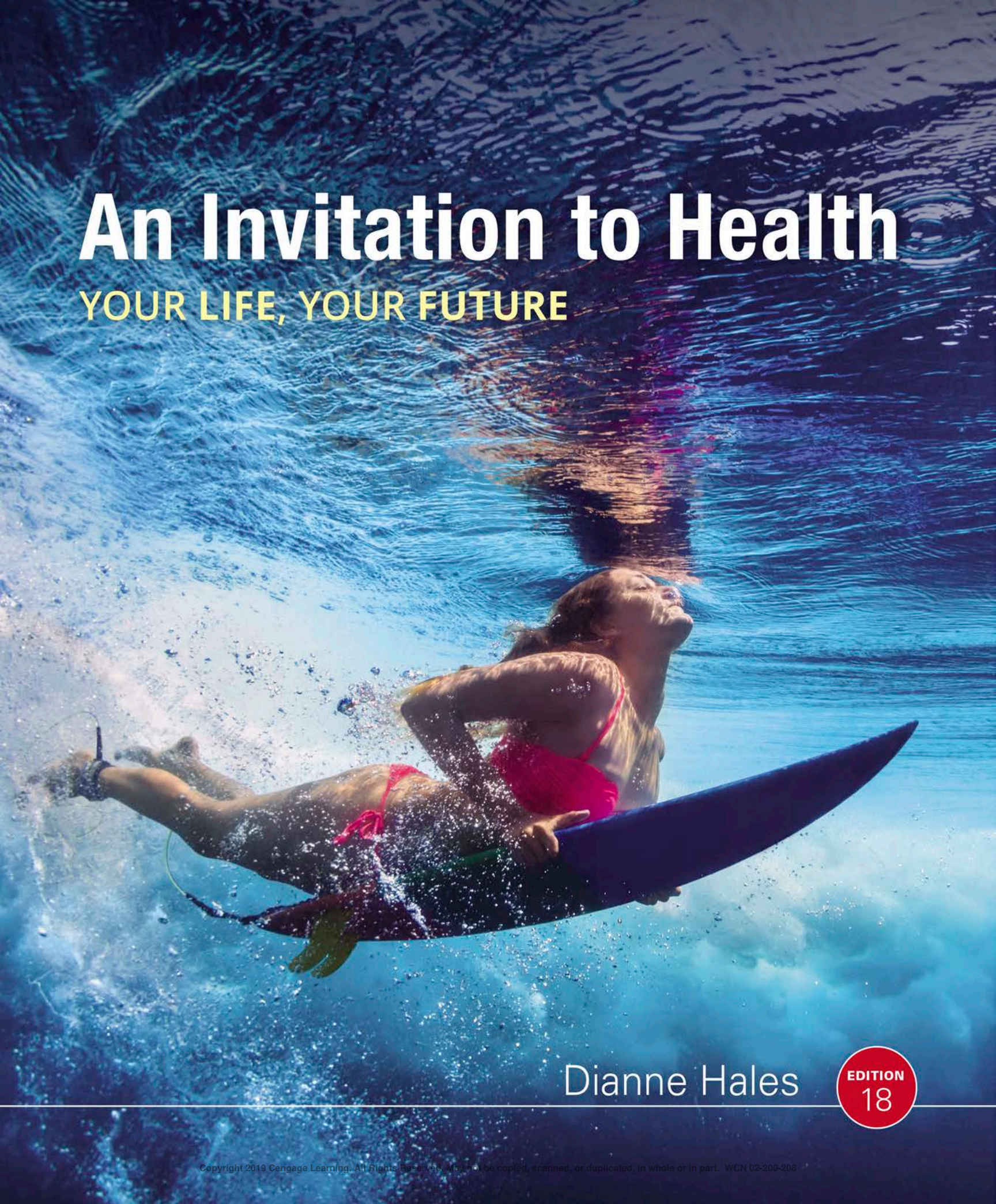


An Invitation to Health

YOUR LIFE, YOUR FUTURE



Dianne Hales

EDITION
18



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An Invitation to Health

Your Life, Your Future

Dianne Hales

18th Edition



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Preface

Any college course may expand knowledge, broaden perspective, and deepen understanding in some way. Personal health and wellness courses do more: They can change a life and shape a future.

Other classes cover subjects that range from anthropology to mathematics to zoology. But health and wellness are not topics that instructors simply “teach” and undergraduates merely “study.” They are essential parts of living every day to the fullest and creating the foundation for a fulfilling future. This is why we chose “Your Life, Your Future” as the theme for this edition of *Invitation to Health*.

Every chapter not only presents the latest medical research and health statistics, but goes beyond these facts to provide step-by-step guidance on how students can incorporate what they are learning into how they are living. The lessons learned in health and wellness classes, as research has confirmed, can influence choices and habits that have a lifelong impact.

Today’s students are more diverse than ever before. A growing percentage are older than the traditional ages of undergraduates. Many have a wide range of life experiences, including full-time employment and military service. Although the specific circumstances of their day-to-day lives may vary greatly, students in health and wellness courses share a commitment to realizing their potential and becoming their best, healthiest selves.

If you are a student, this textbook is our invitation to live what you learn and to make the most of your health—now and in the future. By using *An Invitation to Health: Your Life, Your Future* as an owner’s manual for your body and mind, you can acquire a special type of power—the power to make good decisions, to assume responsibility, and to create and follow a healthy lifestyle. If you are an instructor, I look forward to working with you as you explore the dimensions of health and how they relate to your students’ daily lives. I welcome feedback from any and all of you at www.cengage.com/health.

Stay well,

Dianne Hales

What’s New in *An Invitation to Health: Your Life, Your Future*

As in previous editions, this *Invitation* presents up-to-date, concise, research-based coverage of all the dimensions of health. It also continues to define health in the broadest sense of the word—not as an entity in itself, but as an integrated process for discovering, using, and protecting all possible resources within the individual, family, community, and environment.

Every chapter begins by engaging students with a “What do you think?” feature, with four questions that stimulate students to evaluate what they already know—or think they know—about a subject. We ask the same questions under the heading of “What did you decide?” at the end of each chapter to see whether and how the material they’ve studied may have changed students’ perspective.

Every chapter includes updated statistics, research findings, and guidelines on topics such as nutrition, physical activity, and immunizations. An interactive feature, “Snapshot: On Campus Now,” showcases the latest research on student behavior, including sleep habits, stress levels, and safe sex practices. “Health Now!” presents

practical, ready-to-use tips related to real-life issues such as making healthier fast-food choices, protecting yourself from infection, and recognizing substance abuse. “Consumer Alert” explores subjects such as dubious diets, fitness monitors, and e-cigarettes.

Each of the 20 chapters, reordered in response to reviewers’ suggestions, concludes with “Your Life, Your Future,” a checklist that students can use to assess their current status and work toward specific goals, whether by getting in better shape, taking charge of their alcohol intake, or caring for Mother Earth.

Because health is an ever-evolving field, this edition includes many new, expanded, and updated topics, as detailed in the following chapter-by-chapter summaries:

Chapter 1

Healthy habits of college students; latest statistics on life expectancy and death rates; trends in racial-ethnic health disparities; health and health behaviors 1 year after high school graduation and through college; weight and fitness changes in college; motivating and maintaining physical activity by undergraduates.

Chapter 2

Self-compassion; new research on happiness and health; optimism and hope in chronic disease; religiosity and mental health of college students; gratitude interventions; students’ sleep patterns and problems; sleep’s impact on health.

Chapter 3

Depression, anxiety, and stress on campus; students’ view of benefits and drawbacks of seeking mental health care; positive mental imaging for depression; mindfulness for college students; ADHD and GPAs; nonmedical use of prescription stimulants; onset of suicidal thoughts in college.

Chapter 4

Social support and women’s stress response; new Stress in America survey, student’s fear of public speaking; perceived stress in students; stress responses in military veteran and civilian students; mindfulness for stress reduction in students; yoga and cognitive performance; perceived stress and self-efficacy in young people.

Chapter 5

USDA Dietary Guidelines for Americans; protein’s impact on fullness, metabolism, aging, lean muscle, and diabetes risk; added sugar intake and cardiovascular disease; whole grains, fiber, and all-cause mortality; fish oil supplements; folic acid; effects of dietary sodium on health; benefits of the Mediterranean diet; vegetarian diets and weight reduction; students’ food skills and knowledge of dietary guidelines; sugar-sweetened beverage consumption; energy drinks; nutrition label reading skills.

Chapter 6

Childhood obesity; overweight and obesity statistics; body weight and academic performance in college; physical activity and weight in college women; BMI, body fat, and mortality; physical activity, sedentary behavior, and health; perceived racial discrimination and obesity; hypertension and obesity; diabetes and obesity; suicide risk and obesity; vaping to lose weight; diet and exercise for weight loss; long-term success of gastric bypass; pros and cons of bariatric surgery in adolescents; binge-eating disorder rates; mindfulness and risk of eating disorders; psychotherapy for bulimia nervosa.

Chapter 7

Physical activity and college students; exercise for prevention of diabetes; physical activity and happiness; exercise for substance use; health benefits for weekend warriors; electronic activity monitors; high-intensity interval training; running's benefits for knees.

Chapter 8

Friendships and loneliness; gender role and social anxiety; cognitive behavior therapy for social anxiety disorder; mindfulness-based stress reduction for young adults with social anxiety disorder; social media use and anxiety in emerging adults; using social media to monitor stress; problematic smartphone use; Internet addiction and gaming disorder; hookups on campus; marriage and health for same- and different-sex couples; blended families.

Chapter 9

Routine pelvic exams; reproductive lifespan and longevity in women; physical activity and PMS, transgender health care; meaning of “having sex”; statistics on sex in America; longitudinal research on other-sex partners; milestones in sexual orientation; oral versus vaginal sex among college students; men's sexual functioning and health status; sexual dysfunction in female college students.

Chapter 10

Challenges in contraception; update on oral contraceptives; long-acting hormonal contraceptives; safety of IUDs in young women; injectable contraceptives; emergency contraception; smoking during pregnancy; Zika virus and pregnancy; STIs and infertility; male infertility.

Chapter 11

New recommendations from the U.S. Preventive Services Task Force; prospects for new vaccines against STIs; sexual transmission of Zika virus; reducing risky sexual behavior among college students; substance use and STI acquisition; campus-wide condom distribution; correlation between pubic hair grooming and STIs; HPV-associated cancers; impact of HPV vaccines; interventions for a first episode of genital herpes; gonorrhea control; HIV testing among young adults; HIV preexposure; progress in HIV treatment and vaccine development.

Chapter 12

Updated statistics on heart disease and stroke; genetics, lifestyle, and coronary disease; trends in metabolic syndrome; dietary interventions and cardiometabolic risk; socioeconomic level and cardiometabolic risk factors; prediabetes; screening for type 2 diabetes; physical activity/exercise and diabetes; blood pressure and African Americans; blood pressure and stroke prevention; optimal salt intake; blood pressure control in hypertension; fitness, BMI, and the risk of hypertension; young adults with acute myocardial infarction; stroke in young adults; updated cancer statistics; new federal report on carcinogens; indoor tanning and melanoma; prophylactic mastectomy and long-term survival; prevention and screening for colon cancer; prostate cancer treatments; epilepsy research.

Chapter 13

Infectious disease mortality trends; new pathogens; vaccination and fear of autism; CAM treatments for colds and flu; viral load and influenza symptoms; meningitis vaccines; hepatitis C management; updates on Zika virus spread, risks, and prevention; evolution of Ebola virus and vaccine.

Chapter 14

Update on health insurance; impact of Affordable Care Act; health-related consumer behaviors; evidence-based medicine; mobile health technologies; wearable fitness and health devices; laser surgery;

complications with lip and tongue piercings; CAM for colds and flu; use of CAM in the United States and on campus.

Chapter 15

Updated statistics on drug use in United States and on campus; U.S. surgeon general's new report on addiction in America; polysubstance abuse; video gaming disorder; addiction and indoor tanning; food addiction; Internet addiction; texting dependence; alcohol consumption in problem gamblers; gender and addiction; prescription stimulants and opioids; transition from prescription opioids to heroin; medical and legalized marijuana; benefits of 12-Step programs.

Chapter 16

Updated statistics on alcohol in the United States and on campus; happiness and drinking; impact of adolescent drinking or abstinence; high-risk partying behavior; impact of social norms; influence of residence status and ethnicity; solitary predrinking; AMED use; digital interventions to reduce heavy drinking; alcohol's impact on heart; alcohol-related harm in men and women; prenatal alcohol use and FASD; pharmacotherapy of alcoholism.

Chapter 17

Updated statistics on smoking in the United States and on campus; impact of childhood tobacco and alcohol use; co-use of tobacco and drugs; depression and tobacco use in college students; flavored and sweet tobacco products; gateway nicotine products; e-cigarette risks; hookah use statistics; risk factors for hookah use; quitting hookah use; effects of hookahs on indoor air pollution; large cigars; use of snus; reducing harm from continued tobacco use; e-cigarettes for smoking cessation; thirdhand smoke exposure.

