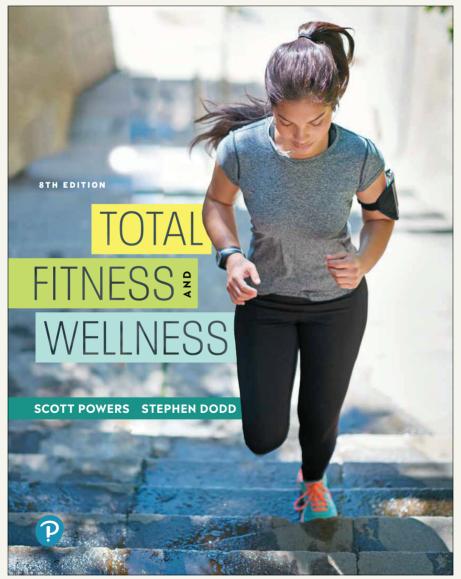
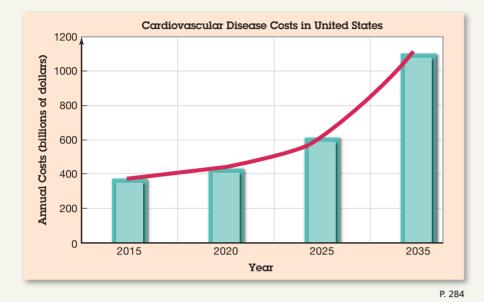
# Strengthen Students' Core Knowledge of Fitness and Wellness

**Total Fitness and Wellness** gives students a solid foundation in fitness and wellness, while providing them with the tools they need to make healthy behavioral changes and lifestyle choices. The **8th Edition** presents current research and topics of student interest such as eating disorders, stress-management strategies, Pilates, diabetes and pre-diabetes, and emotional health. MyDietAnalysis—a diet and activity tracking tool that gives students an easy way to analyze their physical activity and daily nutrient intake—is now included at no extra charge with **Mastering Health**.





# **Cover Current Research and ...**



Current research and statistics include objectives from Healthy People 2020 and myplate.gov. Coverage includes current topics of student interest such as eating disorders, stressmanagement strategies, barefoot running, Pilates, diabetes and pre-diabetes, ergogenic dietary supplements, athome fitness equipment, antioxidants, and emotional health.

**NEW! Expanded coverage of non-traditional workouts and modifications for special populations** ensure all students and fitness levels are included.

## EXAMINING THE EVIDENCE

## What Is CrossFit and Does It Work?

One of the latest trends in fitness programs is the incorporation of various activities performed at a high intensity into your routine. CrossFit, one such program, has become widely popular in recent years, with more than 10,000 affiliates worldwide. It is a training system that uses constantly varied, functional movements at relatively high intensity. It could be described as "high-intensity power training." CrossFit is also characterized as a community that develops when people perform these workouts together. The communal aspect is credited as being a key part of the program's success. Is CrossFit effective in improving aerobic endurance and body composition? A recent study addressed this question (22). Researchers tested male and female subjects across a range of initial fitness levels and then trained them for 10 weeks using the CrossFit system. The study found that all subjects, no matter the initial fitness level, increased  $\dot{V}O_2$  max by 12% to 14%. In addition, body fat decreased 13% to 19%. Thus, it appears that high-intensity power training can be an effective way to improve fitness and serve as a beneficial addition to your workout program. You can learn more at www.crossfit.com

# **Offer Labs that Interest Students**

#### Integration of fitness assessment lab material

throughout the book aligns the assessments with the topics from the text.

### laboratory 6.1

do it! LABS Complete Lab 6.1 online in the study area of Masterina Health

#### Scan to view the exercise demonstration videos.

Date \_

#### **Assessing Body Composition**

EQUIPMENT

Tape measure, skinfold caliper, scale

#### DIRECTIONS

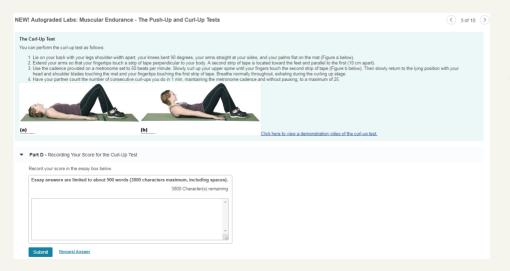
Name

Complete the assessments described below as directed by your instructor. Then record your body composition data and weight classifications for skinfold, waist circumference, waist-to-hip ratio, BMI, and/or other measures in the spaces below.

SKINFOLD TEST



P. 177



#### Auto-graded, assignable

**labs** address current trends such as social networking, time management (page 327), and substance abuse addiction (pages 422–423), and allow students to apply textual information to practical issues, encouraging the immediate development of healthy lifestyle choices and a core fitness plan.

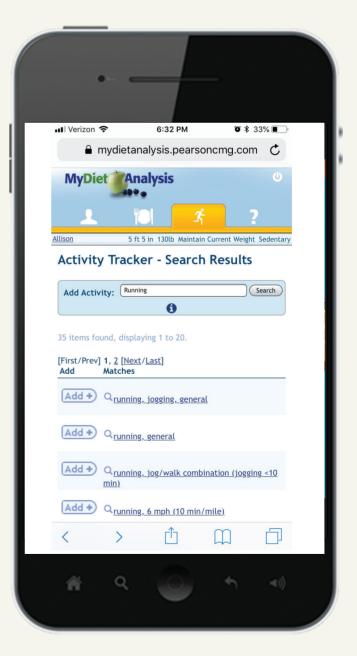
# Help Students Track their Physical Activity and Daily Nutrient Intake



With MyDietAnalysis, students can track their diet and activity intake accurately—even from the gym—from any device!

