

Wellness

Concepts and Applications

Fourth Edition

David J. Anspaugh
Michael H. Hamrick
Frank D. Rosato

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Fourth Edition

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Memphis, Tennessee



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We dedicate this book to

Susan H. Anspaugh

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WELLNESS: CONCEPTS AND APPLICATIONS, FOURTH EDITION

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Wellness: Concepts and Applications assumes that health is not a destination but a journey. Wellness is not a static condition but a continual balancing of the different dimensions of human needs—spiritual, social, emotional, intellectual, physical, occupational, and environmental. Because we are all responsible for our own growth in these areas, this book strives to emphasize the importance of self-responsibility. And because we know that knowledge alone stimulates change for very few people, the reader is challenged to be actively involved in the learning process by constantly assessing how the information presented affects lifestyle from a personal perspective.

Wellness: Concepts and Applications is neither a fitness book nor a personal health text. Instead, this text is designed to help students gain knowledge and understanding in a variety of areas, with the goal of taking that information and using it to make behavioral changes that will have a positive impact on their lives. In many cases these changes are necessary if people are to develop the skills, attitudes, beliefs, and habits that will ultimately result in the highest possible level of health and wellness.

Audience

When the fitness and wellness concept appears in university courses and programs, it is usually a scaled-down model of the traditional personal health course or an upscale version of physical fitness courses. In some cases it is a hybrid of personal health and fitness courses, with emphasis on self-participation in the medical marketplace. *Wellness: Concepts and Applications* is a hybrid because the physical components of wellness are blended with its many other components. The primary objectives of this text are to present cogni-

tive health and wellness information appropriate for today's college students and to offer suggestions for their application. These suggestions relate to lifestyle behaviors over which people can exert some control. The emphasis is on self-responsibility, and this theme is implemented through a strong self-analysis and assessment component.

Approach

Important features unique to *Wellness: Concepts and Applications* distinguish it from other texts.

Balanced approach: Unlike other approaches that emphasize only physical fitness as a route to wellness, *Wellness: Concepts and Applications* provides a balanced presentation of the health benefits of exercise, diet, and cardiovascular wellness, along with the management of lifestyle change and consumer responsibility to achieve lifetime wellness.

Complete lifestyle decision-making information: Along with Goals for Behavior Change, Real-World Wellness boxes, Wellness on the Web Behavior Change Activities, and Assessment Activities that help apply the content, coverage of substance use, sexually transmitted diseases, cancer, and chronic health conditions is provided to enable and encourage responsible student decision making.

Consumer-oriented: Chapter 15, "Becoming a Responsible Health-Care Consumer," offers information to help students become wise consumers.

Interdisciplinary author team: Two health educators and a fitness educator currently teaching wellness courses have combined their expertise to provide the most balanced presentation possible.

Full-color: A full-color format is used in the photographs, line drawings, and design of the text to increase visual appeal and to enhance the teaching-learning process.

Highlights of This Edition

Every chapter of *Wellness: Concepts and Applications* has been carefully updated. New chapters, features, and issues found in this edition are highlighted here.

New Design and Illustrations

The fresh look, appealing colors, and exciting graphics in this new edition will draw students in with every turn of the page. The illustration program has been completely revised: The many new photographs reflect the diversity of college students of all ages, and the all-new drawings are attractive and informative.

Separate Chapters on Cancer and Common Conditions

In this edition of *Wellness: Concepts and Applications*, separate chapters are devoted to cancer and common conditions. To prevent and manage conditions such as colds, diabetes, and osteoporosis, students want and need basic, accurate information. In addition, rapid developments in cancer prevention, diagnosis, and treatment warranted a separate, more comprehensive chapter on cancer, in which the latest research and information are presented.