Chapter 18

Update on mortality statistics; risky driving among young men; impaired driving in young women; understanding and treating violence; campus safety initiatives; microaggressions; online victimization; sexting; sexual violence; changing campus culture and sexual violence on campus; bystander intervention to prevent sexual assaults; social drinking and incapacitated sexual assault; rape myths on campus; rape-prone cultures on campus; trauma in student sexual assault survivors; violence prevention programs.

Chapter 19

Student development of pro-environmental views; climate change; health impact of air pollution; health disparities and environmental air quality; traffic-related air pollution; lead poisoning in water; electromagnetic radiation and health; mobile phone use and health risks; impact of transportation noise; earphone use and hearing; daily music exposure and hearing problems.

Chapter 20

Causes of death and mortality rates; healthy adjusted life expectancy (HALE); aging well; disability among elderly; the aging brain; use of hormones in menopause; sex and aging; mild cognitive impairment; diagnosis and treatment of Alzheimer's disease; osteoporosis; death literacy and education; a “good” death; grieving college students; complicated grief.

Supplemental Resources

Health MindTap for *An Invitation to Health: Your Life, Your Future*

A new approach to highly personalized online learning. Beyond an eBook, homework solution, digital supplement, or premium website, MindTap is a digital learning platform that works alongside your

campus LMS to deliver course curriculum across the range of electronic devices in your life. MindTap is built on an “app” model allowing enhanced digital collaboration and delivery of engaging content across a spectrum of Cengage and non-Cengage resources.

Diet & Wellness Plus

Diet & Wellness Plus helps you understand how nutrition relates to your personal health goals. Track your diet and activity, generate reports, and analyze the nutritional value of the food you eat. Diet & Wellness Plus includes over 75,000 foods as well as custom food and recipe features. The Behavior Change Planner helps you identify risks in your life and guides you through the key steps to make positive changes. Diet & Wellness Plus is also available as an app that can be accessed from the app dock in MindTap.

Instructor Companion Site

Everything you need for your course in one place! This collection of book-specific lecture and class tools is available online via www.cengage.com/login. Access and download PowerPoint presentations, images, instructor’s manual, chapter references, videos, and more.

Global Health Watch

Bring currency to the classroom with Global Health Watch from Cengage Learning. This user-friendly website provides convenient access to thousands of trusted sources—including academic journals, newspapers, videos, and podcasts—for you to use for research projects or classroom discussion. Global Health Watch is updated daily to offer the most current news about topics related to nutrition.

Cengage Learning Testing Powered by Cognero

This flexible online system allows the instructor to author, edit, and manage test bank content from multiple Cengage Learning solutions; create multiple test versions in an instant; and deliver tests from an LMS, a classroom, or wherever the instructor wants.

Acknowledgments

It takes a team of top-notch professionals to create a successful and effective textbook. I appreciate and applaud our product manager Krista Mastroianni; content developer Miriam Myers, who shepherds both the print book and MindTap; product assistant Marina Starkey; production project manager Carol Samet; SPI Global project manager Michael McGranaghan; art director Michael Cook; and marketing manager Ana Albinson.

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Janet Grochowski, *University of St. Thomas*
Jack Gutierrez, *Central Community College*
Autumn R. Hamilton, *Minnesota State University*
Christy D. Hawkins, *Thomas Nelson Community College*
Stephen Haynie, *College of William and Mary*
Amy Hedman, *Mankato State University*
Ron Heinrichs, *Central Missouri State University*
Candace H. Hendershot, *University of Findlay*
Michael Hoadley, *University of South Dakota*
Debbie Hogan, *Tri County Community College*
Margaret Hollinger, *Reading Area Community College*
Harold Horne, *University of Illinois at Springfield*
Linda L. Howard, *Idaho State University*
Mary Hunt, *Madonna University*
Kim Hyatt, *Weber State University*
Bill Hyman, *Sam Houston State University*
Dee Jacobsen, *Southeastern Louisiana University*
John Janowiak, *Appalachian State University*
Peggy Jarnigan, *Rollins College*
Jim Johnson, *Northwest Missouri State University*
Chester S. Jones, *University of Arkansas*
Herb Jones, *Ball State University*
Jane Jones, *University of Wisconsin, Stevens Point*
Lorraine J. Jones, *Muncie, Indiana*
Walter Justice, *Southwestern College*
Becky Kennedy-Koch, *The Ohio State University*
Margaret Kenrick, *Los Medanos College*
Anthony F. Kiszewski, *Bentley University*
Mark J. Kittleson, *Southern Illinois University*
Darlene Kluka, *University of Central Oklahoma*
John Kowaczyk, *University of Minnesota Duluth*
Debra A. Krummel, *West Virginia University*
Roland Lamarine, *California State University, Chico*
Gina LaMonica, *Ed.D. Adjunct Health and Nutrition Instructor, Exercise Physiologist, Health and Nutrition Consultant, Ventura College*
David Langford, *University of Maryland, Baltimore County*

Terri Langford, *University of Central Florida*
 Beth Lanning, *Baylor University*
 Norbert Lindskog, *Harold Washington College*
 Loretta Liptak, *Youngstown State University*
 Raymond A. Lomax, *Kean University*
 Michelle Lomonaco, *The Citadel*
 David G. Lorenzi, *West Liberty State College*
 S. Jack Loughton, *Weber State University*
 Rick Madson, *Palm Beach Community College*
 Ashok Malik, *College of San Mateo*
 Michele P. Mannion, *Temple University*
 Jerry Mayo, *Hendrix College*
 Wajeelha Mazhar, *California Polytechnic State University-Pomona*
 Jessica Middlebrooks, *University of Georgia*
 Claudia Mihovk, *Georgia Perimeter College*
 Kim H. Miller, *University of Kentucky*
 Susan Milstein, *Montgomery College*
 Esther Moe, *Oregon Health Sciences University*
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 Lisa M. Moran, MSHS, RVT, RDMS, PhD (ABD), *Kentucky Community and Technical College System*
 Richard Morris, *Rollins College*
 Dr. Jonathan T. Moss, *Montclair State University*
 Rosemary Moulahan, *High Point University*
 Sophia Munro, *Palm Beach Community College*
 John W. Munson, *University of Wisconsin-Stevens Point*
 Jeannie M. Neiman, *Edmonds Community College*
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 Emogene Johnson Vaughn, *Norfolk State University*
 Jennifer Vickery, *Winthrop College*
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About the Author

Dianne Hales is one of the most widely published and honored freelance journalists in the country. She is the author of 15 trade books, including *Mona Lisa: A Life Discovered*; *La Bella Lingua*; *Just Like a Woman*; *Think Thin, Be Thin*; and *Caring for the Mind*, with translations into Chinese, Japanese, Italian, French, Spanish, Portuguese, German, Dutch, Swedish, Danish, and Korean.

Hales has received the highest honor the government of Italy can bestow on a foreigner, an honorary knighthood, with the title *Cavaliere dell' Ordine della Stella della Solidarietà Italiana* (Knight of the Order of the Star of Italian Solidarity) in recognition of her book *La Bella Lingua*, a *New York Times* bestseller, as “an invaluable tool for promoting the Italian language.”

Hales is a former contributing editor for *Parade*, *Ladies' Home Journal*, *Working Mother*, and *American Health* and has written more than 1,000 articles for publications including *Family Circle*, *Glamour*, *Good Housekeeping*, *Health*, *The New York Times*, *Reader's Digest*, *The Washington Post*, *Woman's Day*, and *The World Book Encyclopedia*.

Hales has received writing awards from the American Psychiatric Association and the American Psychological Association, an EMMA (Exceptional Media Merit Award) for health reporting from the National Women's Political Caucus and Radcliffe College, three EDI (Equality, Dignity, Independence) awards for print journalism from the National Easter Seal Society, the National Mature Media Award, and awards from the Arthritis Foundation, California Psychiatric Society, CHADD (Children and Adults with Attention Deficit/Hyperactivity Disorder), Council for the Advancement of Scientific Education, and New York City Public Library.



Julia Hales



WHAT DO YOU THINK?

- What does “health” mean to you?
- How healthy are today’s college students?
- Do race and gender affect health?
- Can people successfully change their health behaviors?

After reading this chapter, you should be able to:

- | | |
|--|---|
| 1.1 Define health and wellness. | 1.6 Describe the impact of habits formed in college on future health. |
| 1.2 Outline the dimensions of health. | 1.7 Explain the influences on behavior that support or impede healthy change. |
| 1.3 Assess the current health status of Americans. | 1.8 Identify the stages of change. |
| 1.4 Discuss health disparities based on gender and race. | |
| 1.5 Evaluate the health behaviors of undergraduates. | |

An Invitation to Health

Keisha always thought of health as something you worry about when you get older. Then her twin brother developed a health problem she'd never heard of: prediabetes (discussed in Chapter 12), which increased his risk of diabetes and heart disease. At a health fair on campus, she found out that her blood pressure was higher than normal. She also learned that young adults with high blood pressure could be at greater risk of heart problems in the future.¹

"Maybe I'm not too young to start thinking about my health," Keisha concluded. Neither are you, whether you're a traditional-age college student or, like an ever-increasing number of undergraduates, years older.

An Invitation to Health is both **about** and **for** you; it asks you to go beyond thinking about your health to taking charge and making healthy choices for yourself and your future. This book includes material on your mind and your body, your spirit and your social ties, your needs and your wants, your past and your potential. It will help you explore options, discover possibilities, and find new ways to make your life worthwhile.

What you learn from this book and in this course depends on you. You have more control over your life and well-being than anything or anyone else does. Through the decisions you make and the habits you

develop, you can influence how well—and perhaps how long—you will live.

The time to start is **now**. Every day, you make choices that have short- and long-term consequences for your health. Eat a high-fat meal, and your blood chemistry changes. Spend a few hours slumped in front of the television, and your metabolism slows. Chug a high-caffeine energy drink, and your heart races. Have yet another beer, and your reflexes slow. Text while driving, and you may weave into another lane. Don't bother with a condom, and your risk of sexually transmitted infection (STI) skyrockets.

Sometimes making the best choices demands making healthy changes in your life. This chapter shows you how—and how to live more fully, more happily, and more healthfully. This is an offer that you literally cannot afford to refuse. Your life may depend on it—starting now.<

Health and Wellness

By simplest definition, **health** means being sound in body, mind, and spirit. The World Health Organization defines *health* as "not merely the

absence of disease or infirmity" but "a state of complete physical, mental, and social well-being." Health involves discovering, using, and protecting all the resources within your body, mind, spirit, family, community, and environment.

Health has many dimensions: physical, psychological, spiritual, social, intellectual, environmental, occupational, and financial. This book integrates these aspects into a *holistic* approach that looks at health and the individual as a whole rather than part by part.

health A state of complete well-being, including physical, psychological, spiritual, social, intellectual, and environmental dimensions.



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Robin Sjolborg/Getty Images

Health is the process of discovering, using, and protecting all the resources within our bodies, minds, spirits, families, communities, and environment.

Your own definition of health may include different elements, but chances are you and your classmates would include at least some of the following:

- A positive, optimistic outlook.
- A sense of control over stress and worries, time to relax.
- Energy and vitality, freedom from pain or serious illness.
- Supportive friends and family, and a nurturing intimate relationship with someone you love.
- A personally satisfying job or intellectual endeavor.
- A clean, healthful environment.

✓check-in How would you define health?

Wellness can be defined as purposeful, enjoyable living or, more specifically, a deliberate lifestyle choice characterized by personal responsibility and optimal enhancement of physical, mental, and spiritual health. In the broadest sense, wellness is:

- A decision you make to move toward optimal health.
- A way of life you design to achieve your highest potential.
- A process of developing awareness that health and happiness are possible in the present.
- The integration of body, mind, and spirit.
- The belief that everything you do, think, and feel has an impact on your state of health and the health of the world.

✓check-in What does wellness mean to you?

The Dimensions of Health

By learning more about the dimensions of health, you gain insight into the complex interplay of factors that determine your level of wellness. The following are the most commonly recognized dimensions of health and wellness, but some models treat emotional, cultural, or financial health as separate categories rather than aspects of psychological, social, or occupational health.

✓check-in What do you consider the most important or relevant dimensions of health?

wellness A deliberate lifestyle choice characterized by personal responsibility and optimal enhancement of physical, mental, and spiritual health.

Physical Health The 1913 *Webster's Dictionary* defined *health* as “the state of being hale, sound, or whole, in body, mind, or soul,

especially the state of being free from physical disease or pain.” More recent texts define physical health as an optimal state of well-being, not merely the absence of disease or infirmity. Health is not a static state but a process that depends on the decisions we make and the behaviors we practice every day. To ensure optimal physical health, we must feed our bodies nutritiously, exercise them regularly, avoid harmful behaviors and substances, watch for early signs of sickness, and protect ourselves from accidents.

Psychological Health Like physical well-being, psychological health, discussed in Chapter 2, encompasses our emotional and mental states—that is, our feelings and our thoughts. It involves awareness and acceptance of a wide range of feelings in oneself and others, as well as the ability to express emotions, to function independently, and to cope with the challenges of daily stressors.

