

## **Fit & Well, 13e**

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### **Chapter by Chapter Changes**

#### **Chapter 1:** Introduction to Wellness, Fitness, and Lifestyle Management

- New Wellness in the Digital Age feature about health behavior tracking apps
- New information on the obesity epidemic and life expectancy, on the costs of cardiovascular disease (CVD), and on the importance of exercise in reducing CVD risk
- Updated statistics on leading causes of death, key contributors to death among Americans, changes in life expectancy, progress toward Healthy People 2020 targets, and health problems among college students

#### **Chapter 2:** Principles of Physical Fitness

- Updated American College of Sports Medicine (ACSM) recommendations for frequency, intensity, time, type, volume, and progression (FITT-VP) for fitness programs
- New and updated information on benefits of cardiorespiratory and neuromuscular fitness, on exercise as a means for reducing anxiety, and on good nutritional choices to support an exercise program
- New information on digital workout aids in the Wellness in the Digital Age feature and on fitness trackers in Lab 2.3
- New Physical Activity Readiness Questionnaire for Everyone (PAR-Q+) in Lab 2.1

#### **Chapter 3:** Cardiorespiratory Endurance

- New and expanded information on the cardiorespiratory system, on the benefits of endurance exercise, and on monitoring heart rate
- Updated discussion and illustration of ratings of perceived exertion (RPE), including the 0–10 scale
- Updated Wellness in the Digital Age feature about fitness trackers, heart rate monitors, and GPS devices
- Updated information on applying the FITT-VP principle to endurance training

#### **Chapter 4:** Muscular Strength and Endurance

- New section on supplements and drugs, including cautions related to anabolic steroids
- Expanded information on the process of hypertrophy and the role of the nervous system
- New table to guide program planning that includes muscle groups, major muscles and functions, and

related strength training exercises

- Updated information on applying the FITT-VP principle to strength training programs
- Updated coverage of weight training safety, strength training apps, and the McGill curl-up technique

#### **Chapter 5: Flexibility and Low-Back Health**

- Updated information on joint health and on exercises for low-back health
- Updated information on applying the FITT-VP principle to stretching programs

#### **Chapter 6: Body Composition**

- Updated statistics on obesity rates and trends in the United States
- Updated information on the complex relationship between energy intake and body weight
- Expanded discussion of factors that limit the accuracy of body mass index (BMI) as a tool for classifying health risks

#### **Chapter 7: Putting Together a Complete Fitness Program**

- New section on exercise guidelines for people with special health concerns, including asthma and diabetes (formerly in an appendix)
- Updated information on applying the FITT-VP principle
- Updated information on smartphone apps that support an exercise program

#### **Chapter 8: Nutrition**

- New section on the 2015–2020 Dietary Guidelines for Americans and its recommendations; new Take Charge feature with specific recommendations on making positive changes to meet the Guidelines
- Updated information on healthy dietary patterns, including recommended USDA food patterns and MyPlate
- New section on supporting healthy eating patterns through collaboration across all segments of society; includes the Social-Ecological Model of factors that interact to influence eating and physical activity and associated health outcomes
- New tables focused on dietary fiber and major dietary guidelines; new figure comparing the current U.S. diet versus recommendations
- New and updated information on added sugars, benefits of dietary fiber, nutrient density, vegetarian diets, and food and supplement labels
- Updated information on hydrogenation, trans fats, and the relationship between fats and health; on glycemic index and glycemic response; and on dietary needs of athletes

#### **Chapter 9: Weight Management**

- Updated discussion on the extent and implications of increasing rates of obesity/overweight worldwide and on the health effects of overweight/obesity; includes a new figure on the relationship between BMI and mortality
- New material on physiological factors—metabolism, hormones, fat cells, and gut microbiota—that affect body fat and body weight, as well as how changes in metabolic rate affect weight loss and maintenance
- New discussion of outside forces contributing to obesity and suggestions for making those forces more supportive of good health
- New information on energy balance and updated discussion of lifestyle factors—energy intake, dietary patterns, physical activity, and sleep—that affect body fat and body weight
- New Critical Consumer feature on research into dietary patterns that promote weight loss; new Take Charge feature on techniques for being active during screen time
- New and updated information on setting realistic goals, improving eating and activity habits for weight loss

and maintenance, using apps and wearables for weight management, and evaluating commercial weight-loss programs and prescription drugs

- Updated coverage of eating disorders

#### **Chapter 10: Stress Management and Sleep**

- New major section on sleep and its role in stress, including the biology of sleep, a new figure on the stages of sleep, sleep drivers, and updated features on overcoming insomnia and how digital devices may hinder or help a positive sleep experience
- New Lab 10.3: Evaluating and Improving Sleep
- New and updated information on factors influencing the individual's experience of stress, on personality and stress, on gender differences in stress, and on social stressors
- New Diversity Matters feature on diverse populations, discrimination, and stress
- New material on strategies for managing stress, including relaxation and body awareness and cognitive techniques such as problem solving and practicing affirmations; new Take Charge feature on mindfulness meditation

#### **Chapter 11: Cardiovascular Health and Diabetes**

- Expanded coverage of diabetes, including a new illustration of the underlying processes of normal and disrupted metabolism
- Updated statistics and information on cardiovascular disease (CVD) types, risk factors, and tobacco use and CVD, including e-cigarettes
- Updated guidelines for a heart-healthy diet

#### **Chapter 12: Cancer**

- New illustration of the stages in the development and spread of cancer; new material on genetic changes that contribute to cancer risk
- New section on associations between race/ethnicity, poverty, and cancer risk
- Updated statistics on cancer cases and deaths, and updated recommendations on mammography and breast awareness and on HPV vaccination
- New and updated information on standard and more experimental cancer treatments, including immunotherapies, hormone therapies, stem-cell transplants, and personalized or precision therapies
- New Common Questions Answered section on the types of cancers most common in young adults

#### **Chapter 13: Substance Use and Misuse**

- New sections on how the American Psychiatric Association defines and identifies substance misuse and addiction; on opioids and drug overdose deaths; and on evaluating the severity of alcohol use disorder
- Expanded discussion of addictive behaviors, including Internet gaming disorder, work addiction, and compulsive exercising
- Updated statistics and information on nonmedical drug use among Americans, medical marijuana, rates of binge drinking, and rates of tobacco use
- Updated information on use of hookahs and e-cigarettes, on effects of environmental tobacco smoke, on benefits of quitting smoking, and on smoking cessation products

#### **Chapter 14: Sexually Transmitted Infections**

- Updated statistics on major STIs, HIV/AIDS, HIV transmission, and use of condoms by college students
- Updated Diversity Matters feature on the global HIV/AIDS epidemic; updated Critical Consumer feature on HIV testing
- Updated information on HPV infection and vaccination and on treatment and prevention of STIs

## Chapter 15: Environmental Health

- Updated statistics on world population growth, components of solid waste, and the hole in the ozone layer
- Updated information about the greenhouse effect and global warming, including the primary economic sectors responsible for emission of greenhouse gases
- New information on lead poisoning and the drinking water crisis in Flint, Michigan

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