HealthQuest Activities

The HealthQuest CD-ROM that accompanies each new copy of *Wellness: Concepts and Applications* contains many useful health and wellness self-assessments. The software is organized into nine modules: Stress Management and Mental Health; Fitness; Weight Control; Communicable Diseases; Cardiovascular Health; Cancer; Tobacco; Alcohol; and Other Drugs. The modules are based on Prochaska's stages of change model, which is presented in Chapter 1 of the text. The HealthQuest Activities complement the Assessment Activities in the text, and they help students get the most from the book and the software.

Goals for Behavior Change

Goals for Behavior Change, listed at the beginning of each chapter, give students objectives that help them apply what they learn in the text. These objectives reinforce the concept of self-responsibility on which the text is based.

Wellness on the Web Behavior Change Activities

The text includes activities in every chapter that take students to quizzes, questions, and self-assessment activities that make surfing the web more interactive and

fun for students. Completing these activities will help them assess their current practices and design a more wellness-oriented lifestyle.

Wellness Across the Generations

Many students who take a wellness course are returning to school after some time in the work force. Many of them are raising children or caring for aging parents. Younger students are concerned about how their health will change as they age. New Wellness Across the Generations boxes address wellness concepts throughout the life span by looking at issues such as childhood origins of heart disease, alcohol and drug use among young women, and strength training for older adults.

Nurturing Your Spirituality

Spirituality has become an important focus of the wellness movement. Nurturing Your Spirituality boxes highlight the spiritual dimension of wellness and its effect on overall wellness. The boxes cover topics such as living well with cancer, making decisions about sex, and enjoying healthy pleasures, showing students that wellness goes beyond the physical dimension.

Real-World Wellness

These unique question-and-answer boxes show students how to put wellness concepts into practice. Helpful tips give students practical advice for initiating behavior change and staying motivated to follow a wellness lifestyle. For example, students will learn how to exercise safely in the city, how to decide which smoking cessation aid to use, and how to choose satisfying, nutrient-dense snacks.

Just the Facts

In every chapter, special material in Just the Facts boxes encourages students to delve into a particular topic or closely examine an important health issue.

Complete, Current Coverage of Nutrition and Weight Control

Chapter 6, "Forming a Plan for Good Nutrition," and Chapter 8, "Achieving a Healthy Weight," have been completely revised to include the latest, most comprehensive information available on nutrition and diet. See the next section for a detailed list of new topics.

New or Expanded Topics

We are committed to making this textbook the most up-to-date wellness text available. Following is a sampling of topics that are either completely new to this

edition or are covered in greater depth than in the previous edition:

Chapter 1: Wellness and Fitness for Life

- New presentation of the Prochaska stages of change model
- Updated information on the leading causes of death
- New information on the importance of choosing a wellness lifestyle regardless of age and health history
- Greater emphasis on the spiritual dimension of wellness
- New introduction to the benefits of a wellness lifestyle

Chapter 2: Preventing Cardiovascular Disease

- Simplified terminology and more accessible language
- New information on the childhood origins of heart disease
- Greater emphasis on heart disease risk factors and prevention
- New assessment that focuses on CVD risk factors that can be changed
- New discussion of obesity as a major risk factor that can be changed (new AHA classification)
- New information on emerging risk factors for heart disease
- New discussion of heart disease risk among postmenopausal women
- Expanded coverage of stress and personality type
- New discussion of hypertension among African Americans

Chapter 3: Increasing Cardiorespiratory Endurance

- New discussion of managing exercise-related problems
- New information on maintaining cardiorespiratory endurance as we age
- New section on exercising safely in an urban environment
- New tips on choosing home fitness equipment
- New information on ergogenic aids
- Updated information on VO_2 max based on the new ACSM guidelines
- Updated discussion of the health-related and performance-related components of fitness

Chapter 4: Building Muscular Strength and Endurance

- Expanded presentation of the benefits of training
- New discussion of the benefits of strength training for older adults
- Updated recommendations that reflect the 1998 ACSM guidelines