Spiritual Health Spiritually healthy individuals identify their own basic purpose in life; learn how to experience love, joy, peace, and fulfillment; and help themselves and others achieve their full potential. As they devote themselves to others’ needs more than their own, their spiritual development produces a sense of greater meaning in their lives.

Social Health Social health refers to the ability to interact effectively with other people and the social environment, to develop satisfying interpersonal relationships, and to fulfill social roles. It involves participating in and contributing to your community, living in harmony with fellow human beings, developing positive interdependent relationships, and practicing healthy sexual behaviors. (See Chapter 8.)

Intellectual Health Every day, you use your mind to gather, process, and act on information; to think through your values; to make decisions; set goals; and figure out how to handle a problem or challenge. Intellectual health refers to your ability to think and learn from life experience, your openness to new ideas, and your capacity to question and evaluate information. Throughout your life, you’ll use your critical thinking skills, including your ability to evaluate health information, to safeguard your well-being.

Environmental Health You live in a physical and social setting that can affect every aspect of your health. Environmental health refers to the impact your world has on your well-being. It involves protecting yourself from dangers in

the air, water, and soil, as well as in products you use—and working to preserve the environment itself. (See Chapter 19.)

Occupational and Financial Health

Even a part-time job can have an impact on your health. In a recent study, freshmen who worked more than 10 hours a week were somewhat more likely to drink and smoke than students who weren't employed.² However, they may be gaining valuable experience in managing their time, setting priorities, and finding a healthy balance in their lives.

After graduation, you will devote much of your time and energy to your career. Ideally, you will contribute your unique talents and skills to work that is rewarding in many ways—intellectually, emotionally, creatively, and financially. College provides the opportunity for you to choose and prepare for a career that is consistent with your personal values and beliefs and to learn how to manage your money and safeguard your financial well-being.

Community Health Educators have expanded the traditional individualistic concept of health to include the complex interrelationships between one person's health and the health of the community and environment. This change in perspective has given rise to a new emphasis on **health promotion**, which educators define as “any planned combination of educational, political, regulatory, and organizational supports for actions and conditions of living conducive to the health of individuals, groups, or communities.”³ Examples on campus include establishing smoke-free policies for all college buildings, residences, and dining areas; prohibiting tobacco advertising and sponsorship of campus social events; ensuring safety at parties; and enforcing alcohol laws and policies.

Health in America

✓**check-in** Do you exercise regularly?

Eat nutritious meals? Maintain a healthy

weight? Avoid smoking? If you answer

yes to all four questions, you're among the 2.7 percent of Americans who do so.

According to a national survey of more than 4,700 people, 97.3 percent get a failing grade in healthy lifestyle habits. For the minority who do



alicia neumiller/Shutterstock.com

Your choices and behaviors during your college years can influence how healthy you will be in the future.

adapt these health guidelines, the payoff includes a lower risk of many health problems, including type 2 diabetes, heart disease, and cancer. Although few Americans get a perfect health-habit score, a significant number report at least one healthy habit:

- 71 percent do not smoke.
- 46 percent get sufficient amounts of physical activity.
- 38 percent eat a healthy diet.
- 10 percent have a normal body fat percentage (see Chapter 6).

Women are more likely than men to not smoke and to eat a healthy diet but less likely to have adequate physical activity levels. Mexican Americans are more likely to eat a healthy diet than blacks or whites.⁴

Life expectancy at birth in the United States has declined recently to 76.7 years in men, with about 66.8 of those years spent in good health. For women, life expectancy averages 81.5 years, with 69.5 years spent in good health. Higher death rates from heart disease, diabetes, kidney disease, Alzheimer's, unintentional injuries, and suicide have contributed to the decline in life expectancy.⁵

health promotion Any planned combination of educational, political, regulatory, and organizational supports for actions and conditions of living conducive to the health of individuals, groups, or communities.

If you are under age 50, such calculations may not seem relevant to you. Think again. The Americans experiencing the greatest health deficits and losing the most years to illness, disability, and premature death are not the elderly but young adults. As a young American, your probability of reaching your 50th birthday is lower than in almost every other high-income nation. The main reasons for the gap in life discrepancy between the United States and 12 comparable countries are motor vehicle accidents, firearm-related injuries, and drug poisonings and overdoses.⁶

Quality of life matters as much as quantity. Rather than focus solely on life expectancy, experts are calculating healthy life expectancy (HALE), based on years lived without disease or disability. The average HALE for Americans is considerably shorter than their life expectancy: about 68 years.⁷

✓**check-in** How do you think your life expectancy and your healthy life expectancy (HALE) compare?

Healthy People 2020

Every decade since 1980, the U.S. Department of Health and Human Services (HHS) has published a comprehensive set of national public health

objectives as part of the Healthy People Initiative. The government's vision is to create a society in which all people can live long, healthy lives. Its mission includes identifying nationwide health improvement priorities, increasing public awareness of health issues, and providing measurable objectives and goals.⁸

The overarching goals for *Healthy People 2020* are as follows:

- Eliminate preventable disease, disability, injury, and premature death.
- Achieve health equity, eliminate disparities, and improve the health of all groups.
- Create social and physical environments that promote good health for all.
- Promote healthy development and healthy behaviors across every stage of life.

Here are examples of specific new recommendations that have been added to the national health agenda for 2020:

- **Nutrition and weight status:** Prevent inappropriate weight gain in youths and adults.
- **Tobacco use:** Increase smoking-cessation success by adult smokers.
- **Sexually transmitted infections:** Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if sexually active.
- **Substance abuse:** Reduce misuse of prescription drugs.
- **Heart disease and stroke:** Increase overall cardiovascular health in the U.S. population.
- **Injury and violence prevention:** Reduce sports and recreation injuries.

✓**check-in** If you were setting personal health objectives to attain by 2020, what would they be?

Health Disparities

Despite improvements in the overall health of the nation, Americans who are members of certain racial and ethnic groups—including African Americans, American Indians, Alaska Natives, Asian Americans, Hispanics, Latinos, and Pacific Islanders—are more likely than whites to suffer disease and disability, including major depression, poor physical health, functional limitations, and premature death. However, there has been progress in some

YOUR STRATEGIES FOR PREVENTION

If You Are at Risk

Certain health risks may be genetic, but behavior influences their impact. Here are specific steps you can take to protect your health:

- **Ask if you are at risk for any medical conditions or disorders based on your family history or racial or ethnic background.**
- **Find out if there are tests that could determine your risks.** Discuss the advantages and disadvantages of such testing with your doctor.
- **If you or a family member requires treatment for a chronic illness, ask your doctor whether any medications have proved particularly effective for your racial or ethnic background.**
- **If you are African American, you are significantly more likely to develop high blood pressure, diabetes, and kidney disease.** Being overweight or obese adds to the danger. The information in Chapters 6 through 8 can help you lower your risk by keeping in shape, making healthy food choices, and managing your weight.
- **Hispanics and Latinos have disproportionately high rates of respiratory problems, such as asthma, chronic obstructive lung disease, and tuberculosis.** To protect your lungs, stop smoking and avoid secondary smoke. Learn as much as you can about the factors that can trigger or worsen lung diseases.

important areas, including less racial discrepancy in infant death rates, cesarean birth rates, and smoking among women.⁹

Genetic variations, environmental influences, and specific health behaviors contribute to health disparities, but poverty may be a more significant factor. A much higher percentage of blacks (26 percent) than non-Hispanic whites (10 percent) live below the federal poverty level and may be unable to get needed medical treatment.¹⁰ This may be changing for young Americans. The expected lifespan for those under age 20 is less affected by whether they are rich or poor now than in the past.¹¹

If you are a member of a racial or ethnic minority, you need to educate yourself about your health risks, take responsibility for those within your control, and become a savvy, assertive consumer of health-care services. The federal Office of Minority Health and Health Disparities (www.cdc.gov/omhd), which provides general information and the latest research and recommendations, is a good place to start.

✓check-in Are you a member of a racial or ethnic minority? If so, do you think this status affects your health or health care?

Why Race Matters If, like many other Americans, you come from a racially mixed background, your health profile may be complex. Here are just some of the differences race makes:¹²

- Black Americans lose substantially more years of potential life to homicide (nine times as many), stroke (three times as many), and diabetes (three times as many) as whites.
- About 1 to 3 Hispanics has prediabetes; only about half of Hispanics with diabetes have it under control.¹³
- Caucasians are prone to osteoporosis (progressive weakening of bone tissue), cystic fibrosis, skin cancer, and phenylketonuria (PKU, a metabolic disorder that can lead to cognitive impairment).
- Native Americans, including those indigenous to Alaska, are more likely to die young than the population as a whole, primarily as a result of accidental injuries, cirrhosis of the liver, homicide, pneumonia, and complications of diabetes.
- The suicide rate among American Indians and Alaska Natives is 50 percent higher than the national rate. The rates of co-occurring mental illness and substance abuse (especially alcohol abuse) are also higher among Native American youth and adults.



John Lund/Marc Romanelli/Getty Images

Heredity places this Pima Indian infant at higher risk of developing diabetes, but environmental factors also play a role.

Cancer Overall, black Americans are more likely to develop cancer than persons of any other racial or ethnic group.¹⁴ As discussed in Chapter 12, medical scientists have debated whether the reason might be that treatments are less effective in blacks or whether many are not diagnosed early enough or treated rigorously enough.

Although blacks continue to have higher cancer death rates than whites, the disparity has narrowed for all cancers combined in men and women, and for lung and prostate cancers in men. However, the racial gap in death rates has widened for breast cancer in women and remained level for colorectal cancer in men.¹⁵

- African American women are more than twice as likely to die of cervical cancer as are white women, and are more likely to die of breast cancer than are women of any racial or ethnic group except Native Hawaiians.

- Native Hawaiian women have the highest rates of breast cancer. Women from many racial minorities, including those of Filipino, Pakistani, Mexican, and Puerto Rican descent, are more likely to be diagnosed with late-stage breast cancer than white women.
- Cancer has surpassed heart disease as the leading cause of death among Hispanics in the United States, with an overall prevalence rate of 4 percent.¹⁶

Cardiovascular Disease Heart disease and stroke are the leading causes of death for all racial and ethnic groups in the United States, but mortality rates of death from these diseases are higher among African American adults than among white adults. African Americans also have higher rates of high blood pressure (hypertension), develop this problem earlier in life, suffer more severe hypertension, and have higher rates of stroke.

Diabetes American Indians and Alaska Natives, African Americans, and Hispanics are twice as likely to be diagnosed with diabetes as are non-Hispanic whites.

Infant Mortality African American, American Indian, and Puerto Rican infants have higher death rates than white infants.

Mental Health American Indians and Alaska Natives suffer disproportionately from depression and substance abuse. Minorities have less access to mental health services and are less likely to receive needed high-quality mental health services.¹⁷ The prevalence of dementia varies significantly among Americans of different racial and ethnic groups, with the highest rates among blacks and American Indians/Alaskan Natives and the lowest among Asian Americans. Hispanics and whites have intermediate rates.¹⁸

Infectious Disease Asian Americans and Pacific Islanders have much higher rates of hepatitis B than other racial groups. Black teenagers and young adults become infected with hepatitis B three to four times more often than those who are white. Black people also have a higher incidence of hepatitis C infection than white people. Almost 80 percent of reported cases affect racial and ethnic minorities.

HIV and Sexually Transmitted Infections Although African Americans and Hispanics represent only about one-quarter of the U.S. population, they account for about two-thirds of adult AIDS cases and more than 80 percent of pediatric AIDS cases.¹⁹

Sex, Gender, and Health

Medical scientists define sex as a classification, generally as male or female, according to the reproductive organs and functions that derive from the chromosomal complement. *Gender* refers to a person's self-representation as male or female or how social institutions respond to a person on the basis of the individual's gender presentation. Gender is rooted in biology and shaped by environment and experience.

The experience of being male or female in a particular culture and society can and does have an effect on physical and psychological well-being. In fact, sex and gender may have a greater impact than any other variable on how our bodies function, how long we live, and the symptoms, course, and treatment of the diseases that strike us (see Figure 1.1).

Here are some health differences between men and women:

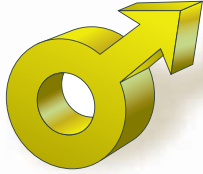
- Boys are more likely to be born prematurely, to suffer birth-related injuries, and to die before their first birthdays than girls.
- Men around the world have shorter lifespans than women and higher rates of cancer, heart disease, stroke, lung disease, kidney disease, liver disease, and HIV/AIDS.²⁰ They are four times more likely to take their own lives or to be murdered than women.
- Cardiovascular disease is the leading cause of death for women in the United States, yet only about one-third of clinical trial subjects in cardiovascular research have been female.
- Lung cancer is the leading cause of cancer death among women, with increased rates particularly among young female nonsmokers.
- Women are 70 percent more likely than men to suffer from depression over the course of their lifetimes.

✓check-in How do you think your gender affects your health?

Among the reasons that may contribute to the health and longevity gap between the sexes are the following:

- **Biological factors.** For example, women have two X chromosomes and men only one, and men and women have different levels of sex hormones (particularly testosterone and estrogen).
- **Social factors.** These include work stress, hostility levels, and social networks and supports.

