverage in the United States is uncertain.²¹

Health Disparities

Among the factors that can influence an individual's ability to attain optimal health are **health disparities**. **Health disparities can arise from a variety of factors**, including the following:

- **Race and ethnicity.** Research indicates dramatic health disparities across racial and ethnic backgrounds. Socioeconomic differences, stigma based on “minority status,” poor access to care, cultural barriers and beliefs, discrimination, and limited education and employment opportunities can all affect health.
- **Inadequate health insurance.** A large and growing number of the *uninsured* or *underinsured* face unaffordable payments or co-payments, high deductibles, or limited care in their area.
- **Sex and gender.** At all stages of life, men and women experience differences in rates of disease and disability. For instance, men smoke more than do women, but women who smoke have higher rates of lung disease. In contrast, men have much higher rates of drug-induced deaths and deaths from suicide and homicide. Overall, men have a lower healthy life expectancy than females.
- **Economics and education.** Poverty may make it difficult to afford healthy food, preventive medical visits, or medication. Economics also influences access to safe, affordable exercise. Moreover, poor Americans with a low level of education experience increased rates of illness, premature death, and risk-taking behaviors such as smoking and binge drinking.
- **Geographic location.** Whether you live in an urban or a rural area and have access to public transportation or your own vehicle can have a huge impact on what you eat, your physical activity, and your ability to visit the doctor or dentist.
- **Sexual orientation.** Gay, lesbian, bisexual, or transgender individuals may lack social support, are often denied health benefits because of their unrecognized marital status, and face unusually high stress levels and stigmatization by other groups.
- **Disability.** Disproportionate numbers of disabled individuals lack access to health care services, social support, and community resources.

Check Yourself

- **What are the determinants that affect health identified in this section?**
- **Give three examples of the connection between lifestyle and health outcomes.**

1.4

How Does Mindfulness Influence Health?

Learning Outcome

1.4 Describe mindfulness, identifying its health benefits and ways to incorporate it into your life.

Recently, many media outlets have been promoting a shift to *mindful* behavior as a path to optimum health. If you've seen these claims, you may be wondering if they're backed by evidence, and if so, how to practice mindfulness in your own life. In this section, we introduce the concept of mindfulness, the research that supports it effectiveness, and some simple strategies for living more mindfully. In later chapters of this text, we'll provide further research, resources, and tips for you to include mindfulness as part of a comprehensive plan for living your best, most healthful life!

Definitions of Mindfulness

Definitions of **mindfulness** include being present “in the moment” through greater awareness of yourself—including your sensations, thoughts, and feelings—and your environment. Some people have called mindfulness an extended “stop and smell the roses” moment that becomes a total approach to your daily life. Other people describe it as a way of looking at yourself and the world without judging or trying to “fix,” but instead with gentleness and compassion. One of the keys to mindfulness is focusing—bringing your complete attention to the present rather than re-hashing the past or dwelling on future fears. In fact, one of the clearest definitions found in the popular media is: “Keeping your feet in the now!”

Mindfulness is believed to have originated around 1500 BCE or earlier as an element of the Hindu practices of yoga and meditation. Buddhism, which evolved from Hinduism around 600 BCE, incorporated mindfulness as one of its core practices. Today, mindfulness is no longer solely affiliated with Eastern religions, and those who practice it may follow other religions or no religion at all.

Health Benefits of Mindfulness

A growing body of research evidence links mindfulness to improved health. Studies associate it with pain relief, as well as stress reduction, lower levels of anxiety and depression, improved sleep, improved memory and attention, weight loss, reduced risks for CVD, and improvements in relationships. Although research in these areas is in its early stages, examples of some of the areas where positive results have been shown include:

Stress Level and Psychological/Mental Health Improvements: Theories of mindfulness and a growing amount of research support the idea that in the presences of negative emotions or threat, mindfulness activities can help with self-regulation and control



Yoga comes in many variations, but all yoga practices incorporate a focus on the here and now through breathing, attention, and gratitude.

of negative reactions and can help you stay centered and more focused. According to recent research, the more frequently you practice mindfulness meditation and overall mindfulness strategies, the greater the likelihood of a stress control and anxiety reduction, to name two of the most promising areas of benefit.²²

