

A WELLNESS WAY of LIFE

eleventh edition



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Education

**GWEN ROBBINS
DEBBIE POWERS
SHARON BURGESS**

A WELLNESS WAY OF LIFE

Eleventh Edition

GWEN ROBBINS / DEBBIE POWERS / SHARON BURGESS

Ball State University



Mc
Graw
Hill
Education



A WELLNESS WAY OF LIFE, ELEVENTH EDITION

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PREFACE


CONNECT IS PROVEN EFFECTIVE.

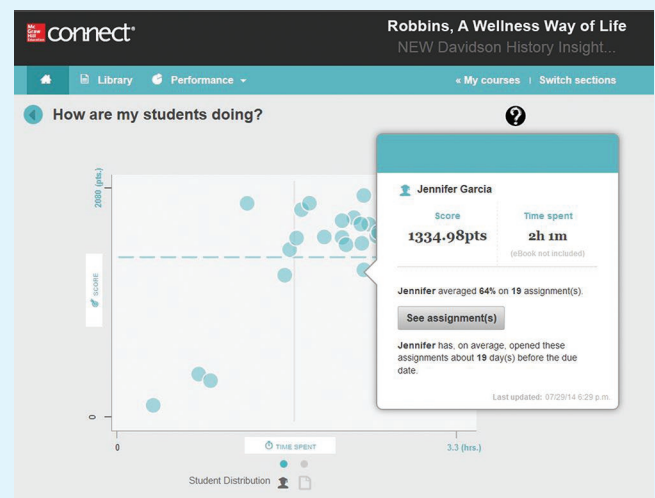
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HIGHLIGHTS OF THE ELEVENTH EDITION

EMPOWERING STUDENTS TO MAKE SMART HEALTH DECISIONS

A Wellness Way of Life helps student readers make sense of the array of confusing and sometimes contradictory health information that bombards the public every day. By minimizing technical jargon and presenting health topics and issues in a clear and accessible way, *A Wellness Way of Life* informs students about the science of wellness as it pertains to topics such as exercise, nutrition, weight management, stress, and heart disease, and it empowers them to make smart health decisions in order to enjoy a lifetime of wellness. Grounded in solid, up-to-date research, *A Wellness Way of Life* utilizes innovative technologies to engage and motivate students to take their health seriously and make healthy lifestyle behavior choices.

The new edition offers coverage of the following topics to cite just a few: the latest findings on the benefits of exercise, including the dangers of prolonged sitting, the new 2015–2020 *Dietary Guidelines for Americans*, an updated discussion on how to improve the quality of one’s sleep, a new discussion on the safety of smokeless e-cigarettes, updated information on health care costs, and new information on climate change and environmental issues. In addition, there are new and revised lab activities and new examples throughout of smartphone apps for tracking fitness and wellness behaviors.

WHAT’S NEW IN EACH CHAPTER?

Changes to the Eleventh Edition reflect new research findings, updated statistics, and current topics and issues.

Chapter 1: Understanding Wellness

- ✓ Updated information on the leading causes of death and on healthy life expectancy
- ✓ Financial dimension added as an eighth dimension of wellness
- ✓ Updated Diversity Issues box

Chapter 2: Changing Behavior

- ✓ New and updated information on how to be successful in making behavior changes

- ✓ Revised S.M.A.R.T. goal-setting acronym
- ✓ Revised Lab Activities
- ✓ Frequently Asked Questions include information on smartphone apps for charting and tracking habits

Chapter 3: Developing and Assessing Physical Fitness

- ✓ Updated statistics on physical activity, obesity, and health in the American population
- ✓ Summary of current research from large-scale studies about how much exercise is the right amount for health and longevity
- ✓ Current research findings on the dangers of a sedentary lifestyle
- ✓ New “Top 10” list: Ways to Exercise with Minimal Equipment
- ✓ “Balance” added as a principle of fitness development
- ✓ Updated smartphone apps for fitness in Frequently Asked Questions

Chapter 4: Maximizing Cardiorespiratory Fitness

- ✓ Revised and simplified Physical Activity Guidelines for Americans
- ✓ New “Think About It” box about wearable high-tech fitness devices (e.g., FitBit)
- ✓ Increased emphasis on “exercise is medicine”
- ✓ Revised and simplified heart rate calculations
- ✓ New Figure 4-1 depicting the physiological benefits of aerobic exercise
- ✓ Frequently Asked Questions include information on fitness apps, calculating your fitness age, latest worldwide fitness trends (HIIT/bodyweight exercise: 7-minute workout, CrossFit)
- ✓ Revised Lab Activity 4-2 to include step conversion and equivalency charts

Chapter 5: Developing Flexibility

- ✓ Condensed section on “Benefits of Flexibility”
- ✓ Updated smartphone apps for flexibility in Frequently Asked Questions
- ✓ New Lab Activity 5-1: 5-Minute Dynamic Warm-Up Session

- ✓ Illustrations and instructions for “Flexibility Exercises for Basic Fitness” moved to Lab Activity 5-2
- ✓ Illustrations and instructions for “Desk Stretches” moved to Lab Activity 5-3

Chapter 6: Developing Muscular Fitness

- ✓ Weight machine and free weight exercises and descriptions moved to Lab Activity 6-1
- ✓ Abdominal and core strengthening exercises and descriptions moved to Lab Activity 6-2
- ✓ New Lab Activity 6-3: Body Weight Exercises for Hips, Thighs, and Upper Body
- ✓ Illustrations and instructions for stability ball exercises moved to Lab Activity 6-4
- ✓ Illustrations and instructions for elastic resistance exercises moved to Lab Activity 6-5
- ✓ Revised Frequently Asked Questions include mention of new smartphone apps for developing muscular fitness

Chapter 7: Exploring Special Exercise Considerations

- ✓ New information about Alzheimer’s disease and benefits of exercise on longevity and aging
- ✓ New “Think About It”: Americans are wild about their water
- ✓ Updated Online Lab Activity 7-2: Special Exercise Considerations