He:



- averages 12 breaths a minute
- has lower core body temperature
- has a slower heart rate
- has more oxygen-rich hemoglobin in his blood
- is more sensitive to sound
- produces twice as much saliva
- has a 10 percent larger brain
- is 10 times more likely to have attention deficit disorder
- as a teen, has an attention span of 5 minutes
- is more likely to be physically active
- is more prone to lethal diseases, including heart attacks, cancer, and liver failure
- is five times more likely to become an alcoholic
- has a life expectancy of 76 years

She:



- averages 9 breaths a minute
- has higher core body temperature
- has a faster heart rate
- has higher levels of protective immunoglobulin in her blood
- is more sensitive to light
- takes twice as long to process food
- has more neurons in certain brain regions
- is twice as likely to have an eating disorder
- as a teen, has an attention span of 20 minutes
- is more likely to be overweight
- is more vulnerable to chronic diseases, like arthritis and autoimmune disorders, and age-related conditions like osteoporosis
- is twice as likely to develop depression
- has a life expectancy of 81 years

FIGURE 1.1 Some of the Many Ways Men and Women Are Different

- **Behavioral factors.** Men and women differ in risky behavior, aggression, violence, smoking, and substance abuse.
- **Health habits.** The sexes vary in terms of regular screenings, preventive care, and minimizing symptoms.

Sexual orientation can also affect health. Lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQQ) individuals are more likely to encounter health disparities linked to social stigma, discrimination, and denial of their human and civil rights.²¹ Gender-based discrimination increases the risk of psychiatric disorders, substance abuse, and suicide. On campus, transgender students may face particular stigma over so-called “bathroom bills” that require them to use public facilities corresponding with the sex designated on their birth certificates.²² The *Healthy People 2020* initiative has made improvements in LGBTQQ health one of its new goals.

Health on Campus

As one of an estimated 21 million college students in the United States, you are part of a remarkably diverse group. Today’s undergraduates come from every age group and social, racial, ethnic, economic, political, and religious background. Some 12 million are female; 9 million, male. You may have served in the military, started a family,

or emigrated from another country. You might be enrolled in a two-year college, a four-year university, or a technical school. Your classrooms might be in a busy city or a small town—or they might exist solely as a virtual campus. Although the majority of undergraduates are “traditional” age (between 18 and 24 years), more of you than ever before—8 million—are over age 25.²³

Today’s college students are both similar to and different from previous generations in many ways. Among the unique characteristics of current undergraduates are the following:

- They are the first generation of “digital natives,” who’ve grown up in a wired world.
- They are the most diverse in higher education history. About 15 percent are black; an equal percentage are Hispanic.
- They are both more connected and more isolated than their predecessors, with a “tribe” of friends, family, and acquaintances in constant contact through social media but with weak interpersonal, communications, and problem-solving skills.
- More students are working, working longer hours, taking fewer credits, requiring more time to graduate, and leaving college with large student loan debts.
- They are more coddled and protected by parents, who remain very involved in their daily lives.
- They face a future in which the pace and scale of change will constantly accelerate.

✓**check-in** A recent analysis of community college students identified four types of undergraduates: dreamers, drifters, passengers, and planners. Here is some specific advice for each type:

- If you're a dreamer, seek guidance to fill in the details of your "big picture" goal for college.
- If you're a drifter, focus on developing specific strategies to reach your educational goals.
- If you're a passenger, find a mentor or advisor to help you interpret what you learn.
- If you're a planner, look for help in applying the information you've gathered to your unique situation.²⁴

College and Health

Although the words "college health" often appear together, they are, in fact, two different things that profoundly influence each other. Healthier students get better grades and are more likely to graduate. A college education boosts health status, income, and community engagement later in life.²⁵ Yet the transition from high school to college is considered an at-risk period for health and healthy behaviors.

As studies in both the United States and Europe have documented, from their final year of high school to the second year of college, students are likely to:

- Gain weight, generally an average of 6 pounds.
- Cut back on their participation in sports—perhaps because they move away from local teams or they lack free time.
- Decrease some sedentary behaviors, such as streaming videos and playing computer games, but increase others, such as social media and studying.
- Eat fewer fruits and vegetables.
- Consume more alcohol.²⁶

Although healthier than individuals of the same age who are not attending college, undergraduates have significant health issues that can affect their overall well-being and ability to perform well in an academic environment:

- More than half report common acute illnesses, such as colds and flus, that interfere with their studies.

- A significant proportion report symptoms of depression, anxiety, and other mental disorders.
- For many, poor sleep has an impact on academic performance.
- They are more likely to use alcohol and drugs than nonstudents their age.
- College students experience higher rates of interpersonal violence.
- On the positive side, college students are less likely to be overweight or obese, to smoke, to consume high-fat and low-fiber foods, to have high cholesterol levels, and to engage in high-risk sexual behavior than young adults who are not attending college.
- Compared to those at four-year colleges, students at community colleges and technical schools are less likely to binge-drink but more likely to speed, consume more sodas, and report lower family satisfaction.²⁷

College represents a rite of passage, when undergraduates typically engage in "adult" behaviors such as drinking, getting involved in intimate relationships, and taking personal responsibility for health behaviors (e.g., sleep schedules and nutrition) that their parents may have previously supervised. Students cramming for a big exam may decide not to sleep and accept the short-term consequences on their health. Others, thinking ahead to future goals, may consciously choose to avoid behaviors, such as unsafe sex or drug use, that may jeopardize their plans. Students with high "health literacy" (discussed in Chapter 14) and greater concerns with health are more likely to adapt healthful habits.²⁸

✓**check-in** Do you feel that today's undergraduates face unique pressures that can take a toll on physical and psychological health?

How Healthy Are Today's Students?

In the American College Health Association's National College Health Assessment (ACHA-NCHA) survey, about half of college students—57 percent of men and 47 percent of women—rate their health as very good or excellent (see Snapshot: On Campus Now).²⁹ Here are some details about the health and habits of undergraduates:

- About one in four (37 percent) of undergraduates have a body mass index (BMI) indicating they are overweight or obese (see Chapter 6). In a study that followed students over 4 years

SNAPSHOT: ON CAMPUS NOW

Student Health

Percentage of students who describe their health as good, very good, or excellent:

Men	Women	Average
86.5	82.9	83.7
Top Ten Health Problems		Percent
1. Allergies		19
2. Sinus infection		16
3. Back pain		12
4. Strep throat		11
5. Urinary tract infection		10
6. Asthma		9
7. Migraine headache		8
8. Ear infection		7
9. Broken bone/fracture/sprain		6
10. Bronchitis		6

Proportion of college students who reported being diagnosed or treated for these health problems in the past year.

Source: American College Health Association. American College Health Association-National College Health Assessment II: Undergraduate Student Reference Group Executive Summary. Hanover, MD: American College Health Association; Spring 2016.

of college, just over half gained weight while nearly 30 percent lost weight.³⁰

- Fewer than half (47 percent) of undergraduates get the recommended amounts of physical activity (see Chapter 7).
- Of those engaging in vaginal intercourse, about half report having used a condom most of the time or always (see Chapter 9).
- About 6 in 10 students report drinking alcohol at least once in the previous month; more than 3 in 10 report having consumed five or more drinks in a single sitting at least once within the past 2 weeks (see Chapter 16).
- About 9 percent smoked a cigarette at least once in the past month. A growing number are trying e-cigarettes, which they perceive as less risky and addictive than conventional cigarettes,³¹ but which increase the likelihood of cigarette smoking³² (see Chapter 17).
- One in five used marijuana in the previous month (see Chapter 15).
- Many undergraduates use prescription stimulants because they believe the drugs can

provide academic benefits, but longitudinal studies have found no detectable improvements in grades³³ (see Chapter 15).

- In a recent sample of college students, 9.5 percent reported misuse of prescription opioid drugs at some time in their lives, primarily to relieve physical or emotional pain, “feel good/get high,” or experiment³⁴ (see Chapter 15).
- Only 12 percent of students say they get enough sleep to feel rested in the morning 6 or more days a week; 11 percent never feel rested (see Chapter 2).
- College athletes have lower health-related quality of life than their same-age peers who did not or no longer play college sports.³⁵
- More than half of undergraduates have been tested for HIV in the last year, but 4 in 10 of sexually active students have not been tested.³⁶

✓**check-in** How do you think your current health behaviors may affect your future?

HEALTH NOW!

First Steps

- To lower your risk of heart disease, get your blood pressure and cholesterol checked. Don't smoke. Stay at a healthy weight. Exercise regularly.
- To lower your risks of major diseases, get regular check-ups. Make sure you are immunized against infectious illnesses.
- To lower your risks of substance abuse and related illnesses and injuries, don't drink, or limit how much you drink. Avoid illegal drugs.
- To lower your risk of sexually transmitted infections or unwanted pregnancy, abstain from sex. If you engage in sexual activities, protect yourself with contraceptives, condoms, and spermicides.
- To prevent car accidents, stay off the road in hazardous circumstances, such as bad weather. Wear a seat belt when you drive and use defensive driving techniques.

Identify your top preventive health priority—lowering your risk of heart disease, for instance, or avoiding accidents. Write down a single action you can take this week that will reduce your health risks. As soon as you take this step, write a brief reflection in your online journal.

Colleges and universities have tried various interventions to improve students' health choices and habits. Do they work? In a meta-analysis of 41 studies, most conducted in the United States, 34 yielded significant improvements in one of several key outcomes, including the following:

- **Physical activity:** more steps per day, more time in vigorous and/or moderate exercise, greater maximum oxygen consumption, and improved muscle strength, endurance, and flexibility.
- **Nutrition:** lower calorie intake, more fruits and vegetables, reduced fat consumption, more macronutrients, and better overall diet quality.
- **Weight:** improved weight, lower body fat, and healthier waist circumference and waist-to-hip ratio.

The most effective interventions spanned a semester or less, targeted only nutrition rather than multiple behaviors, and were imbedded within college courses. As the researchers noted, "Universities and colleges are an ideal setting for implementation of health promotion programs." Why?

- They reach a large student population during a crucial life transition.
- They offer access to world-class facilities, technology, and highly educated staff in various health disciplines.
- They reach young adults at an age "where health behaviors that impact on health later in life can be provided."³⁷

The Future Starts Now

The choices you make today have an immediate impact on how you feel as well as long-term consequences, including the following:

- Individuals who begin using tobacco or alcohol in their teens and 20s are more likely to continue to do so as they get older.
- Obese children often grow into obese adolescents and obese adults, with ever-increasing risks of diabetes and cardiovascular disease.
- People in their 20s who have even mildly elevated blood pressure face an increased risk of clogged heart arteries by middle age.

- Young adults who acquire an STI may jeopardize both their future fertility and their health.

At any age, health risks are not inevitable. As recent research has shown, young adults with high aerobic fitness (discussed in Chapter 7) have a reduced risk of cardiovascular disease later in life.³⁸ Simple steps such as those listed in Health Now! can get you started in the right direction now!

Student Health Norms

Psychologists use the term *norm*, or **social norm**, to refer to a behavior or an attitude that a particular group expects, values, and enforces. Norms influence a wide variety of human activities, including health habits. However, perceptions of social norms are often inaccurate. Only anonymous responses to a scientifically designed questionnaire can reveal what individuals really do—the actual social norms—as compared to what they may say they do to gain social approval.

Undergraduates are particularly likely to misjudge what their peers are—and aren't—doing. In recent years, colleges have found that publicizing research data on behaviors such as drinking, smoking, and drug use helps students get a more accurate sense of the real health norms on campus.

The gap between students' misperceptions and accurate health norms can be enormous. For example, undergraduates in the ACHA survey estimate that only 12 percent of students had never smoked cigarettes. In fact, 77 percent never had. Students guessed that only 4 percent of their peers never drank alcohol. In reality, 21 percent never did.³⁹ Providing accurate information on drinking norms on campus has proven effective in changing students' perceptions and in reducing alcohol consumption by both men and women.

✓**check-in** Do you think your peers have better or worse health habits than you?

The Promise of Prevention

Although you may think you are too young to worry about serious health conditions, many chronic problems begin early in life:

- Two percent of college-age women already have osteoporosis, a bone-weakening disease; another 15 percent have osteopenia, a low bone density that puts them at risk of osteoporosis.
- Many college students have several risk factors for heart disease, including high

social norm A behavior or an attitude that a particular group expects, values, and enforces.

blood pressure and high cholesterol. Others increase their risk by eating a high-fat diet and not exercising regularly. The time to change is now.

No medical treatment, however successful or sophisticated, can compare with the power of **prevention**. Two out of every three deaths and 1 in 3 hospitalizations in the United States could be prevented by changes in six main risk factors: tobacco use, alcohol abuse, accidents, high blood pressure, obesity, and gaps in screening and primary health care.