- New discussion of slow-twitch and fast-twitch muscle fibers, myofibrils, and motor units
- New section on ergogenic aids other than steroids, such as vitamins, sports drinks, weight-gain products, creatine, protein supplements, and herbal products
- Updated examples of exercise equipment

Chapter 5: Improving Flexibility

- Expanded coverage of low-back pain, upper-back pain, and neck pain
- New information on exercise to improve flexibility, including among children and the elderly
- New discussion of the emotional and physical benefits of yoga and tai chi
- New explanation of the principles of conditioning as they apply to flexibility
- New discussion of how flexibility exercises should be used during warm-up and cool-down

Chapter 6: Forming a Plan for Good Nutrition

- New food safety tips
- New tips on choosing healthful ethnic foods
- New section on vegetarianism
- Expanded coverage of the importance of water intake
- New section on botanicals, herbs, and phytomedicinals
- Expanded coverage of snacking, fast food, and other convenience foods
- Expanded coverage of vitamins
- New assessment on dietary fat intake
- New section on nutrition and disease prevention
- New section on nutrition during pregnancy
- New discussion of portion sizes
- New coverage of nutrition for activity
- Updated references, with 86 new citations from 1996 to 1999

Chapter 7: Improving Body Composition

- New coverage of body composition of children and adolescents
- New discussion of the importance of setting realistic fitness goals
- New section on subjective ways of determining overweight and body composition
- New information on the latest measurement devices
- New explanation of the margin of error of various measurement techniques
- Coverage of the new BMI guidelines
- New explanation of how to determine a realistic body fat percentage
- Presentation of a new technique used for bioelectrical impedance
- Updated discussion of height-weight tables
- New discussion of the importance of waist circumference alone as a risk for heart disease

Chapter 8: Achieving a Healthy Weight

- New illustration showing locations of body fat deposition
- Updated information on the latest fad diets, including herbal weight loss aids
- New discussion of preventing weight gain and body composition changes as you age
- New information on body image and self-esteem
- New section on recognizing signs of an eating disorder and getting help
- New discussion of exercise as the key to weight maintenance
- New tips for coping with supersize portions
- New tips for evaluating weight-loss schemes
- New section on weight-loss drugs and fasting

Chapter 9: Coping with and Managing Stress

- New “how-to” tips for dealing with stress
- New information on how spirituality affects stress and reduces the likelihood of illness and disease
- New coverage of work-related stress, including a discussion of child-care issues
- Expanded coverage of stress, the immune system, and illness and disease, including an explanation of the term *psychoneuroimmunology*

Chapter 10: Taking Charge of Your Personal Safety

- Updated death rates for motor vehicle accidents
- New information on medication overdoses among elderly adults
- New discussion of fostering healthy relationships, including a list of the characteristics of healthy relationships
- Greatly expanded coverage of recreational safety, including skateboarding, rollerblading, boating, jet-skiing, bicycling, and using trampolines
- Greatly expanded section on motor vehicle safety, including sport utility vehicles, use of cell phones while driving, road rage, drowsy driving, seat belts and airbags, and motorcycle safety
- New section on homicide
- New section on domestic violence, including partner abuse, child abuse, and elder abuse
- New section on hate crimes
- New discussion of the connection between alcohol and violent acts, such as rape

Chapter 11: Taking Responsibility for Drug Use

- New discussion of the genetic basis of addiction
- New presentation of alternatives to drug use
- New information on the dangers of alcohol use, drug use, and smoking during pregnancy
- New section on prescription and OTC drug abuse
- New assessment on drug use

- Expanded coverage of the dangers of secondhand smoke, smokeless tobacco, and cigars
- New coverage of drinking among college students, including binge drinking
- New section on drinking and driving
- New coverage of the resurgence of heroin use among young people

Chapter 12: Preventing Sexually Transmitted Diseases

- New section on communicating with your partner about STDs
- New discussion of assessing your own values about sex
- Greater emphasis on prevention and safer sex practices
- New information on hepatitis B and pelvic inflammatory disease
- Updated information on the newest drugs for treating HIV/AIDS
- New discussion of anonymous and confidential HIV testing, including home test kits
- New assessment that focuses on prevention