Chapter 8: Preventing Common Injuries and Caring for the Lower Back

- ✓ Updated information and references on common injuries
- ✓ Exercises for the lower back and instructions moved to Lab Activity 8-2
- ✓ Updated smartphone apps in Frequently Asked Questions

Chapter 9: Maximizing Heart Health

- ✓ New discussion on how to spot a stroke: F. A. S. T.
- ✓ Two new “Think About It” boxes: “Smokers need not apply” and sit/stand & treadmill workstations
- ✓ Expanded discussion of how excessive/prolonged sitting is deadly, and how less sitting lengthens telomeres and increases longevity
- ✓ New Figure 9-6 illustrating e-cigarette and hookah use
- ✓ Frequently Asked Questions include information on heart-healthy apps, e-cigarettes and hookah health issues, AHA’s heart health calculator, and what N.E.A.T. is (non-exercise activity thermogenesis)

Chapter 10: Coping with Stress

- ✓ Entire chapter streamlined for greater student comprehension
- ✓ Reorganized section on Type A B C D behavior provides greater clarity

- ✓ New Table 10-4: Quiz to Identify Your Type A, Angry/Hostile, Hot Reactor Behavior (former table reduced from two sections into one)
- ✓ Significantly revised section on “Improve Your Quality of Sleep”
- ✓ Updated and revised section on “mindfulness meditation”
- ✓ New Lab Activity 10-3 on time management
- ✓ New “Think About It” on sleep aids
- ✓ Frequently Asked Questions include information on stress-reduction apps for smartphones

Chapter 11: Eating for Wellness

- ✓ Coverage of new *2015–2020 Dietary Guidelines for Americans*
- ✓ Expanded information on added sugars
- ✓ New information on the dangers of processed meats
- ✓ Updated information on nutrition labeling of restaurant and fast-food meals

Chapter 12: Achieving a Healthy Weight

- ✓ Updated facts and statistics on overweight and obesity prevalence
- ✓ Updated Diversity Issues box
- ✓ Updated data on the costs of obesity
- ✓ Updated information on diets, dieting, and eating disorders
- ✓ New Lab Activity 12-1: Estimating Your Daily Caloric Need
- ✓ Frequently Asked Questions include information on smartphone apps for tracking calorie intake and expenditure

Chapter 13 Preventing Cancer

- ✓ Updates on cancer incidence and mortality.
- ✓ Updates on cancer trends by race and sex.
- ✓ New cancer screening guidelines for prostate and uterine/cervical cancers.
- ✓ New smartphone app recommendations and FAQ revisions.

Chapter 14: Understanding Substance Abuse and Addictive Behavior

- ✓ Updated statistics on trends in lifetime use of various drugs for ages 18 to 25
- ✓ Updates to the discussion on the science of addiction
- ✓ New coverage of 911 Lifeline Laws .in the section on alcohol poisoning
- ✓ New discussion of the safety of smokeless e-cigarettes
- ✓ New Frequently Asked Questions include information on apps that provide estimates of blood alcohol content

Chapter 15: Preventing Sexually Transmitted Infections

- ✓ Updated information on STIs and references
- ✓ Updated smartphone apps relating to STIs

- ✓ New Figure 15-1 on estimated new cases of HIV infections for ages 13-24.
- ✓ New information on medication for HIV prevention for high-risk individuals and antiretroviral therapy.

Chapter 16: Exploring Lifetime Wellness Issues

- ✓ Expanded information on workplace wellness
- ✓ Updated information on driving safety and distracted driving
- ✓ Revised information on complementary and integrative health practices
- ✓ Updated information on health care costs
- ✓ New information on climate change and environmental issues
- ✓ Updated Lab Activity 16-3: The Environment: “One Man’s Trash...”

OFFERING A VARIETY OF PEDAGOGICAL FEATURES TO INFORM, ENGAGE, AND MOTIVATE STUDENTS

A Wellness Way of Life includes a number of features that facilitate learning, promote critical thinking, and engage students actively in the learning process.

Key Terms

Important terms are highlighted in boldface to capture students’ attention and increase retention.

Top 10

Appearing in each chapter, the Top 10 boxes offer additional insight into chapter topics. Examples include ways to prevent injury during exercise and tips for hosting a safer party.



The Numbers

These boxes showcase thought-provoking statistics of interest to the chapter content.



Diversity Issues

This feature addresses fitness and wellness issues for various cultures and ethnic backgrounds. Sample topics include health disparities among Americans, risk factors for cardiovascular disease, and weight differences in various groups.



Think About It

These boxes stimulate individual critical thinking and can serve as topics for class discussion.



What is Your Stage of Change?

Understand your own state of change with behavior-change flowcharts as you progress through the chapters. *A Wellness Way of Life* is a “how to” program that will help you bridge the gap between knowing and doing, featuring content presented in a way that is relevant and motivating.

Tips for Behavior Change

This important feature provides practical applications of the Transtheoretical Model of Behavior Change by helping students integrate the process and strategies of change into their lives.

Prescription for Action

These boxes, located at the end of each chapter, offer practical ideas for behavior change. Each “self-prescription” includes a selection of daily actions that are small in themselves—such as walking an extra 2,000 steps, stretching while watching TV, or getting an extra hour of sleep—but targeted toward a larger goal.



Frequently Asked Questions

This popular feature highlights the questions about fitness and wellness that seem to be on everyone’s mind. It addresses myths and offers practical approaches to fitness and wellness.



Lab Activities

Conveniently located at the end of each chapter, these labs help students apply their learning to their everyday life. (Interactive versions of these labs are included in Connect for *A Wellness Way of Life*.)



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INSTRUCTOR RESOURCES

Instructor resources, which can be accessed through the Library Tab in Connect, include a Test Bank and PowerPoint presentations for each chapter. The PowerPoint presentations include alt descriptions for images as needed for students who are visually impaired.

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We dedicate this eleventh edition to the students past, present, and future. We wish you a lifetime of wellness.