Prevention remains the best weapon against cancer and heart disease. One of its greatest successes has come from the antismoking campaign, which in the past 40 years has prevented 8 million premature deaths in the United States, giving these ex-smokers an average of nearly 20 additional years of life.⁴⁰

Protecting Yourself

There is a great deal of overlap between prevention and **protection**. Some people might think of immunizations as a way of preventing illness; others see them as a form of protection against dangerous diseases. Unfortunately, many adults are not getting the immunizations they need—and are putting their health in jeopardy as a result. (See Chapter 13 to find out which vaccinations you should receive.)

You can prevent STIs or unwanted pregnancy by abstaining from sex. But if you decide to engage in sexual activities, you can protect yourself with condoms and spermicides. Similarly, you can prevent many automobile accidents by not driving when road conditions are hazardous. But if you do have to drive, you can protect yourself by wearing a seat belt and using defensive driving techniques.

.....
✓**check-in** What steps are you taking to protect your health?
.....

Understanding Risky Behaviors

Today’s students face different—and potentially deadlier—risks than undergraduates did a generation or two ago. The problem is not that students who engage in risky behavior feel invulnerable or do not know the danger. Young people, according to recent research, actually overestimate the risk of some outcomes. However, they also overestimate the benefit of immediate pleasure when, for instance, engaging in unsafe sex, and they



Regular screening of vital signs, such as blood pressure, can lead to early detection of a potentially serious health problem.

underestimate the negative consequences, such as an STI.

College-age men are more likely than women to engage in risky behaviors—to use drugs and alcohol, to have unprotected sex, and to drive dangerously. Men are also more likely to be hospitalized for injuries and to commit suicide. Three-fourths of the deaths in the 15- to 24-year-old age range are men.

Drinking has long been part of college life and, despite efforts across U.S. college campuses to curb alcohol abuse, 2 out of 5 students engage in binge drinking—consumption of five or more drinks at a single session for men or four for women. Heavy drinking increases the likelihood of other risky behaviors, such as smoking cigarettes, using drugs, and having multiple sexual partners. New trends, such as drinking caffeinated alcoholic beverages (discussed in Chapter 16), vaping (Chapter 17), and using dangerous stimulants called “bath salts” (Chapter 15), present new risks.

.....
✓**check-in** What is the greatest health risk you’ve ever taken?
.....

prevention Information and support offered to help healthy people identify their health risks, reduce stressors, prevent potential medical problems, and enhance their well-being.

protection Measures that an individual can take when participating in risky behavior to prevent injury or unwanted risks.

Invest in Yourself

As the economy has declined, visits to doctors have dropped, and millions of people are not taking prescribed medications. However, trying to save money in the short term by doing without needed health care can cost you a great deal—financially and physically—in the long term. Here are some ways to keep medical costs down without sacrificing your good health:

- **Stay healthy.** Use this book to learn the basics of a healthy lifestyle and then live accordingly. By eating nutritiously, exercising, getting enough sleep, not smoking, and getting regular immunizations, you'll reduce your risk of conditions that require expensive treatments.
- **Build a good relationship with a primary care physician.** Although your choices may be limited, try to schedule appointments with the same doctor. A physician who knows you, your history, and your concerns can give the best advice on staying healthy.

- **Don't go to a specialist without consulting your primary care provider,** who can help you avoid overtesting and duplicate treatments.
- **If you need a prescription, ask if a generic form is available.** Brand names cost more, and most insurers charge higher copayments for them.
- **Take medications as prescribed.** Skipping doses or cutting pills in two may seem like easy ways to save money, but you may end up spending more for additional care because the treatment won't be as effective.
- **Don't go to an emergency department unless absolutely necessary.** Call your doctor for advice or go to the student health service. Emergency departments are overburdened with caring for the very ill and for injured people, and their services are expensive.

Making Healthy Changes

If you would like to improve your health behavior, you have to realize that change isn't easy. Between 40 and 80 percent of those who try to kick bad health habits lapse back into their unhealthy ways within 6 weeks (see *Health on a Budget*). Fortunately, our understanding of change has itself changed. Thanks to decades of research, we now know what sets the stage for change, the way change progresses, and the keys to lasting change. We also know that personal change is neither mysterious nor magical but rather a methodical science that anyone can master.

✓**check-in** What health-related change would you like to make?

predisposing factors The beliefs, values, attitudes, knowledge, and perceptions that influence our behavior.

enabling factors The skills, resources, and physical and mental capabilities that shape our behavior.

reinforcing factors Rewards, encouragement, and recognition that influence our behavior in the short run.

Understanding Health Behavior

Three types of influences shape behavior: predisposing, enabling, and reinforcing factors

Predisposing Factors **Predisposing factors** include knowledge, attitudes, beliefs, values, and perceptions. Unfortunately, knowledge isn't enough to cause most people to change their behavior; for example, people fully aware of the grim consequences of smoking often continue

to puff away. Nor is attitude—one's likes and dislikes—sufficient; an individual may dislike the smell and taste of cigarettes but continue to smoke anyway.

Beliefs are more powerful than knowledge and attitudes, and researchers report that people are most likely to change health behavior if they hold three beliefs:

- **Susceptibility.** They acknowledge that they are at risk for the negative consequences of their behavior.
- **Severity.** They believe that they may pay a very high price if they don't make a change.
- **Benefits.** They believe that the proposed change will be advantageous in some way. For example, they may quit smoking primarily for their health or for social acceptance, depending on their attitudes and self-esteem.⁴¹

Enabling Factors **Enabling factors** include skills, resources, accessible facilities, and physical and mental capacities. Before you initiate a change, assess the means available to reach your goal. No matter how motivated you are, you'll become frustrated if you keep encountering obstacles. Breaking down a task or goal into step-by-step strategies is very important in behavioral change.

Reinforcing Factors **Reinforcing factors** may be praise from family members and friends, rewards from teachers or parents, or encouragement and recognition for meeting a goal. Although these help a great deal in the short run, lasting change depends not on external rewards but on

an internal commitment and sense of achievement. To make a difference, reinforcement must come from within.

A decision to change a health behavior should stem from a permanent, personal goal, not from a desire to please or impress someone else. If you lose weight for the homecoming dance, you're almost sure to regain pounds afterward. But if you shed extra pounds because you want to feel better about yourself or get into shape, you're far more likely to keep off the weight.

✓**check-in** What goal would motivate you to change?

How People Change

Change can simply happen. You get older. You put on or lose weight. You have an accident. Intentional change is different: A person consciously, deliberately sets out either to change a negative behavior, such as chronic procrastination, or to initiate a healthy behavior, such as daily exercise. For decades, psychologists have studied how people intentionally change, and have developed various models that reveal the anatomy of change.

In the *moral model*, you take responsibility for a problem (such as smoking) and its solution; success depends on adequate motivation, while failure is seen as a sign of character weakness. In the *enlightenment model*, you submit to strict discipline to correct a problem; this is the approach used in Alcoholics Anonymous. The *behavioral model* involves rewarding yourself when you make positive changes. The *medical model* sees the behavior as caused by forces beyond your control (a genetic predisposition to being overweight, for example) and employs an expert to provide advice or treatment. For many people, the most effective approach is the *compensatory model*, which doesn't assign blame but puts responsibility on individuals to acquire whatever skills or power they need to overcome their problems.

Health Belief Model Psychologists developed the **health belief model (HBM)** about 50 years ago to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals. (Remember that your attitudes and beliefs are predisposing influences on your capacity for change.) According to this model, people will take a health-related action (e.g., use condoms) if they:

- Feel susceptible to a possible negative consequence, such as a sexually transmitted infection (STI).

- Perceive the consequence as serious or dangerous.
- Think that a particular action (using a condom) will reduce or eliminate the threat (of STIs).
- Feel that they can take the necessary action without difficulty or negative consequences.
- Believe that they can successfully do what's necessary—for example, use condoms comfortably and confidently.

Readiness to act on health beliefs, in this model, depends on how vulnerable individuals feel, how severe they perceive the danger to be, the benefits they expect to gain, and the barriers they think they will encounter. Another key factor is self-efficacy, confidence in their ability to take action.

In a study that tested the relationship between college students' health beliefs and cancer self-examinations, women were more likely to examine their breasts than men were to perform testicular exams. However, students of both sexes were more likely to do self-exams if they felt susceptible to developing cancer, if they felt comfortable and confident doing so, and if they were given a cue to action (such as a recommendation by a health professional).⁴²

Self-Determination Theory This approach, developed several decades ago by psychologists Edward Deci and Richard Ryan, focuses on whether an individual lacks motivation, is externally motivated, or is intrinsically motivated. Someone who is "amotivated" does not value an activity, such as exercise, or does not believe it will lead to a desired outcome, such as more energy or lower weight. Individuals who are externally motivated may engage in an activity like exercise to gain a reward or avoid a negative consequence (such as a loved one's nagging). Some people are motivated by a desired outcome; for instance, they might exercise for the sake of better health or longer life. Behavior becomes self-determined when someone engages in it for its own sake, such as exercising because it's fun.

Numerous studies have evaluated self-determination as it relates to health behavior. In research on exercise, individuals with greater self-determined motivation are less likely to stop exercising; they have stronger intentions to continue exercise, higher physical self-worth, and lower social anxiety related to their physique.

Motivational Interviewing Health professionals, counselors, and coaches use motivational interviewing, developed by psychologists

health belief model (HBM) A model of behavioral change that focuses on the individual's attitudes and beliefs.

William Miller and Stephen Rollnick, to inspire individuals, regardless of their enthusiasm for change, to move toward improvements that could make their lives better. The U.S. Public Health Service, based on its assessment of current research, recommends motivational interviewing as an effective way to increase all tobacco users' willingness to quit. Building a collaborative partnership, the therapist does not persuade directly but uses empathy and respect for the patient's perspective to evoke recognition of the desirability of change.

Self-Affirmation Theory Affirmations, discussed in Chapter 2, can improve integrity, problem solving, self-worth, and self-regulation. They are also effective in encouraging behavioral change. According to self-affirmation theory, thinking about core personal values, important personal strengths, or valued relationships can provide reassurance and reinforce self-worth. Repeating an affirmation is one of the fastest ways to restructure thought patterns, develop new pathways in the brain, and make individuals less defensive about changing health behaviors.⁴³

Recent neuroimaging studies have revealed how self-affirmations may increase the effectiveness of many health interventions. Using functional magnetic resonance imaging (fMRI), scientists were able to visualize changes in the brains of volunteers as they were reciting

affirmations in their minds. These internal messages produced more activity in a region of the brain associated with positive responses.⁴⁴

✓**check-in** Some common self-affirmations are “I am strong” or “I can handle this challenge.”

What would you say to yourself to encourage a behavioral change?

Transtheoretical Model Psychologist James Prochaska and his colleagues, by tracking what they considered to be universal stages in the successful recovery of drug addicts and alcoholics, developed a way of thinking about change that cuts across psychological theories. Their **transtheoretical model** focuses on universal aspects of an individual's decision-making process rather than on social or biological influences on behavior.

The transtheoretical model has become the foundation of programs for smoking cessation, exercise, healthy food choices, alcohol cessation, weight control, condom use, drug use cessation, mammography screening, and stress management. Recent studies have demonstrated that it is more effective in encouraging weight loss than physical activity.⁴⁵

The following sections describe these key components of the transtheoretical model:

- **Stages of change**—a sequence of stages to make a change.
- **Processes of change**—cognitive and behavioral activities that facilitate change.
- **Self-efficacy and locus of control**—the confidence people have in their ability to cope with challenge.

The Stages of Change. According to the transtheoretical model of change, individuals progress through a sequence of stages as they make a change (Figure 1.2). No one stage is more important than another, and people often move back and forth between them. Most people “spiral” from stage to stage, slipping from maintenance to contemplation or from action to precontemplation, before moving forward again.

People usually cycle and recycle through the stages several times. Smokers, for instance, report making three or four serious efforts to quit before they succeed.

The six stages of change are as follows:

1. **Precontemplation.** You are at this stage if you, as yet, have no intention of making a change. You are vaguely uncomfortable, but

transtheoretical model A model of behavioral change that focuses on the individual's decision making; it states that an individual progresses through a sequence of six stages as he or she makes a change in behavior.

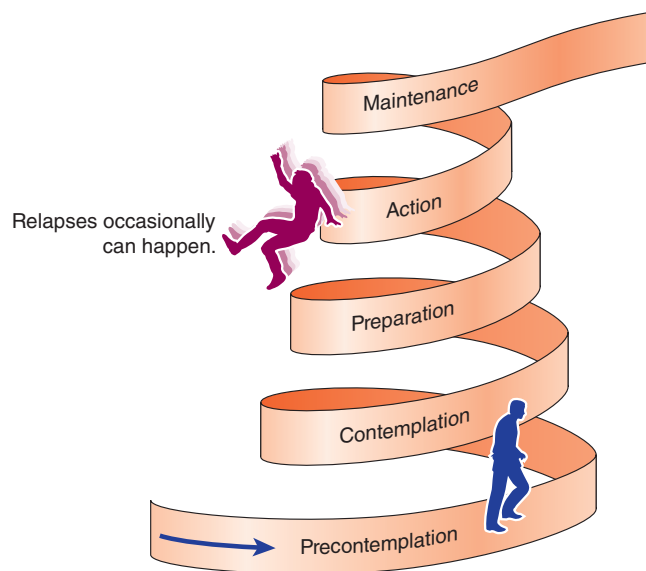


FIGURE 1.2 The Stages of Change

this is where your grasp of what is going on ends. You may never think about exercise, for instance, until you notice that it's harder to zip up your jeans or that you get winded walking up stairs. Still, you don't quite register the need to do anything about it.