Chapter 13: Reducing Your Risk of Cancer

- New chapter that presents information on different types of cancer, including risk factors, risk reduction, early detection, treatment, and management
- New information on childhood cancers
- New discussion of living well with cancer
- New assessment on evaluating preventable risk factors
- New section that introduces the ABCD rule for detecting skin cancer

Chapter 14: Managing Common Conditions

- New discussion of chronic disease and aging
- New section on preventing common conditions
- New tips for living well with a chronic condition
- New assessment activity on managing asthma
- Updated treatment options for arthritis, headaches, and other conditions
- New coverage of inflammatory bowel disease

Chapter 15: Becoming a Responsible Health Care Consumer

- New tips for safe medication use among older adults
- New information on support groups, including on-line chat rooms, for various health conditions
- New section on complementary (alternative) medicine
- New tips for communicating with health care providers
- New section on evaluating health information on the internet

- New list of reliable on-line health and wellness newsletters
- New section on health care quackery

Successful Pedagogical Features

Wellness: Concepts and Applications continues to use a variety of learning aids to enhance student comprehension.

Key Terms: The most important terms for student retention have been set in boldface type in the text for easy identification.

Chapter Objectives: These are introduced at the beginning of each chapter. They help the student identify the chapter's key topics. Accomplishing the objectives indicates fulfillment of the chapter's intent.

Chapter Summaries: These identify the main parts of the chapter and reinforce the chapter objectives.

Review Questions: Questions are provided to help students review and analyze material for overall understanding.

References: Accurate and current documentation is given at the end of the chapters.

Suggested Readings: Additional current resources are provided for students to obtain further information.

Assessment Activities: Each chapter concludes with at least two Assessment Activities to help students apply the content learned in the chapter to their own decision making. The text is perforated for easy removal of the Assessment Activities.

Appendix: Food Composition Table—More than 1200 common foods and fast foods are analyzed. This comprehensive table will help students complete Assessment Activities in Chapter 6.

Glossary: A comprehensive glossary is provided at the end of the text that includes all key terms, as well as additional terms used in the text.

Supplements

An extensive package is available to adopters of *Wellness: Concepts and Applications*. The package has been developed to help the instructor obtain maximum benefit from the text.

Instructor's Manual and Test Bank

Each chapter begins with a brief overview of the content followed by a list of the objectives for that chapter. Detailed lecture outlines and additional class activities have been developed for each chapter, and each chapter concludes with a resource section, including relevant media, software, organization sources, and additional recommended readings. The test bank includes more than 2000 questions. The manual concludes with

65 full-page transparency masters of helpful illustrations and charts.

Computerized Test Bank

This software provides a unique combination of user-friendly aids that enable the instructor to select, edit, delete, or add questions as well as construct and print tests and answer keys. The computerized test bank package is available to qualified adopters of the text in Windows and Macintosh formats.

Overhead Transparency Acetates

A total of 60 of the text's most important illustrations, diagrams, tables, and charts are available as full-color transparency acetates. These useful tools facilitate learning and classroom discussion and were chosen specifically to help explain difficult concepts. This package is also available to qualified adopters of the text.

Fitness and Wellness Supersite

www.mhhe.com/hper/physed/fitness-wellness

At our Fitness and Wellness Supersite, you can find information about our books and telecourse, learn what conventions we plan to attend, and get updates to *Health Net* and *The AIDS Booklet*. The password-protected section of the site includes fitness and wellness news, downloadable personal assessments and lab activities, digitized still images, and a PowerPoint presentation created especially for *Wellness: Concepts and Applications*.

McGraw-Hill Online Learning Center

www.mhhe.com/anspaugh

The Online Learning Center for *Wellness: Concepts and Applications* is a great resource for you and your students. It offers downloadable ancillaries, such as a PowerPoint presentation that corresponds to each chapter in the book. Students can take on-line quizzes, find updated health information, and log on to interactive web links.