*Gwen Robbins
Debbie Powers
Sharon Burgess*

LIST OF LAB ACTIVITIES

- Lab Activity 1-1:** Healthy Lifestyle: A Self-Assessment
- Lab Activity 1-2:** Assessing Your Wellness
- Lab Activity 1-3:** Societal Norms: The Unwritten Codes
- Lab Activity 2-1:** Identify Your S.M.A.R.T. Goal
- Lab Activity 2-2:** Behavior-Change Contract (Using the Transtheoretical Model)
- Lab Activity 2-3:** Using the “S’s for Success” in Changing Your Behavior
- Lab Activity 3-1:** Student Precourse Health Assessment Form
- Lab Activity 3-2:** Physician-Approved Exercise Clearance Form
- Lab Activity 3-3:** Personal Fitness Profile
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- Lab Activity 3-5:** Evaluating Your Cardiorespiratory Fitness: 500-Yard Water Run Test and 500-Yard Swim Test
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- Lab Activity 3-10:** Body Composition Assessment
- Lab Activity 4-1:** Calculate Your Target Heart Rate (THR) Range
- Lab Activity 4-2:** Using a Pedometer: “How Many Steps Do I Take?”
- Lab Activity 4-3:** Exercise Across the U.S.A.
- Lab Activity 4-4:** “I Have No Time . . .”: Overcoming Obstacles to Exercise
- Lab Activity 4-5:** Cardiorespiratory Exercise Log Sheet
- Connect-Only**
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- Lab Activity 5-1:** 5-Minute Dynamic Warm-Up Session
- Lab Activity 5-2:** Introductory Flexibility Session
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- Lab Activity 5-4:** Hatha Yoga Workout: Sun Salutation (or Salute to the Sun)
- Lab Activity 6-1:** Weight Training Experience
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Connect-Only

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Lab Activity 16-4: Health Fraud Detection

Understanding Wellness

1



STUDY QUESTIONS

You will have successfully mastered this chapter if you can answer the following:

1. What are the top three leading causes of death in the United States for all ages? For ages 15–24?
2. What is the definition of *chronic disease*? Name four chronic diseases.
3. Can you define *healthy life expectancy* and explain why it is low in the United States compared with other industrialized countries?
4. Can you name the largest contributing factor affecting longevity?
5. What are the top four lifestyle behaviors that contribute to premature deaths in the United States?
6. What are the four overarching goals of the publication *Healthy People 2020*?
7. What are five specific lifestyle practices that can reduce the risk of chronic diseases and enhance wellness?
8. What is the definition of *wellness*?
9. Can you identify the eight dimensions of wellness and give three examples within each dimension?
10. Can you list and describe the six factors that influence growth in wellness?
11. What is the definition of *societal norm*?
12. What are four examples of ways society supports wellness and four examples of ways society detracts from wellness?

You will find the answers as you read this chapter.

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Life is not merely to be alive, but to be well.

—Martial



As Rob lay in the coronary care unit, his eyes surveyed the various tubes and wires connected to his tired body. The nightmare of the past 24 hours was over, but the pain and confusion lingered.

“How can this be? I’m only 49 years old. How could I have had a heart attack? What if I die? What about my wife? My son? My daughter? I’ve just become a grandpa. I was given a big promotion at work. Why now?” Rob’s mind drifted.

“But I’m an athlete! Well, I *was* an athlete back in high school. Once I started college, there was no time for sports or exercise. Started smoking, too. Figured I’d stop when the deadlines subsided, but the stresses never ended. Drank too much, too; partied a lot. Still like a couple of drinks to end the day. I always thought I’d lose those extra 30 pounds—always next year, always a New Year’s resolution. Diet? Too busy. Vending machines, hot dog stands, snacks in front of the TV, fast food. No time. Too much to do. Money to make. A lot of stress. Can’t stop now. There’ll be time later.”

Rob’s mind drifted back to his room. He could faintly hear his doctor’s voice—“Stop smoking . . . Change in lifestyle . . . More fruits and vegetables . . . Start exercising . . . Cholesterol is 280 . . . Break old habits.” Rob thought, “How I wish I could turn back the clock!”

This story is too common in the United States. More than half of all deaths in this country are attributed to coronary heart disease and stroke. Although most heart attacks occur after middle age, many people are afflicted far too young. Table 1-1 lists the leading causes of death in the United States. One hundred years ago the leading causes of death were infectious diseases, such as tuberculosis, polio, diphtheria, pneumonia, and influenza, and various diseases of infancy. Advances in medicine, the discovery of antibiotics, and improved sanitation diminished the incidence of these ravaging diseases and increased the average life span. Through scientific discovery, technology, industrial growth, and automation, the entire American lifestyle has changed. We use remote controls to change television channels and open garage doors. Appliances wash our clothes, dishes, and teeth. We ride vehicles to work, to school, and even while playing golf. “Surfing the Net” is much more popular than surfing the ocean. We

allow ourselves to be bused and trucked, elevated and escalated, and then wonder why we get fat and are out of shape. This so-called good life has created sedentary living, changes in eating habits (fast foods, increased fats and sweets, processed foods), stress, alcohol and drug abuse, and obesity. Although social scientists predicted in the 1960s that technology would create a future of abundant leisure time, in actuality, most of us face an unrelenting pace of increased expectations and demands. With iPads, iPhones, and other technology, we are “wired” 24 hours a day. Chronic hurrying has created chronic stress. Life has gotten out of balance for many. As Mahatma Gandhi once said, “There is more to life than increasing its speed.”

The harsh truth is that a high percentage of disease and disability affecting the American people is preventable, a consequence of unwise behavior and lifestyle choices. As obesity rates continue to increase, health officials predict that obesity will soon surpass tobacco as the leading contributor to premature death in the United States. Instead of infectious diseases, we now die of **chronic diseases**—diseases that develop over many years and are heavily influenced by lifestyle. Examples of chronic diseases are heart disease, cancer, stroke, type 2 diabetes, atherosclerosis, obesity, and osteoporosis. Chronic diseases account for 70 percent of all deaths in the United States, and 1 out of every 2 adults has at least one chronic illness.