Benefits of Specific Activities Such as Yoga: A recent “study of studies” (meta-analysis) focused on the benefits of yoga indicates that yoga and overall mindfulness meditation can improve mental and physical health.²³

Possible Help with Addictions: Results of a small Oregon pilot study indicated promising results with individuals in a methadone treatment program who engaged in a mindfulness-based relapse prevention program (MBPP). Those in the MBPP program showed statistically significant improvements in depression levels, cravings, and trauma symptoms at the end of treatment compared to those in a methadone treatment program only.²⁴

Relief of Low Back Pain: A recent study by RAND Corporation, Kaiser Permanente, Washington Health Research Institute, and the University of Washington randomly assigned 342 adults with chronic back pain to an 8-week, 2-hour weekly session of either mindfulness-based stress reduction (MBSR), cognitive-behavioral therapy (CBT), or usual therapy or care. Published in the journal

Spine, results indicated that MBSR, in particular, may offer significant pain relief and cost benefits over usual care.²⁵

Aids in Sleep Quality: A large meta-analysis of studies examining the role of cognitive-behavioral sleep interventions—including mindfulness—appear to show that sleep quality, daytime sleepiness, depression, and anxiety improve and are maintained with these strategies. More large scale randomized controlled trials are recommended to examine this association.²⁶

How to Practice Mindfulness

Although there are many ways to incorporate mindfulness into your daily life, here are a few steps you can take to tune in to life around you and gain a greater appreciation for yourself and your place in the world. This is just a brief introduction. Other chapters of this book will provide specific skills for helping you develop mindfulness.

You can practice mindfulness at any time, in any place. According to mindfulness guru Jon Kabat-Zinn, it requires only a willingness to examine who you are, your view of the world, and your place in it, and to appreciate each moment.²⁷ The path to mindfulness differs for each of us, however. It might include formal actions, such as carving out times to meditate or practice yoga. Alternatively, it might comprise informal actions, such as increasing your attention to your relationships, food choices, or the environment. It might also include working to build your compassion for others or pausing to acknowledge the things in your life that you're thankful for. The following are some basic mindfulness skills.

Cultivate Compassion The word *compassion*, derived from the Latin phrase “to suffer together,” is a recognition of another’s pain and a sincere desire to help. You cultivate compassion for others by supporting loved ones going through difficult times, or by volunteering to help others who are less fortunate. You cultivate compassion for yourself by learning to recognize critical thoughts that say you’re not good enough and setting them aside. You may then remind yourself of your positive qualities, achievements, and loving relationships. Practicing yoga can help you drop your internal critic and develop self-confidence. You might also take a vow to avoid engaging in negative thinking about yourself and others for a single day.

Some simple ways to practice compassion include meeting others’ eyes as you pass, acknowledging that you’re aware of their presence. Smile. When friends criticize others, try to listen fully to what’s behind the words, and respond with gentleness and honesty.

Start Each Day with Intention How do your values guide your actions? What might you wish to do differently today? What will success look like? Each morning, jot down some intentions—perhaps to listen more, to stop procrastinating, or to think before you act. During the day, try to stay mindful of how your actions align with these intentions. Then, before bed each night, take a moment to consider—without judgment—how well you lived your intentions that day.



How can I incorporate mindfulness into my hectic life?

You can practice mindfulness at almost any time of the day. Try focusing on the present by paying attention to the sights, smells, and sounds you encounter during your daily walk through campus or your community.

Examine the Way You Deal with Life’s Challenges Perhaps you became angry with a friend or got stressed out by homework. One method for confronting challenges with mindfulness is to acknowledge what you felt, then try to determine why. Was the event really as negative as you felt it to be at the time? Could you have responded differently? In future, would you prefer to let go of your attachment to particular outcomes, say “It is what it is,” and move on? One way to do this is to acknowledge that nothing in life—and no one—is perfect, including you. For yourself and for others, seek goodness rather than perfection.

Check Yourself

- What is mindfulness? Summarize health benefits that are associated with it.
- How might mindfulness, with its emphasis on the present, help overcome feelings of anxiety about the future or depression about the past?
- Describe several ways in which you could add mindfulness into your daily life.