McGraw-Hill PageOut: The Course Web Site Development Center

PageOut is a program that enables you to easily develop a website for your course. The site includes a course home page, an instructor home page, a customizable syllabus, web links, discussion areas, an on-line grade book, student web pages, and sixteen design templates. This program is now available to registered adopters of *Wellness: Concepts and Applications*. If you adopt 200 or more copies per year of a McGraw-

Hill text, our technology experts will create your website for you in 30 minutes or less. For more information, log on to www.pageout.net/pageout.html.

FitSolve Software

This networkable software program helps students design and implement a personalized fitness program based on their unique needs. The program's colorful graphics and easy data entry system let students focus on content and concepts. It includes cholesterol measurement options, treadmill protocols for cardiovascular assessment, the 1.5-mile run test, the Rockport Fitness Walking Test, muscle endurance and flexibility tests, and a variety of body fat measurement options.

NutriQuest™ Software and Diet/Fitness Log

Available for Windows and Macintosh, this nutrient-analysis software allows easy analysis of dietary intake, using an icon-based interface and on-screen help features. Foods for breakfast, lunch, dinner, and snacks can be selected from more than 2250 items in the database. Records can be kept for any number of days. The program can provide intake analyses for individual foods, meals, days, or an entire intake period. Intake analyses can compare nutrient values to RDA or RNI values and to the USDA Food Guide Pyramid and can provide breakdowns of fat and calories sources. An accompanying diet and fitness log motivates students to track their progress. This software can be packaged with the text for a nominal fee.

TestWell: Making Wellness Work for You

TestWell is a self-scoring, pencil-and-paper wellness assessment booklet developed by the National Wellness Institute and distributed exclusively by McGraw-Hill. It adds flexibility to any personal health or wellness course by allowing instructors to offer pre- and post-assessments at the beginning and end of the course, or at any time during the semester.

Diet and Fitness Log

This log helps students assess their diet and physical activity habits. Week-long diet and fitness logs and ten workout strength logs invite students to develop life-long wellness programs by recording and evaluating their daily choices. Each log offers a brief introduction, followed by an evaluation section in which they can assess their improvements and setbacks.

Health Net: A Health & Wellness Guide to the Internet

This up-to-date booklet is your navigational tool for exploring the vast array of health and wellness resources on the internet. A helpful introduction provides general information about the internet. Each of the following sections in the booklet contains an annotated list of websites to supplement those given in the text.

Video Library

Choose from McGraw-Hill's videotape library, which includes selected Films for Humanities and all videos from the award-winning series *Healthy Living: Road to Wellness*.

The AIDS Booklet

This booklet, by Frank D. Cox, offers current, accurate information about HIV and AIDS: what it is, how the virus is transmitted, how the disease progresses, its prevalence among various population groups, symptoms of HIV infection, and strategies for prevention. Also included are discussions of the legal, medical, and ethical issues related to HIV/AIDS. This booklet ensures that your students have the most current information possible about this important topic.

Berkeley Wellness Letter

Available to qualified adopters, this highly regarded wellness newsletter keeps you informed of the latest developments in the field.

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Wellness and Fitness for Life

Key Terms

contracting	risk factor
countering	self-help
health-behavior gap	self-efficacy
health disparities	shaping up
lifestyle diseases	transtheoretical model of
locus of control	behavioral change
psychosomatic diseases	wellness

Objectives

After completing this chapter, you will be able to do the following:

- Discuss the wellness approach to healthy living.
- Identify benefits of living a wellness lifestyle.
- Describe the dimensions of wellness.
- Cite evidence of the relationship between physical health problems and social, emotional, and spiritual stressors.
- Identify health disparities that exist in the United States.
- Compare and contrast the major influences on the health of Americans today with those of Americans of the past.