If you are like most young people, you underestimate your future risk of chronic diseases. Studies show that many young adults already possess several risk factors that can lead to these lifestyle diseases. Underestimation of your risk is of substantial concern because *action* should be an outcome of your health knowledge. After all, the truly educated individual understands cause and effect. Nevertheless, many young adults are much more interested in the present than the future. Good health is often taken for granted until it is lost. You make choices every day that either increase or decrease your risk for developing chronic diseases.

This chapter introduces you to the concept of high-level wellness. You will see that wellness living and healthy lifestyle interventions that begin early in life can shape your health destiny and lead to a vibrant life.

TABLE 1-1 Leading Causes of Death in the United States

Rank	All Ages	Ages 15–24	Ages 25–44	Ages 45–64
1.	Heart disease (611,105)	Accidents	Accidents	Cancer
2.	Cancer (584,881)	Suicide	Cancer	Heart disease
3.	Chronic respiratory disease (149,205)	Homicide	Heart disease	Accidents
4.	Accidents (130,557)	Cancer	Suicide	Liver disease
5.	Stroke (128,978)	Heart disease	Homicide	Chronic respiratory disease
6.	Alzheimer’s disease (84,767)	Congenital anomalies	Liver disease	Diabetes mellitus
7.	Diabetes mellitus (75,578)	Pneumonia and influenza	Diabetes mellitus	Stroke
8.	Pneumonia and influenza (56,979)	Diabetes mellitus	Stroke	Suicide
9.	Kidney disease (47,112)	Pregnancy complications	HIV	Systemic blood infections
10.	Suicide (41,149)	Chronic respiratory disease	Pneumonia and influenza	Kidney disease

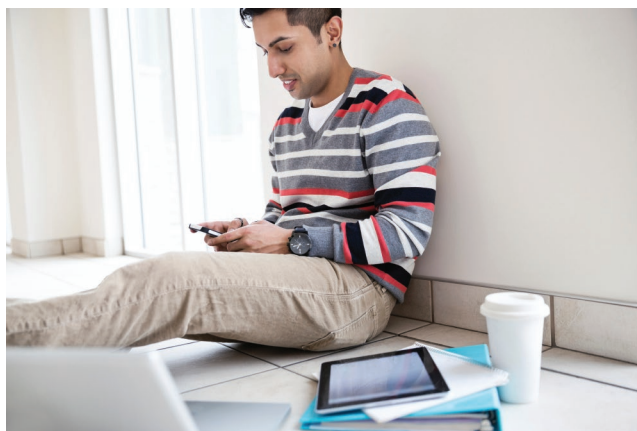
SOURCE: CDC/NCHS, *Health, United States 2014*, May 2015.

HEALTHY LIFE EXPECTANCY AND THE COSTS

Life expectancy in the United States is 78.8 years (76.4 for men and 81.1 for women). Life expectancy is not the same as *healthy* life expectancy. **Healthy life expectancy** is the number of years a person is expected to live in *good* health. This number is obtained by subtracting years spent in poor health from overall life expectancy. The World Health Organization (WHO) calculates healthy life expectancy in 194 countries. The United States ranks twenty-ninth in the world using this measurement, with an average of 70 years of healthy life expectancy. Singapore ranks number one (76 years), and Japan is number two (75 years).

The ranking of the United States is surprisingly low in light of its status as a country with one of the best medical care systems in the world. The WHO report indicates that Americans die earlier and spend more time disabled than do people in most other advanced countries. Several factors are cited in the WHO report to explain why the United States ranks relatively low among wealthy nations:

1. Some groups, such as American Indians, rural African Americans, and the inner-city poor, have extremely poor health that is more characteristic of a poor developing country than of a rich industrialized one.
2. The HIV epidemic causes a higher proportion of death and disability in the United States than in other developed countries.
3. The United States is one of the leading countries for cancers because of the high incidence of tobacco use.
4. The United States has a high incidence of coronary heart disease.
5. The United States has a fairly high level of violence, especially homicides, compared with other industrialized countries.



With technology we can shop, order food, communicate with others, operate appliances, and be entertained . . . all without moving.

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In contrast, the United States spends more than twice as much for health care than any other nation. Yet we are among the sickest in the world! As chronic diseases rob more Americans of their lives or their quality of life, they also wreaking havoc on our nation's economy. National health care expenditures in the United States are \$3 trillion (\$9,255 per person) and are rising every year. Seventy-five percent of this spending is for patients with chronic diseases. Despite public health promotion, smoking alone costs our society billions annually in health care costs and lost productivity (and causes more than 480,000 premature deaths). Cardiovascular diseases cost more than \$440 billion annually, and the financial burden of obesity rivals that of smoking. Excessive drinking costs the United States \$223.5 billion in lost workplace productivity, health care expenses, law enforcement, and motor vehicle crash costs. In fact, for the first time in history, experts predict a decline in life expectancy in the United States in the twenty-first century due to the rising prevalence of obesity. During the past several years, expenditures for prescription drugs have grown at a faster rate than has any other type of health cost. Unfortunately, not enough of the health care expenditures go toward prevention. America is terrific at expensive, heroic care but very poor at low-cost preventive care! Health advocate Dr. Andrew Weil concurs that a radical transformation from disease *intervention* to disease *prevention* is the only way to make health care cost effective.

This burden will continue to grow as the population ages. According to government statistics, as much as two-thirds of disability and death up to age 65 would be preventable in whole or in part if we applied what we know about the effects of lifestyle on premature illness and death. You may be thinking "but we all have to die sometime!" Of course that is true.



Cardiovascular diseases, the number-one killer of both men and women, are considered "lifestyle" diseases.

© Ryan McVay/Getty Images

But we are born to last nearly 100 years, and not meant to suffer from chronic diseases in our 40s and 50s. Former U.S. surgeon general C. Everett Koop states, “We are in an era of self-induced premature deaths.”