During precontemplation, change remains hypothetical, distant, and vague. Yet you may speak of something bugging you and wish that things were somehow different.

2. **Contemplation.** In this stage, you still prefer not to have to change, but you start to realize that you can't avoid reality. Maybe none of your jeans fit anymore, or you feel sluggish and listless. In this stage, you may alternate between wanting to take action and resisting it.

.....
✓**check-in** Are you contemplating change?
.....

You may be if you find yourself thinking

- "I hate it that I keep..."
 - "I should..."
 - "Maybe I'll do it someday—not tomorrow, but someday."
-

3. **Preparation.** At some point, you stop waffling, make a clear decision, and feel a burst of energy. This decision heralds the preparation stage. You gather information, make phone calls, do research online, and look into exercise classes at the gym. You begin to think and act with change specifically in mind. If you were to eavesdrop on what you're saying to yourself, you would hear statements such as, "I am going to do this."
4. **Action.** You are actively modifying your behavior according to your plan. Your resolve is strong, and you know you're on your way to a better you. You may be getting up 15 minutes earlier to make time for a healthy breakfast or to walk to class rather than take the shuttle. In a relatively short time, you acquire a sense of comfort and ease with the change in your life.
5. **Maintenance.** This stabilizing stage, which follows the flurry of specific steps taken in the action stage, is absolutely necessary to retain what you've worked for and to make change permanent. In this stage, you strengthen, enhance, and extend the changes you've initiated. Among college students, those in the maintenance stage of an exercise program display greater self-motivation to

work out and a greater engagement in the experience.⁴⁶

6. **Relapse.** It's not unusual for people to slip backward at any stage. However, a relapse is simply a pause, an opportunity to regroup and regain your footing so you can keep moving forward. After about two to five years, a behavior becomes so deeply ingrained that you can't imagine abandoning it.

Research on college students has shown that attitudes and feelings are related to stages of change. Smokers who believe that continuing to smoke would have only a minor or no impact on their health remain in the precontemplation stage; those with respiratory symptoms move on to contemplation and preparation.

.....
✓**check-in** Do you want to change a health behavior? If so, what stage of change are you in?
.....

The Processes of Change. Anything you do to modify your thinking, feeling, or behavior can be called a *change process*. The processes of change included in the transtheoretical model are as follows:

- **Consciousness-raising.** This most widely used change process involves increasing knowledge about yourself or the nature of your problem. As you learn more, you gain understanding and feedback about your behavior.

Example: Reading Chapter 5 on making healthy food choices.

- **Social liberation.** In this process, you take advantage of alternatives in the external environment that can help you begin or continue your efforts to change.

Example: Spending as much time as possible in nonsmoking areas.

- **Emotional arousal.** This process, also known as dramatic relief, works on a deeper level than consciousness-raising and is equally important in the early stages of change. Emotional arousal means experiencing and expressing feelings about a problem behavior and its potential solutions.

Example: Resolving never to drink and drive after the death of a friend in a car accident.

- **Self-reevaluation.** This process requires a thoughtful reappraisal of your problem,

including an assessment of the person you might be once you have changed the behavior.

Example: Recognizing that you have a gambling problem and imagining yourself as a nongambler.

- **Commitment.** In this process, you acknowledge—first privately and then publicly—that you are responsible for your behavior and the only one who can change it.

Example: Joining a self-help or support group.

- **Rewards.** In this process, you reinforce positive behavioral changes with self-praise or small gifts.

Example: Getting a massage after a month of consistent exercise.

- **Countering.** Countering, or counterconditioning, involves substituting healthy behaviors for unhealthy ones.

Example: Chewing gum rather than smoking.

- **Environmental control.** This is an action-oriented process in which you restructure your environment so you are less likely to engage in a problem behavior.

Example: Getting rid of your stash of sweets.

- **Helping relationships.** In this process, you recruit individuals—family, friends, therapist, coach—to provide support, caring, understanding, and acceptance.

Example: Finding an exercise buddy.

Self-Efficacy and Locus of Control. Do you see yourself as master of your fate, asserting control over your destiny? Or do so many things happen in your life that you just hang on and

hope for the best? The answers to these questions reveal two important characteristics that affect your health: your sense of **self-efficacy** (the belief in your ability to change and to reach a goal) and your **locus of control** (the sense of being in control of your life).

Your confidence in your ability to cope with challenge can determine whether you can and will succeed in making a change. In his research on self-efficacy, psychologist Albert Bandura of Stanford University found that the individuals most likely to reach a goal are those who believe they can. The stronger their faith in themselves, the more energy and persistence they put into making a change. The opposite is also true, especially for health behaviors: Among people who begin an exercise program, those with lower self-efficacy are more likely to drop out.

✓check-in How “internal” or “external” do you rate your locus of control?

If you believe that your actions will make a difference in your health, your locus of control is internal. If you believe that external forces or factors play a greater role, your locus of control is external. Hundreds of studies have compared people who have these different perceptions of control:

- “Internals,” who believe that their actions largely determine what happens to them, act more independently, enjoy better health, are more optimistic about their future, and have lower mortality rates.
- “Externals,” who perceive that chance or outside forces determine their fate, find it harder to cope with stress and feel increasingly helpless over time. When it comes to weight, for instance, they see themselves as destined to be fat. However, social support has proven effective in helping students meet physical activity guidelines, particularly for muscle-strengthening workouts.⁴⁷

self-efficacy Belief in one's ability to accomplish a goal or change a behavior.

locus of control An individual's belief about the sources of power and influence over his or her life.

WHAT DID YOU DECIDE?

- What does “health” mean to you?
- How healthy are today’s college students?
- Do race and gender affect health?
- Can people successfully change their health behaviors?

YOUR LIFE, YOUR FUTURE

Making Healthy Changes

Ultimately, you have more control over your health than anyone else. Use this course as an opportunity to zero in on at least one less-than-healthy behavior and improve it. Here are some suggestions for small steps that can have a big payoff. Check those that you commit to making today, this week, this month, or this term. Indicate “t,” “w,” “m,” or “term,” and repeat this self-evaluation throughout the course.

- ___ **Use seat belts.** In the past decade, seat belts have saved more than 40,000 lives and prevented millions of injuries.
- ___ **Eat an extra fruit or vegetable every day.** Adding more fruits and vegetables to your diet can improve your digestion and lower your risk of several cancers.
- ___ **Get enough sleep.** A good night’s rest provides the energy you need to make it through the following day.
- ___ **Take regular stress breaks.** A few quiet minutes spent stretching, looking out the window, or simply letting yourself unwind are good for body and soul.

- ___ **Lose a pound.** If you’re overweight, you may not think a pound will make a difference, but it’s a step in the right direction.
- ___ **If you’re a woman, examine your breasts regularly.** Get in the habit of performing a breast self-examination every month after your period (when breasts are least swollen or tender).
- ___ **If you’re a man, examine your testicles regularly.** These simple self-exams can help you spot signs of cancer early, when it is most likely to be cured.
- ___ **Get physical.** Just a little exercise will do some good. A regular workout schedule will be good for your heart, lungs, muscles, and bones—even your mood.
- ___ **Drink more water.** You need eight glasses a day to replenish lost fluids, prevent constipation, and keep your digestive system working efficiently.
- ___ **Do a good deed.** Caring for others is a wonderful way to care for your own soul and connect with others.

What's Online



Visit www.cengagebrain.com to access MindTap, a complete digital course that includes Diet & Wellness Plus, interactive quizzes, online versions of the self-surveys, videos, and more.

SELF-SURVEY

Are You in Control of Your Health?

To test whether you are the master of your fate, asserting control over your destiny, or just hanging on, hoping for the best, take the following test. Depending on which statement you agree with, check either (a) or (b).

- Many of the unhappy things in people’s lives are partly due to bad luck. _____
 - People’s misfortunes result from mistakes they make. _____
- One of the major reasons why we have wars is that people don’t take enough interest in politics. _____
 - There will always be wars, no matter how hard people try to prevent them. _____
- In the long run, people get the respect they deserve in this world. _____
 - Unfortunately, an individual’s worth often passes unrecognized no matter how hard he or she tries. _____

4. a. The idea that teachers are unfair to students is non-sense. _____
b. Most students don't realize the extent to which their grades are influenced by accidental happenings. _____
5. a. Without the right breaks, one cannot be an effective leader. _____
b. Capable people who fail to become leaders have not taken advantage of their opportunities. _____
6. a. No matter how hard you try, some people just don't like you. _____
b. People who can't get others to like them don't understand how to get along with others. _____
7. a. I have often found that what is going to happen will happen. _____
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. _____
8. a. In the case of the well-prepared student, there is rarely, if ever, such a thing as an unfair test. _____
b. Oftentimes exam questions tend to be so unrelated to course work that studying is really useless. _____
9. a. Becoming a success is a matter of hard work; luck has little or nothing to do with it. _____
b. Getting a good job depends mainly on being in the right place at the right time. _____
10. a. The average citizen can have influence in government decisions. _____
b. This world is run by the few people in power, and there is not much the little guy can do about it. _____
11. a. When I make plans, I am almost certain that I can make them work. _____
b. It is not always wise to plan too far ahead because many things turn out to be a matter of luck anyway. _____
12. a. In my case, getting what I want has little or nothing to do with luck. _____
b. Oftentimes we might just as well decide what to do by flipping a coin. _____
13. a. What happens to me is my own doing. _____
b. Sometimes I feel that I don't have enough control over the direction my life is taking. _____

Scoring

Give yourself 1 point for each of the following answers:

1a, 2b, 3b, 4b, 5a, 6a, 7a, 8b, 9b, 10b, 11b, 12b, 13b

You do not get any points for other choices.

Add up the totals. Scores can range from 0 to 13. A high score indicates an external locus of control, the belief that forces outside yourself control your destiny. A low score indicates an internal locus of control, a belief in your ability to take charge of your life.

Source: Based on J.B. Rotter, "Generalized Expectancies for Internal versus External Control of Reinforcement," *Psychological Monographs*, Vol. 80, Whole No. 609 (1966).

If you turned out to be external on this self-assessment quiz, don't accept your current score as a given for life. If you want

to shift your perspective, you can. People are not internal or external in every situation. At home you may go along with your parents' or roommates' preferences and let them call the shots. In class you might feel confident and participate without hesitation.

Take inventory of the situations in which you feel most and least in control. Are you bold on the basketball court but hesitant on a date? Do you feel confident that you can resolve a dispute with your friends but throw up your hands when a landlord refuses to refund your security deposit? Look for ways to exert more influence in situations in which you once yielded to external influences. See what a difference you can make.

REVIEW QUESTIONS

- (LO 1.1) 1. The World Health Organization defines *health* as _____
- access to appropriate medicines.
 - the absence of disease or infirmity.
 - whatever brings personal satisfaction.
 - a state of complete physical, mental, and social well-being.
- (LO 1.2) 2. Learning from life experience and the capacity to question and evaluate information requires _____ health.
- psychological
 - intellectual
 - social
 - spiritual
- (LO 1.3) 3. Which age group of Americans experiences the greatest health deficits?
- children
 - teenagers
 - young adults
 - the elderly
- (LO 1.4) 4. Which of the following statements is true of the health differences between men and women?
- The overall mortality rate of women is higher than that of men.
 - Girls are more likely to be born prematurely than boys.
 - Women die at a younger age than men.
 - Women are more likely to suffer from depression than men.
- (LO 1.5) 5. Which of the following is one of the health issues that college students in particular experience?
- obesity
 - a high-fat diet
 - mental disorders
 - respiratory illnesses
- (LO 1.6) 6. Which of the following statements is true about the impact of unhealthy choices on young Americans?
- Obese children often grow into obese adults, with risks of diabetes and cardiovascular disease.
 - A mild rise in blood pressure during young adulthood does not increase the risk of clogged heart arteries by middle age.
 - Young adults who begin using tobacco or alcohol in their teens and 20s are less likely to continue to do so as they get older.
 - Aerobic fitness has little impact on the cardiovascular health of individuals in later years.
- (LO 1.7) 7. Factors that influence health behavior that include knowledge, attitudes, beliefs, values, and perceptions are _____ factors.
- enabling
 - risk
 - reinforcing
 - predisposing
- (LO 1.8) 8. According to which theory or model of personal change do people take a health-related action if they feel susceptible to a possible negative consequence?
- Moral
 - Behavioral
 - Compensatory
 - Health belief

Answers to these questions can be found on page 577.



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WHAT DO YOU THINK?

- How would you define emotional and mental health?
- What are the keys to a happy, satisfying, meaningful life?
- Does spirituality affect health?
- How important is a good night's sleep?