- Implement four new health-promoting behaviors.
- Increase physical activity to improve overall wellness.
- Choose and implement three countering strategies.
- Formulate a self-help plan for lifestyle change.

- Identify and discuss the main wellness challenges for Americans.
- Identify obvious and subtle factors that help shape behavior.
- Discuss some of the underlying assumptions of lifestyle change.
- Identify and describe the six stages of change.
- Describe strategies that can be useful in designing and implementing an action plan for change.



Good health is one of our most cherished possessions, one that is often taken for granted until it is lost. Some people convincingly argue that everything else in life is secondary to good health. For many, it is not difficult to recall instances when life's goals, whether academic, career, or family, small or large, immediate or long-range, seemed unimportant because of sudden illness or a long-term debilitating health crisis.

Fortunately, the prospects of good health for Americans have never been better. The extent to which good health is realized is contingent on many factors. Chief among these factors are our actions and the choices we make. We can make choices that will promote health and well-being, prevent or delay the premature onset of many chronic illnesses, and improve our quality of life (see Real-World Wellness: Benefits of Living a Wellness Lifestyle). Staying healthy is not just a matter of common sense. Rather, it is a lifelong process that requires self-awareness, introspection, reflection, inquiry, accurate information, and action. This process relies on the concept of wellness and implies that each of us has the opportunity and the obligation to assume responsibility for factors that are under our control and to shape our health destiny. The wellness approach represents a formidable challenge because the processes leading to today's serious health threats are insidious, often originate in childhood or adolescence, flourish throughout adulthood, and finally culminate in full-blown disease in middle age or later. Lifestyle interventions that are initiated late in life produce limited success, but begun early in life they have maximum effect.

Components of Wellness

Wellness is defined as the continuous, active process of becoming aware of the different areas in one's life, identifying the areas that need improvement, and then making choices that will facilitate attainment of a higher level of health and well-being.¹ Wellness is a process rather than a goal. It means developing attitudes and engaging in behaviors that enhance quality of life and maximize personal potential. Although wellness implies working toward a highly developed level of health, it does not imply making the best choice in every situation or achieving "perfect wellness."

Consider the brief profiles of David, Susan, Carlos, and Maria. How would you rate each of them in terms of health and wellness?

David is physically active, places a high priority on his social life, barely makes passing grades in school, and engages in binge drinking almost every weekend. Susan is a perfectionist and her grades reflect it. To her, a B means



Real-World Wellness

Benefits of Living a Wellness Lifestyle

I am a full-time student, work twenty plus hours a week, and help with family responsibilities. At the same time, I'm trying to maintain my academic scholarship. There just isn't enough time in the day to be concerned about health and wellness. What am I to gain from a wellness lifestyle?

A wellness lifestyle offers the following benefits:

- Increases energy level and productivity at work and school
- Decreases absenteeism from school and work
- Decreases recovery time after illness or injury
- Supplies the body with proper nutrients
- Improves awareness of personal needs and the ways to meet them
- Expands and develops intellectual abilities
- Increases the ability to communicate emotions to others and to act assertively rather than aggressively or passively
- Promotes the attitude that life's difficulties are challenges and opportunities rather than overwhelming threats
- Acts from an internal locus of control
- Increases ability to cope with stress and resist depression
- Improves the cardiorespiratory system
- Increases muscle tone, strength, flexibility, and endurance
- Improves physical appearance
- Helps prevent or delay the premature onset of some forms of chronic disease
- Regulates and improves overall body function
- Promotes self-confidence
- Delays the aging process
- Promotes social awareness and the ability to reach out to, understand, and care about others

failure. She spends an inordinate amount of time studying, regularly skips meals, has no physical activity outlet, and rarely socializes. Her family tells her to "get a life." She needs the entire weekend to recover from the stress of academics. Carlos runs 3 miles every day, works out with weights 3 times a week, eats a balanced diet almost every day, has a close circle of friends, refuses to use his seat belt when driving, and smokes an average of two packs