Determinants of Health and Longevity

As a result of the curative focus of our health care system, a majority of our health care dollars are spent on procedures for patching people up after the damage has been done. Because billions of dollars are spent to treat the results of bad eating and drinking habits, sedentary living, stress, and smoking, our system probably should be renamed “sickness care” rather than “health care.” Because of the medical procedures, drugs, and technologies currently available, many people have become complacent about their health habits. They think they can be “bailed out” by medical science.

A range of factors underlie one’s susceptibility and predisposition to ill health. (See Figure 1-1.) Rather than working independently, all of these factors interact. It is important to understand how these factors work in combinations and affect each other. Nevertheless, the largest contributing factor is lifestyle behaviors.

Heredity

Predisposition to health or disease begins at conception. Each of us has cellular codes that dictate our size, shape, personality, and biological limits. However, our hereditary tendencies are strongly affected by other determinants, such as social circumstances and behavioral choices.

Social Circumstances

Powerful influences on our health are derived from circumstances such as education, income, housing, employment, poverty, crime, and other community forces.

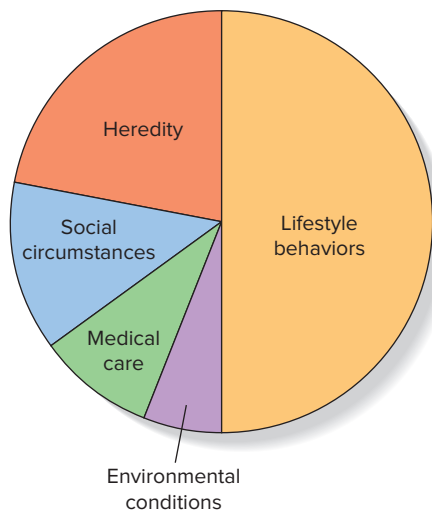


FIGURE 1-1 Factors affecting longevity. Our longevity is affected by a combination of factors.

SOURCE: Adapted from McGinnis, J. M., *American Journal of Health Promotion* 18 (Nov./Dec. 2003): 146–150

Environmental Conditions

Home, work, and community environments sometimes present us not only with barriers to active lifestyles but also with toxic hazards. Environmental pollutants, chemical contaminants, radon, occupational hazards, and tobacco smoke all have the potential for triggering cellular changes.

Medical Care

Despite the expensive and stunning feats of our medical care system, the contribution of medical treatment to overall gains in the function and quality of life has been limited in recent years. Whereas the introduction of antibiotics and improved sanitation in the early 1900s increased our life span by more than 60 percent, modern-day medical treatments and technologies have had far less dramatic impact.

Lifestyle Behaviors

In the United States, lifestyle behaviors represent the single most controllable influence over our health prospects. The daily choices we make with respect to diet, physical activity, stress management, tobacco and alcohol use, sexual practices, and safety issues are the most important determinants of well-being. It has been well documented that the top four lifestyle behaviors that contribute to premature deaths in the United States are

1. Tobacco use
2. Poor diet
3. Lack of exercise
4. Alcohol abuse

These are often designated as the “actual” causes of death in contrast to the “leading” causes of death listed in Table 1-1. As people learn more about the effect of behavioral factors, we hope they will accept personal responsibility for making changes in their lifestyle and find joy in discovering how much power they truly have in determining their health destiny.

The Power of Prevention

Surveys show that two in three Americans underestimate the impact of chronic diseases on the number of premature deaths and overall health care costs. Because the vast majority of chronic diseases can be prevented or managed, it is essential to empower individual responsibility. This involves aggressive health promotion. **Health promotion** is the science and art of helping people change their lifestyle to move toward a state of optimal health. Health promotion involves systematic efforts by organizations to create healthy policies and supportive environments as well as the reorienting of health services to include more than clinical and curative care. Unfortunately, of the trillions of dollars spent on health care each year, less than four cents out of every dollar is spent on prevention and public health. Lifestyle change is motivated not by knowledge alone but also by supportive social environments and the availability of facilitative services. Examples of health promotion programs are weight-loss workshops, smoking cessation clinics, and stress management seminars.

Laws and policies such as those prohibiting drunk driving, those curtailing pollution, and those establishing smoke-free areas also assist in health promotion.

Because the preventive aspects of health have become more publicized, research studies involving diet and exercise often become instant headlines (e.g., Which is better . . . butter or margarine? Coffee or tea? Protein or carbohydrate?). Sometimes the information is reported only partially, resulting in confusion, contradiction, and even sensationalism. Bewildered and wary, many Americans reject or ignore many legitimate health pronouncements. It is a challenge to recognize legitimate health pronouncements. Being educated about wellness will empower you to make informed decisions and distinguish between legitimate health pronouncements and fads and illegitimate assertions. Regardless of the messages, a majority of Americans today continue to be sedentary and overweight. Stress levels and blood sugars continue to soar. Though the relationship between lifestyle and health is clear, adopting healthy lifestyle habits can be challenging in our environment where fast food is everywhere, we ride rather than walk, and we sit rather than play. But the good news is it can be done, and it does make a difference in health, longevity, and vitality.

“The United States cannot effectively address escalating health-care costs without addressing the problem of chronic diseases.”

—CENTERS FOR DISEASE CONTROL AND PREVENTION

Healthy People 2020

Every 10 years the government establishes health goals for the nation. Created in the 1970s, *Healthy People* is a national crusade for health promotion. Its objectives set an agenda for getting Americans to live longer, healthier lives. The U.S. Department of Health and Human Services reassesses these goals every 10 years and issues a report card on the progress made in the previous decade. *Healthy People 2020* is the most recent road map for improving the health of all people in the United States. *Healthy People 2020* is committed to four overarching goals:

1. Attain high-quality, longer lives free of preventable disease, disability, injury, and premature death.
2. Achieve health equity, eliminate disparities, and improve the health of all groups.
3. Create social and physical environments that promote good health for all.
4. Promote quality of life, health development, and healthy behaviors across all life stages.