After reading this chapter, you should be able to:

- | | |
|---|---|
| 2.1 Identify the characteristics of emotionally and mentally healthy individuals. | 2.3 Describe the roles of autonomy and self-assertion in boosting self control. |
| 2.2 Summarize the components of positive psychology that can lead to a happy and purposeful life. | 2.4 Discuss the impact of spirituality on individuals. |
| | 2.5 Review the relationship of sleep and health. |

Psychological and Spiritual Well-Being

Chris never considered himself a spiritual person until he enrolled in a class on the science of personal well-being. For a homework assignment, he had to pursue different paths to happiness. As part of his experiment, he went to a Mardi Gras celebration and partied all night to see if having fun made him happier. To test whether doing good makes a person happy, Chris volunteered to help build a house for a homeless family. “I can’t remember the name of a single person I met at the party,” he says. “But I’ll never forget the look on the family’s faces when we handed them the keys to their new home.”

The quest for a more fulfilling and meaningful life is attracting more people of all ages. The reason? As the burgeoning field of positive psychology has resoundingly proved, people who achieve emotional and spiritual health are more creative and productive, earn more money, attract more friends, enjoy

better marriages, develop fewer illnesses, and live longer.

This chapter reports the latest findings on making the most of psychological strengths, enhancing happiness, and developing the spiritual dimension of your health and your life. <

Emotional and Mental Health

“A sound mind in a sound body” was, according to the ancient Roman poet Juvenal, something all should strive for. This timeless advice still holds. Almost 2,000 years later, we understand on a much more scientific level that physical and mental health

are interconnected in complex and vital ways. One does not guarantee the other, but recent research has found that individuals whose lifestyles include the following four fundamental behaviors are less likely to become depressed, be overwhelmed by stress, or suffer poor mental health:

- Regular exercise
- A healthful diet
- Moderate alcohol use
- No tobacco

✓**check-in** Do you practice these four key behaviors?

Unlike physical health, psychological well-being cannot be measured, tested, X-rayed, or dissected. Yet psychologically healthy men and women generally share certain characteristics:

- They value themselves and strive toward happiness and fulfillment.
- They establish and maintain close relationships with others.
- They accept the limitations as well as the possibilities that life has to offer.
- They feel a sense of meaning and purpose that makes the gestures of living worth the effort required.

✓**check-in** How many of these characteristics do you have?

Psychological health encompasses both our emotional and mental states—that is, our feelings and our thoughts. **Emotional health** generally refers to feelings and moods, both of which are discussed later in this chapter. Characteristics of emotionally healthy persons include the following:

- Determination and effort to be healthy.
- Flexibility and adaptability to a variety of circumstances.
- Development of a sense of meaning and affirmation of life.
- An understanding that the self is not the center of the universe.
- Compassion for others.
- The ability to be unselfish in serving or relating to others.
- Increased depth and satisfaction in intimate relationships.
- A sense of control over the mind and body that enables the person to make health-enhancing choices and decisions.

Mental health describes our ability to perceive reality as it is, to respond to its challenges, and to develop rational strategies for living. A mentally healthy person doesn't try to avoid conflicts and distress but can cope with life's transitions, traumas, and losses in a way that allows for emotional stability and growth. The characteristics of mental health include:

- The ability to function and carry out responsibilities.

- The ability to form relationships.
- Realistic perceptions of the motivations of others.
- Rational, logical thought processes.
- The ability to adapt to change and to cope with adversity.

✓**check-in** How would you assess yourself on each of these characteristics?

Culture also helps to define psychological health. In one culture, men and women may express feelings with great intensity, shouting in joy or wailing in grief, while in another culture, such behavior might be considered abnormal or unhealthy. In our diverse society, many cultural influences affect Americans' sense of who they are, where they came from, and what they believe. Cultural rituals help bring people together, strengthen their bonds, reinforce the values and beliefs they share, and provide a sense of belonging, meaning, and purpose.

To find out where you are on the psychological well-being scale, take the Self-Survey: How Satisfied Are You with Your Life?

The Lessons of Positive Psychology

Positive psychology (the scientific study of ordinary human strengths and virtues) and positive psychiatry (which promotes positive psychosocial development in those with or at high risk of mental or physical illness) focus on the aspects of human experience that lead to happiness and fulfillment—in other words, on what makes life worthwhile.¹ This perspective has expanded the definition of psychological well-being.

According to psychologist Martin Seligman, PhD, who popularized the positive psychology movement, everyone, regardless of genes or fate, can achieve a happy, gratifying, meaningful life. The goal is not simply to feel good momentarily or to avoid bad experiences but to build positive strengths and virtues that enable us to find meaning and purpose in life. The core philosophy is to add a “build what's strong” approach to the “fix what's wrong” focus of traditional psychotherapy.²

emotional health The ability to express and acknowledge one's feelings and moods and exhibit adaptability and compassion for others.

mental health The ability to perceive reality as it is, respond to its challenges, and develop rational strategies for living.

culture The set of shared attitudes, values, goals, and practices of a group that are internalized by an individual within the group.

Among the positive psychology interventions that have proven effective in enhancing emotional, cognitive, and physical well-being; easing depression; lessening disease and disability; and even increasing longevity are:

- Counting one's blessings.
- Savoring experiences.
- Practicing kindness.
- Pursuing meaning.
- Setting personal goals.
- Expressing gratitude.
- Building compassion for one's self and others.
- Identifying and using one's strengths (which may include traits such as kindness or perseverance).
- Visualizing and writing about one's best possible self at a time in the future.³

Neuroscientists, using sophisticated imaging techniques, have been able to identify specific areas in the brain associated with positive emotions, such as love, hope, and enthusiasm. As people age, the processing of emotions in the brain appears to change, with older adults responding more to positive information and filtering out irrelevant negative stimuli.

✓check-in Practice positive psychology:

- The next time you think, "I've never tried that before," also say to yourself, "This is an opportunity to learn something new."
- When something seems too complicated, remind yourself to tackle it from another angle.
- If you get discouraged and feel that you're never going to get better at some new skill, tell yourself to give it another try. (See [Health Now!](#) for more suggestions.)

Boost Self-Esteem

Each of us wants and needs to feel significant as a human being with unique talents, abilities, and roles in life. A sense of **self-esteem**, of belief or pride in ourselves, gives us confidence to dare to attempt to achieve at school or work, and to reach out to others to form friendships and close relationships. Self-esteem is the little voice that whispers, "You're worth it. You can do it. You're okay."

Self-esteem is based not on external factors like wealth or beauty but on what you believe about yourself. It's not something you're born



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Compassion, or caring about others, is a characteristic of an emotionally healthy person.

with; self-esteem develops over time. It's also not something anyone else can give to you, although those around you can either help boost or diminish your self-esteem.

The seeds of self-esteem are planted in childhood when parents provide the assurance and appreciation youngsters need to push themselves toward new accomplishments: crawling, walking, forming words and sentences, learning control over their bladder and bowels.

Adults, too, must consider themselves worthy of love, friendship, and success if they are to be loved, to make friends, and to achieve their goals. Low self-esteem is more common in people who have been abused as children and in those with psychiatric disorders, including depression, anxiety, alcoholism, and drug dependence.

One of the most useful techniques for bolstering self-esteem and achieving your goals is developing the habit of positive thinking and talking. While negative observations—such as constant criticisms or reminders of the most minor faults—can undermine self-image, positive affirmations—compliments, kudos, encouragements—have proved effective in enhancing self-esteem and psychological well-being. Individuals who fight off negative thoughts fare better psychologically than those who collapse when a setback occurs or who rely on others to make them feel better.

Develop Self-Compassion

Self-compassion is a healthy form of self-acceptance and a way of conceptualizing our favorable and unfavorable attitudes about ourselves and others. Some psychologists describe it as being kind to yourself in the face of suffering and

self-esteem Confidence and satisfaction in oneself.

self-compassion A healthy form of self-acceptance in the face of perceived inadequacy or failure.

HEALTH NOW!

Count Your Blessings

Gratitude has proven as effective in brightening mood and boosting energy as the standard, well-studied techniques used in psychotherapy. Following are some simple steps to cultivate and express gratitude.

- Every day, write down 10 new things for which you are grateful. You can start with this list and keep adding to it: your bed, your cell phone and every person whose efforts led to its development, every road you take, loyalty, your toothbrush, your toes, the sky, ice cream, etc.
- Record the ways you express gratitude. How do you feel when doing so?
- Create a daily practice of appreciation. This may be as simple as saying a few words of thanks before each meal (if only to yourself) or writing down your feelings of gratitude.
- Make a list of 10 people—teachers, coaches, neighbors, and relatives—to whom you owe a debt of gratitude. Write a one- to two-page letter to each of them, stating your appreciation of what he or she has contributed to you and your well-being. You do not have to send the letters. What is important is that you focus deeply on the contribution of each person and allow feelings of gratitude to come as they may.

emotional intelligence The ability to monitor and use emotions to guide thinking and actions.

self-actualization A state of wellness and fulfillment that can be achieved once certain human needs are satisfied; living to one's full potential.

practicing a “reciprocal golden rule,” in which you treat yourself with the kindness usually reserved for others.

Individuals high in self-compassion tend to:

- Be understanding toward themselves when they make mistakes.
- Recognize that all humans are imperfect.
- Not ruminate about their errors in judgment or behavior.
- When feeling inadequate, engage in soothing and positive self-talk.
- Not exaggerate the significance of painful thoughts (though they're mindful of them).
- Manage frustration by quelling self-pity and melodrama.
- Accept their flaws.
- Let go of regrets, illusions, and disappointments.
- Seek psychological help when needed.⁴
- Take responsibility for actions that may have harmed others without feeling a need to punish oneself.⁵

In contrast, individuals low in self-compassion are extremely critical of themselves, believe they are unique in their imperfection, and obsessively fixate on their mistakes.

After a traumatic life event, self-compassion may help individuals recognize the need to care for themselves, reach out for social support, engage in less self-blame and self-criticism, and look back on the time as an emotionally difficult event rather than an experience that defines or changes them.⁶ Therapists have developed specific cognitive treatments that can increase the attributes of compassion for self and others, and alleviate feelings of anxiety and depression.

✓**check-in** How do you practice self-compassion?

Boost Emotional Intelligence

A person's intelligence quotient (IQ) was once considered the leading predictor of achievement. However, psychologists have determined that another “way of knowing,” dubbed **emotional intelligence**, makes an even greater difference in personal and professional success.

Emotional quotient (EQ) is the ability to monitor and use emotions to guide thinking and actions. Neuroscientists have mapped the brain regions involved in emotional intelligence, which overlap significantly with those involved in general intelligence. Among the emotional

competencies that most benefit students are focusing on clear, manageable goals and identifying and understanding emotions rather than relying on “gut” feelings.

✓**check-in** How emotionally intelligent do you think you are?

People with high EQ are more likely to enjoy good mental and physical health, and are more productive at work and happier at home. They're also less prone to stress, depression, and anxiety, and they bounce back more quickly from serious illnesses.

Meet Your Needs

Newborns are unable to survive on their own. They depend on others for the satisfaction of their physical needs for food, shelter, warmth, and protection, as well as their less tangible emotional needs. In growing to maturity, children take on more responsibility and become more independent.

No one, however, becomes totally self-sufficient. As adults, we easily recognize our basic physical needs, but we often fail to acknowledge our emotional needs. Yet they, too, must be met if we are to be as fulfilled as possible.

Humanist theorist Abraham Maslow believed that human needs are the motivating factors in personality development. First, we must satisfy basic physiological needs, such as those for food, shelter, and sleep. Only then can we pursue fulfillment of our higher needs—for safety and security, love and affection, and self-esteem. Few individuals reach the state of **self-actualization**, in which they function at the highest possible level and derive the greatest possible satisfaction from life (Figure 2.1).

Pursue Happiness

“Imagine a drug that causes you to live eight or nine years longer, to make \$15,000 more a year, to be less likely to get divorced,” says Martin Seligman, the “father” of positive psychology. “Happiness seems to be that drug.” As a meta-analysis of long-term studies has shown, happiness even reduces the risk of dying—both in healthy people and in those with diagnosed diseases. But even if just about everyone might benefit from smiling more and scowling less, can almost anyone learn to live on the brighter side of life?