To achieve these lofty goals, specific objectives have been targeted for the year 2020 in areas such as chronic diseases, environmental health, nutrition and weight status, physical activity, sleep health, injury and violence prevention, and social determinants of health, among many others. The specific objectives and reports on progress toward each goal can be found at www.healthypeople.gov.

How are we doing at reaching these goals? By many measures, not so hot. Whereas raising childhood vaccination rates, lowering cancer death rates, increasing seat belt use, and reducing work injuries show improvement, we are failing in the main objectives. Blood pressures, consumption of healthy foods, obesity rates, and exercise habits are far from their recommended national goals.

Because of the diversity and varying needs of Americans, reaching each goal is a challenge. (See Diversity Issues.) Goals are only dreams without action plans. That is where federal agencies, state organizations, local communities, businesses, schools, families, and YOU enter the picture. The health of the nation is improved with coordinated efforts that begin with individual action and personal responsibility. The federal government is playing a leadership role in cultivating a culture of healthier, life-enhancing habits for all Americans, regardless of income, race, sex, or other status. We must do our part to help.

One of the purposes of *Healthy People 2020* is to motivate people to take action. Surveys reveal that since 1990, young adults aged 18–24 from all racial and ethnic groups show a larger increase in several risk behaviors than all other age groups in the United States. Those risk behaviors are obesity; inactivity; increases in tobacco use among young women; low vegetable and fruit intake; risky sexual behaviors; and behaviors that contribute to unintentional injuries (i.e., binge drinking, drinking and driving, fighting, dating violence, drug use, etc.). This is a particular public health concern because young adulthood is when independent lifelong habits are established. Young adults, apparently believing they are immune from risk, are not too far from entering the ages of high chronic disease burden. It is up to each of us to develop strategies for incorporating healthy habits into our daily lives. Look at the Top 10 “Lifestyle Practices That Enhance Wellness.” How many of these habits do you practice?

There is nothing extreme or magical in this list. It shifts the main responsibility for health to the individual rather than relegating the individual to a position of passivity amid excessive surgeries, medications, and medical tests. One physician has summarized the issue by stating, “One of my frustrations in medicine was having people come to me expecting way too much of me and not expecting anything of themselves.”

To evaluate your personal lifestyle habits, look to *Healthy Lifestyle: A Self-Assessment*, Lab Activity 1-1.

THINK ABOUT IT

Lifestyle behaviors represent the most controllable influence over one’s health. As a result, some employers are considering increasing health insurance premiums for employees who smoke, are overweight, or have high blood pressure. Other employers are considering paying bonuses for those who exercise regularly and maintain a healthy weight. What is your reaction to these workplace trends? What are the factors to consider in implementing such programs?



DIVERSITY ISSUES

Health Disparities Among Americans

Although the diversity of the American population may be one of our nation's greatest assets, diversity also presents a range of health improvement challenges. Causes for these disparities could be variances in education and income levels, accessibility to health care, health insurance coverage, living environments, cultural preferences and influences, and discrimination. African Americans, American Indians, Alaska Natives, Asian Americans, Hispanics, and Pacific Islanders are more likely than whites to have poor health and to die prematurely, as the following examples illustrate:

- **Breast and cervical cancers.** Although death rates from breast cancer are declining steadily, they remain higher among African American women than among white women. The incidence of cervical cancer is higher in Hispanic and

African American women than in white women.

- **Cardiovascular disease.** African Americans have the highest death rates from heart disease and stroke compared to all other racial and ethnic populations.
- **Diabetes.** American Indians, African Americans, and Hispanics have nearly twice the prevalence of diabetes compared to whites.
- **Obesity.** The prevalence of obesity among adults is highest among African American and Hispanic women. The states with the highest rates of obesity in the nation are also the poorest.
- **Life expectancy.** The life expectancy for African Americans is approximately 5 years less than for whites, Hispanics, or American Indians.

Sources: Centers for Disease Control and Prevention, *Health Disparities and Inequalities Report, 2013*; Centers for Disease Control and Prevention, *Health, United States, 2013*.

Understanding Risks

Often in this book we talk about risks. In an effort to prevent disease and promote health, it is important to identify the factors that cause disease and injury. From this process, probabilities are determined as to the chances for occurrence.

Like placing a bet at a racetrack, identifying risks is a way of quoting the odds. No one can promise you that doing something or refraining from doing it will keep you safe or that doing one thing will kill you. You must draw your own conclusions from the evidence. There is no such thing as absolute safety, and so you can choose only to widen or to narrow your risk margins with your habits.

One ongoing study has resulted in much of the information we have about the risk factors associated with several chronic diseases. The people of Framingham, Massachusetts, a community 18 miles west of Boston, have been studied and charted since 1950. The Framingham Study, as it has become known, has resulted in information about how heredity, environment, medical care, and lifestyle factors affect heart disease and well-being. A comprehensive longitudinal study such as this, in contrast to a short-term, isolated study involving only a few people, results in reputable data pertaining to risks. So, although the risk of most chronic diseases can't be totally eliminated, it can be significantly reduced using information from studies such as this. We hope you are thinking beyond mere "risk avoidance" to a life full of enrichment, self-fulfillment, and satisfaction. This dramatic shift in emphasis toward self-responsibility and an expanded quality of life has evolved into a concept called *wellness*.

TOP

10

Lifestyle Practices That Enhance Wellness

1. Exercise aerobically at least four to five times per week.
2. Eliminate all tobacco products.
3. Limit animal fats, cholesterol, trans fats, and saturated fats in the diet.
4. Eat five to nine daily servings of fruits and vegetables and include other high-fiber foods and whole grains every day in the diet.
5. Assess personal stressors and practice stress management techniques, including maintaining a strong social support system.
6. Limit the consumption of alcohol to no more than one drink (women) or two drinks (men) per day.
7. Pursue and maintain a healthy weight.
8. Fasten seat belts and wear a helmet when riding a bicycle or motorcycle.
9. Practice safer sex habits.
10. Balance work, social, and personal time, including getting 7 to 9 hours of sleep every night.

HIGH-LEVEL WELLNESS

In 1948 the World Health Organization defined **health** as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." In the late 1950s Dr. Halbert Dunn began writing about the upper



THE NUMBERS

5.6 million	Americans under the age of 18 projected to die prematurely from smoking-related diseases if current smoking rates continue.
25%	U.S. adults who have two or more chronic diseases.
6.8	Average number of hours U.S. adults sleep each night.
86%	Portion of medical care dollars spent on treating chronic diseases.
3%	U.S. adults who adhere to all of the following <i>four</i> health habits: don't smoke; exercise 30 minutes 5 days a week; maintain a healthy weight; and eat five or more servings of fruits and/or vegetables daily.

limits of health—the *ultimate* in health. He was the first to use the word *wellness* in his writings in reference to the pursuit of optimal well-being. Dunn viewed “health” as a relatively passive and neutral state of existence—in contrast to “wellness,” which he described as an ever-changing process of growth toward an *elevated* state of superb well-being, and where one is actively working to reach it. Today, **wellness** is defined as *an integrated and dynamic level of functioning oriented toward maximizing potential, dependent on self-responsibility*. Wellness involves not only preventive health behaviors but also a shift in *thinking* and *attitude*. Wellness is a mind-set of lifelong growth and achievement in the emotional, spiritual, physical, occupational, intellectual, environmental, financial, and social dimensions. It means a lifetime of striving toward ever-higher levels of functioning where complacency and passivity are not tolerated.

High-level wellness is achievable by people of all ages, all socioeconomic groups, and all types. It involves working toward becoming the best you can be without accepting “traditional” limitations (i.e., age, race, gender, heredity). Wellness is a way of living in which growth and improvement are sought in all areas. It involves a lifestyle of deliberate choices and self-responsibility, requiring conscientious management and planning. Living a wellness lifestyle does not come about by accident or luck. It also involves much more than curing sickness, counting fat grams, jogging, and measuring body fat. It is a *mind-set* of personal empowerment. It means approaching life with optimism, confidence, and energy. Unlike sickness care, which involves treatment, wellness is a lifelong quest toward optimal functioning in which *you* take charge. Individuals who strive for wellness have an exceptional openness to experience. Rather than

fearing new experiences and life’s changes, they welcome them as a way to grow. They do not allow prejudices or stereotypes to distort their perceptions. They take control of life and face it with creativity and freshness. Living a wellness lifestyle has good potential for increasing longevity. However, this is not the sole purpose of wellness living. Wellness author and advocate Donald Ardell agrees. He states, “Wellness is not a goal to be attained but a process to be maintained.” Simply put, wellness is the idea of being aware of and actively working toward better health. When you think of wellness, think of the phrase “Make the *rest* of your life the *best* of your life.” No matter where you are starting from or what you’ve done in the past, you have the capacity to take steps to improve your personal well-being.

Figure 1-2 shows a wellness continuum. You do not attain a “state of wellness” and then stop. Your personal choices dictate whether you are moving upward toward high-level wellness or downward away from your wellness potential. In what direction are you traveling on the wellness continuum?

The Dimensions of Wellness

The wellness lifestyle is a coordinated and integrated living pattern that involves eight dimensions: physical, intellectual, emotional, social, spiritual, environmental, occupational, and financial. There is a strong interconnection among these dimensions. For example, joining an exercise class in your community most notably enhances your physical well-being, but it can also be socially enriching and intellectually stimulating as you learn more about the functional capacity of the human body. It can also help relieve emotional stress. Attending the class with coworkers after work may improve your occupational wellness. In each dimension there is opportunity for personal growth, and due to the dimensions’ interrelationships, growth in one area often sparks interest in another. *Balancing* these dimensions, however, is important in pursuing wellness. For example, being an avid reader yet not being able to get along with anyone is not an example of balanced wellness.



Wellness means striving to be the best you can be regardless of life’s situations or circumstances.

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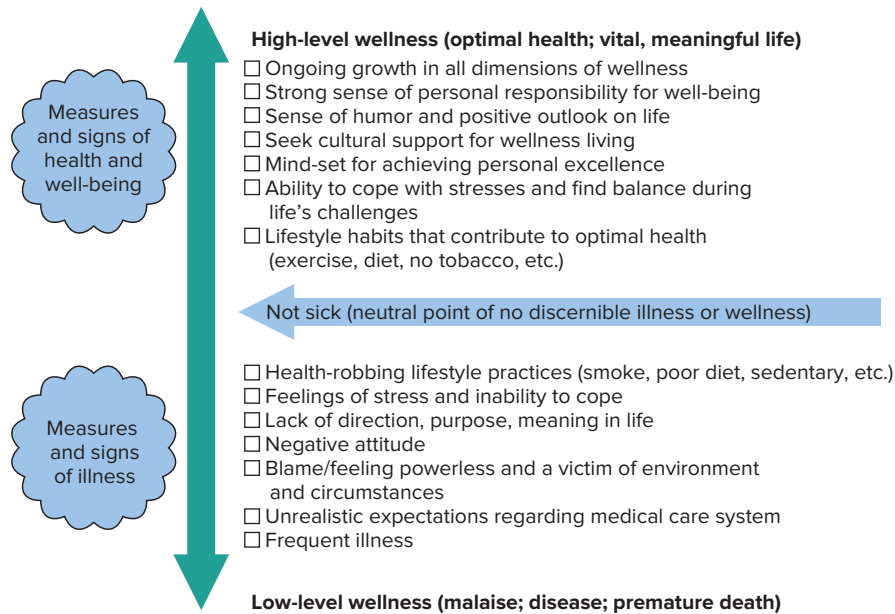


FIGURE 1-2 Wellness continuum. In the boxes to the left of the descriptors, check off how many fit you. In which direction are you traveling on the wellness continuum?