Skeptics who dismiss “happichondria” as the latest feel-good fad are dubious. However, happiness researchers, backed by thousands of

scientific studies, cite mounting evidence suggesting that happiness is, to a significant degree, something anyone can nurture. (See Health on a Budget.) Among 5,000 students in 280 countries who completed a massive online open course (MOOC) on happiness, positive feelings kept going up as the course progressed. The students registered progressively less sadness, anger, and increasing fear and more amusement, enthusiasm, and affection.⁷

The Roots of Happiness Psychological research has identified several factors that contribute to a sense of well-being:

- Your happiness set point—a genetic component that contributes about 50 percent to individual differences in contentment.
- Life circumstances such as income or marital status, which account for about 10 percent.
- Thoughts, behaviors, beliefs, and goal-based activities, which may account for up to 40 percent of individual variations.⁸

Education may protect against mental disorders, but it doesn't guarantee happiness. Asked if they were "feeling good and functioning well," people with varying levels of education had similar odds of high levels of emotional well-being.⁹ As studies with apps to monitor activity have shown, individuals who are more physically active are happier in general—and feel even happier when they are physically active.¹⁰

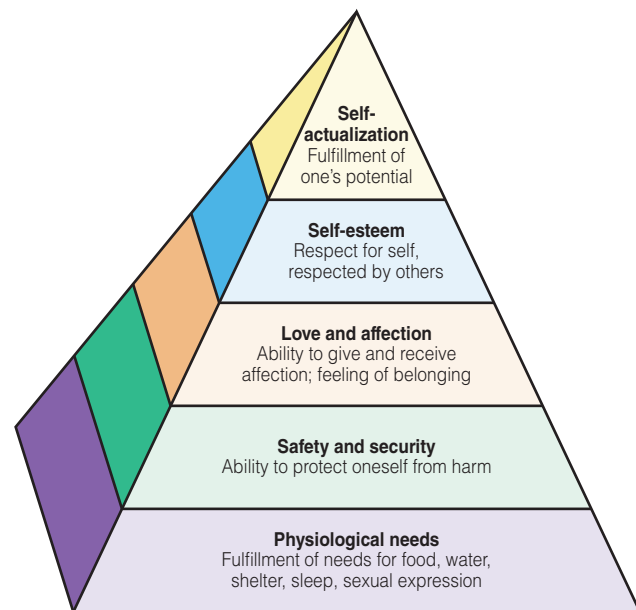


FIGURE 2.1 The Maslow Pyramid

To attain the highest level of psychological health, you must first satisfy your needs for safety and security, love and affection, and self-esteem.

Source: Maslow, Abraham H., Frager, Robert D., Fadiman, James, *Motivation and Personality*, 3rd Edition, © 1987. Reprinted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

Intelligence, gender, and race do not matter much for happiness, although gender equality does.¹¹ Health has a greater impact on happiness than income, but pain and anxiety take an even greater toll. People seem to be less able to adapt to the unpredictability of certain health conditions

\$ HEALTH ON A BUDGET

Happiness for Free!

Money can't buy happiness. As long as you have enough money to cover the basics, you don't need more wealth or more possessions for greater joy. Even people who win a fortune in a lottery return to their baseline of happiness within months. So rather than spend money on lottery tickets, try these ways to put a smile on your face:

- **Make time for yourself.** It's impossible to meet the needs of others without recognizing and fulfilling your own.
- **Boost your appreciation quotient.** Regularly take stock of all the things for which you are grateful. To deepen the impact, write a letter of gratitude to someone who's helped you along the way.
- **String beads.** Think of every positive experience during the day as a bead on a necklace. This simple exercise focuses you on positive experiences, such as a cheery greeting from a cashier or a funny e-mail from a friend, and encourages you to act more kindly toward others.
- **Create a virtual DVD.** Visualize several of your happiest memories in as much detail as possible. Smell the air. Feel the sun. Hear the sea. Play this video in your mind when your spirits slump.
- **Fortify optimism.** Whenever possible, see the glass as half-full. Keep track of what's going right in your life. Imagine and write down your vision for your best possible future and track your progress toward it.
- **Immerse yourself.** Find activities that delight and engage you so much that you lose track of time. Experiment with creative outlets. Look for ways to build these passions into your life.
- **Seize the moment.** Rather than wait to celebrate big birthday-cake moments, savor a bite of cupcake every day. Delight in a child's cuddle, a glorious sunset, a lively conversation. Cry at the movies. Cheer at football games. This life is your gift to yourself. Open it!



Positive activities, such as reading to children, can enhance happiness and self-esteem..

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- Focusing on time leads to greater happiness than focusing on money
- Spending time and money on others rather than oneself increases happiness.
- Spending time and money to acquire experiences rather than possessions boosts happiness.¹⁴
- Moral judgments influence self-assessments of happiness.¹⁵ Simply put, doing good makes us feel good.
- Having a happy partner may enhance health as much as striving to being happy oneself.¹⁶

Positive activities also boost positive emotions like happiness. One of the most effective is performing small acts of kindness. While there is no set formula for their variety and frequency, Lyubomirsky advises a minimum of once a week, which provides as much a boost as a thrice-weekly activity. She also recommends variety—taking out the trash when it's your roommate's turn one time, for instance, and buying a hot chocolate for a homeless person the next—because simple repetitions lose their ability to boost happiness.

✓**check-in** What are the greatest sources of happiness in your life?

than they are to others. The well-being of individuals who can no longer walk after an accident, for example, typically returns to its pre-accident levels, while many diagnosed with epilepsy face a lifetime of uncertainty about the occurrence of seizures.

What Does and Doesn't Make Us Happy

Many people assume that they can't be happy unless they get into a certain school, earn a certain grade, get a certain job, make a certain income, find a perfect mate, or look a certain way. But according to psychologist Sonja Lyubomirsky, author of *The Myths of Happiness*, such notions are false. "People find a way to be happy in spite of unwanted life circumstances," she notes, "and many people who are blessed by wealth and good fortune aren't any happier than those who lack these fortunes."¹² Individuals with enough cash in their checking and savings accounts so they don't have to worry about money report more positive perceptions of their financial well-being and overall life satisfaction, but more money doesn't bring more joy.¹³

What does make us happier? According to recent research:

Become Optimistic

Mental health professionals define **optimism** as the "extent to which individuals expect favorable outcomes to occur." Studies have established "significant relationships" between optimism and cardiovascular health, recovery from heart attack,¹⁷ stroke risk, immune function, cancer prognoses, physical symptoms, pain, and mortality rates.¹⁸ As a recent review concluded, "individuals with greater optimism and hope seek to engage in healthier behaviors"—which can protect from disease and aid in recovery.¹⁹

For various reasons—because they believe in themselves, because they trust in a higher power, because they feel lucky—optimists expect positive experiences from life. When bad things happen, they tend to see setbacks or losses as specific, temporary incidents, which fortifies their resilience.²⁰ In their eyes, a disappointment is "one of those things" that happens every once in a while rather than the latest in a long string of disasters. Even when depressed, individuals able to envision a brighter future are more optimistic and regain optimism more quickly over time.²¹

In terms of health, optimists not only expect good outcomes—for instance, that a surgery will

optimism The tendency to seek out, remember, and expect pleasurable experiences.

be successful—but take steps to increase this likelihood. Pessimists, expecting the worst, are more likely to deny or avoid a problem, sometimes through drinking or other destructive behaviors. In a longitudinal study of more than 70,000 women, those who ranked highest in optimism were at much lower risk of dying of cancer, heart disease, stroke, infection, respiratory disease, or other causes than those who ranked the lowest.²²

Individuals aren't born optimistic or pessimistic. Researchers have documented changes over time in the ways that individuals view the world and what they expect to experience in the future.²³ Cognitive-behavioral techniques (discussed later in this chapter) have proven effective in helping pessimists become more positive.

✓check-in Do you usually anticipate the best or the worst possible outcome?

Manage Your Moods

Feelings come and go within minutes. A **mood** is a more sustained emotional state that colors our view of the world for hours or days. Most people experience a range of moods but respond to them differently. When struggling with a bad mood, men typically try to distract themselves (a partially successful strategy) or use alcohol or drugs (an ineffective tactic). Women are more likely to talk to someone (which can help) or to ruminate on why they feel bad (which doesn't help).

The most effective way to banish a sad or bad mood is by changing what caused it in the first place—if you can figure out what made you upset and why. The questions to ask are: What can I do to fix the failure? What can I do to remedy the loss? Is there anything under my control that I can change? If there is, take action and solve it. Ask to take a makeup exam. Apologize to the friend whose feelings you hurt. Tell your parents you feel bad about the argument you had. If there's nothing you can do, accept what happened and focus on doing things differently next time. "In our studies, resolving to try harder actually was as effective in improving mood as taking action in the present," says Larsen.

Learning effective mood-boosting, mood-regulating strategies can help both men and women pull themselves up and out of an emotional slump. You also can try to think about what happened in a different way and put a positive spin on it. This technique, known as *cognitive reappraisal*, or *reframing*, helps you look at a setback in a new light: What lessons did it teach you? What would you have done differently? Could there be a silver lining or hidden benefit?

✓check-in Track your moods



Fear



Enthusiasm



Anger



Affection



Sadness



Amusement

Every day, rate how much each emoji matches how you have been feeling on a scale of 1 to 10. At the end of the week, average your daily ratings into a collective score. Track how your feelings change throughout the term.

Take Control

Although no one has absolute control over destiny, we can do a great deal to control how we think, feel, and behave. By assessing our life situations realistically, we can make plans and preparations that allow us to make the most of our circumstances. By doing so, we gain a sense of mastery.

In nationwide surveys, Americans who feel in control of their lives report greater psychological well-being than those who do not, as well as extraordinarily positive feelings of happiness. One way to boost self-control is with a short bout of moderately intense exercise. An aerobic workout, such as a half-hour run or bike ride, improves "executive" brain functions, such as self-control.

Develop Autonomy

One goal that many people strive for is **autonomy**, or independence. Both family and society influence our ability to grow toward independence. Autonomous individuals are true to themselves. As they weigh the pros and cons of any decision, whether it's using or refusing drugs or choosing a major or career, they base their judgment on their own values, not those of others. Their ability to draw on internal resources and cope with challenges has a positive impact on both their psychological well-being and their physical health, including recovery from illness.

Those who've achieved autonomy may seek the opinions of others, but they do not allow their decisions to be dictated by external influences. For autonomous individuals, their locus of control—that is, where they view control

autonomy The ability to draw on internal resources; independence from familial and societal influences.

as originating—is *internal* (from within themselves) rather than *external* (from others). (See Chapter 1).

Autonomy also contributes to a sense of personal mastery, the tendency to feel that life circumstances are under one's control. A sense of mastery reflects general expectations about an individual's coping resources rather than confidence in performing specific behaviors. Closely related to self-efficacy and an internal locus of control, mastery is associated with better cardiometabolic health and reduced risk for disease or death.

Assert Yourself

Being assertive means recognizing your feelings and making your needs and desires clear to others. Unlike aggression, a far less healthy means of expression, assertiveness usually works. You can change a situation you don't like by communicating your feelings and thoughts in non-provocative words, by focusing on specifics, and by making sure you're talking with the person who is directly responsible.

Becoming assertive isn't always easy. Many people have learned to cope by being passive and not communicating their feelings or opinions. Sooner or later they become so irritated, frustrated, or overwhelmed that they explode in an outburst—which they think of as being assertive. However, such behavior is so distasteful to them that they'd rather be passive. But assertiveness doesn't mean screaming or telling someone off. You can communicate your wishes calmly and clearly. Assertiveness is a behavior that respects your rights and the rights of other people even when you disagree.

Even at its mildest, assertiveness can make you feel better about yourself and your life. The reason: When you speak up or take action, you're in the driver's seat. And that's always much less stressful than taking a backseat and trying to hang on for dear life.

✓**check-in** When was the last time you asserted yourself? When was the last time you wished you had?

to learn and question. And you have a spirit that animates everything you say and do. **Spiritual health** refers to this breath of life and to our ability to identify our basic purpose in life and experience the fulfillment of achieving our full potential. Spiritual readings or practices can increase calmness, inner strength, and meaning; improve self-awareness; and enhance your sense of well-being. Religious support has also been shown to help lower depression and increase life satisfaction beyond the benefits of social support from friends and family.

Spirituality is a belief in what some call a higher power, in someone or something that transcends the boundaries of self. It gives rise to a strong sense of purpose, values, morals, and ethics. Throughout life you make choices and decide to behave in one way rather than another because your spirituality serves as both a compass and a guide.

The terms *religiosity* and *religiousness* refer to various spiritual practices. That definition may seem vague, but one thing is clear. According to thousands of studies on the relationship between religious beliefs and practices and health, religious individuals are less depressed, less anxious, and better able to cope with crises such as illness or divorce than are nonreligious ones. It doesn't matter if your beliefs are Christian, Jewish, Muslim, Buddhist, or any other religion. The more that believers incorporate spiritual practices—such as prayer, meditation, or attending services—into daily life, the less likely they are to experience symptoms of mental disorders, anxiety, and stress.²⁴

✓**check-in** How would you describe your spiritual self?

Spirituality and Physical Health

A growing body of scientific evidence indicates that faith and spirituality can enhance health—and perhaps even extend life. Individuals²⁵ who pray and experience spiritual well-being consistently describe themselves as enjoying greater psychological and overall well-being. Various studies have found that religiosity reduces alcohol use disorders,²⁶ binge drinking,²⁷ vulnerability to eating disorders, and symptoms of depression. Among Latino men and women, those who are more spiritual are also significantly less sedentary—an important boost for good health.²⁸

Church attendance may account for an additional 2 to 3 years of life (by comparison, exercise may add 3 to 5 extra years), according to researchers' calculations. The reason may be the

spiritual health The ability to identify one's basic purpose in life and to achieve one's full potential.

spirituality A belief in someone or something that transcends the boundaries of self.

Spiritual Health

Whatever your faith, whether or not you belong to any formal religion, you are more than a body of a certain height and weight occupying space on the planet. You have a mind that equips you