Physical Dimension

The **physical dimension** deals with the functional operation of the body. It involves the health-related components of physical fitness—muscular strength, muscular endurance, cardiorespiratory endurance, flexibility, and body composition. Dietary habits have a significant effect on physical well-being. Your sexual, drinking, and drug behaviors also play a role in physical health. Do you smoke? Do you get enough sleep? Are you overweight? Do you catch many colds? These questions deal with your physical dimension.

The physical dimension also includes medical self-care—regular self-tests, medical and dental checkups, proper use of medications, taking necessary steps when you are ill, and appropriate use of the medical system. Managing your environment also affects physical well-being. For example, do you try to minimize your exposure to tobacco smoke and harmful pollutants? Your body is the vehicle in which you travel throughout life; treat it like the precious entity it is.

Intellectual Dimension

The **intellectual dimension** involves the use of your mind. Maintaining an active mind contributes to total well-being. Intellectual growth is not restricted to formal education—that is, school learning. It involves a continuous acquisition of knowledge throughout life, engaging your mind in creative and stimulating mental activities, and opening your mind to new ideas. Curiosity and learning should never stop. Reading, writing, and keeping abreast of current events are intellectual pursuits. Being able to think critically and analyze, evaluate, and apply knowledge is also associated with this dimension. Do you visit museums or attend cultural

events? Do you watch educational programs on television? The link between intellectual stimulation and healthy living is undeniable.

Emotional Dimension

The abilities to laugh, enjoy life, adjust to change, cope with stress, and maintain intimate relationships are examples of the **emotional dimension** of wellness. Emotional wellness includes three areas: awareness, acceptance, and management. Emotional awareness involves recognizing your feelings, as well as the feelings of others. Emotional acceptance means understanding the normality of human emotion, in



Having a strong desire to continue learning throughout life shows strength in the intellectual dimension of wellness.

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addition to assessing your personal abilities and limitations realistically. Emotional management is the ability to control or cope with personal feelings and knowing how to seek support when necessary. It involves having adequate stress-coping mechanisms.

At one time the mind was considered a separate entity from the physical body. Now, however, there is much research linking emotions to physical well-being. A complex system of chemical messengers connects the mind and body. The production of these chemicals can be turned on and off based on thoughts and emotions. Therefore, being stuck in a negative emotional state (anger, loss, depression, fear, anxiety, or hostility) can affect this chemical system, thereby reducing immune function and increasing illness. Conversely, emotions such as happiness, contentment, and joy can positively affect health and vitality.

Research shows that optimistic and positive-thinking people live longer. They become masters of their own fate not just because they *believe* good things will happen but also because they believe they can *make* good things happen. Having a positive mental state is directly linked to wellness.

Social Dimension

Everyone must interact with people. The **social dimension** of wellness involves the ability to get along with others, appreciate the uniqueness of others, and feel connected to others. You achieve social wellness when you feel a genuine sense of belonging to a social unit. Good friends, close family ties, volunteerism, community involvement, and trusting relationships go hand in hand with high-level wellness. Whereas feelings of isolation and loneliness are linked to ill health, feeling “connected” to a person, group, cause, or even a pet is a health strengthener. Granted, there are times when most everyone feels lonely. However, this state can be short lived if healthy relationships with others are maintained. And this feeling of connection can yield positive health benefits. Studies have shown the power of supportive relationships in reducing the risk, frequency, and severity of illness—and even in promoting healing. Included in the social dimension is the ability to exhibit concern for the welfare of your community and fairness and justice toward others. Social wellness also involves concern for humanity as a whole.

Spiritual Dimension

The **spiritual dimension** involves the personal search for meaning and direction in life. For many people, spiritual wellness means identifying a creator, a god, or a specific religion. However, the spiritual dimension is not always synonymous with religion. In its purest sense, spiritual wellness involves cultivating beliefs, principles, and values that provide guidance and strength throughout all of life’s experiences. Why am I here? What path will lead to fulfillment in my life? What is life about? What are my values? These questions are most often answered within the context of a larger reality beyond the physical and material aspects of existence. Selflessness;

TOP

10

Components of Spirituality

Spirituality and religion are related but not always synonymous. However, the practice of religion may deepen spirituality for some. One cannot discount the importance of organized religion to the spirituality of millions. Nevertheless, it is inappropriate to suggest that one must practice a specific religion to develop spiritual wellness. This list includes components that are typically seen in a spiritual life. Those who develop spiritual wellness see spirituality as a journey or process, not a destination. How many of these 10 components do you possess?

1. Belief in a higher power, being, or energy force greater than oneself that provides strength in coping with the demands and challenges of life.
2. Feelings of hope about the future.
3. Feelings of purpose, meaning, and direction in life.
4. Feelings of optimism; ability to see the best side of a situation.
5. Regular worship, prayer, meditation, or spiritual study/reflection.
6. Universal love and devotion to the welfare of others.
7. Possession of moral and ethical principles that reflect one’s spiritual beliefs.
8. Possession of a clear set of values and ability to live according to those values.
9. Ability to share spiritual values with others and tolerance of others whose beliefs are different from yours.
10. Feeling a sense of unity with nature and the universe; inner peace.

compassion; honesty; joy for living; forgiveness; charity; and the development of a clear, comfortable sense of right and wrong are components of spiritual wellness. The Top 10 “Components of Spirituality” can help you gain an understanding of the components of a spiritual life.

There is a strong connection between spirituality and self-esteem because of the internal feelings of self-worth that occur when a sense of hope, purpose, and morality is developed. Attempts to achieve long-term self-esteem through external constructs of power, socioeconomic status, or physical appearance fail. Like all dimensions of wellness, spirituality does not “happen.” It is a process of growth requiring time and attention. Medicine has begun to recognize the strong influence of spirituality on health and illness. Studies of cancer patients have shown that those who continuously pursue goals related to living a meaningful life boost the natural killer cell activity in their immune systems.

Environmental Dimension

The **environmental dimension** of wellness deals with the preservation of natural resources as well as the protection