## **NEW!** MyDietAnalysis is included with Mastering Health at no additional

**charge,** and offers an up-to-date, accurate, reliable, and easy-to-use program for your students to track and analyze their physical activity and daily nutrient intake.



# **Encourage Behavior Change**

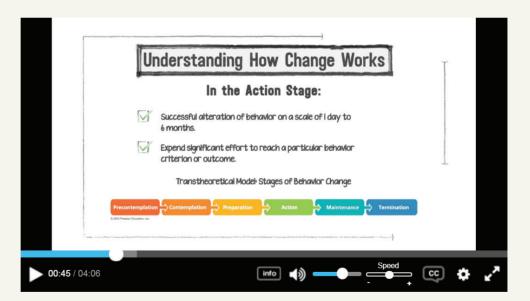
ster	STEPS FOR BEHAVIOR CHANGE	
	Do you have trouble making healthy behavior changes?	
	Answer the following questions about your typical efforts to change a health behavior.	
Y N		
	Do you have a specific game plan?	
	Do you get help from your friends and family?	
	Do you set goals?	
	Do you reward yourself for your successes?	
If you answered no to most or all of the questions, then you should consider using the behavior change contract in the front of the text.		

#### **Steps for Behavior**

**Change** focus students on evaluating their own behaviors (e.g., Are you a fast food junkie? Are you reluctant to strength train? Do you protect your skin from UV light?) and present them with practical steps they can take to make meaningful behavior change.

#### **Behavior Change**

Videos quide students through the best tips and practices to put better decision making into action and review basic fitness concepts. These concise whiteboard-style videos help students with the steps of behavior change, covering topics such as setting SMART goals, identifying and overcoming barriers to change, planning realistic timelines, and more. All videos include assessment activities and are assignable in Mastering Health.



P. 17

# **Coach Students Through the Course**

## coaching CORNER

A n important principle associated with a successful exercise program is consistency. If you have always considered fitness optional, it may be helpful to reframe that thought process. Consider adopting the mantra that daily exercise is nonnegotiable.

- Schedule your exercise sessions at convenient times of day to ensure consistency.
- Create a schedule of fitness activities that includes several options for cardiorespiratory, strength, and flexibility training.
- Exercise with friends when possible—this enhances both the physical and social dimensions of wellness.
- Develop a backup plan for days when you are less motivated. Some activity is always better than no activity.

#### **Coaching Corner** gives

students practical fitness and wellness advice and strategies to help them put their changes into action.



#### **Exercise Videos**

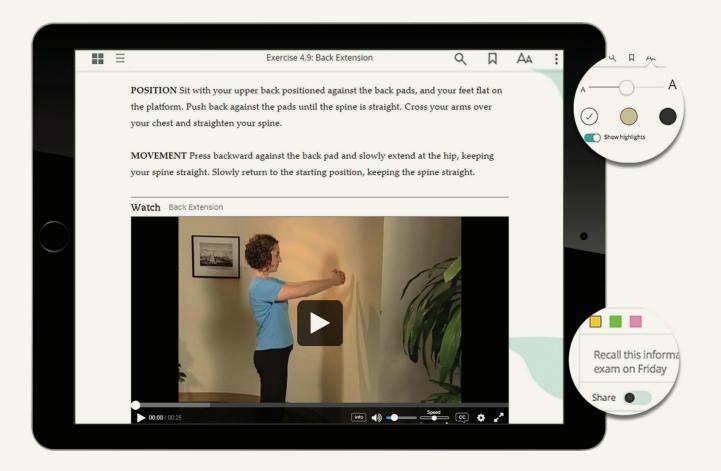
feature demonstrations of strength training and flexibility exercises, with a focus on safety and adaptive techniques for at-home workouts. The videos feature resistance bands, stability balls, free weights, and machines allowing users a wide variety of exercises to choose from based on their individual preferences and access to equipment.



# Give Students Anytime, Anywhere Access with Pearson etext

**Pearson eText** is a simple-to-use, mobile-optimized, personalized reading experience available within Mastering. It allows students to easily highlight, take notes, and review key vocabulary all in one place—even when offline. Seamlessly integrated videos and other rich media engage students and give them access to the help they need, when they need it. Pearson eText is available within Mastering when packaged with a new book; students can also purchase Mastering with Pearson eText online.

For instructors not using Mastering, Pearson eText can also be adopted on its own as the main course material.



# **Instructor Support You Can Rely On**

**Total Fitness and Wellness** includes a full suite of instructor support materials in the Instructor Resources area in Mastering Health, including an Instructor's Resource and Support Manual, Test Bank, and editable labs.

Instructor Resources Contents			
eText	Ø		
Downloads			
Resources by Chapter Links to downloadable resources for each chapter.	0		
Instructor's Resource and Support Manual	•		
Test Bank	•		
Labs	•		

Each chapter also includes numerous PowerPoint presentations, including accessible lecture presentations with and without media, and all labeled and unlabeled images from the text.

PowerPoint Presentation Tools			
Chapter 6 Accessible Lecture Presentation zip, 2.9 MB			
Note: The Microsoft Accessibility Checker may flag a table without alt text as an error; however, true tables can be read by screen readers and are accessible. Contact disability.support@pearson.com with questions.	•		
Chapter 6 Lecture Presentationzip, 6.5 MB	٩		
Chapter 6 Lecture Presentation with Embedded Media zip, 102.3 MB	•		
Chapter 6 Clicker Questions zip, 791 KB	0		
Chapter 6 Quiz Show zip, 113 KB	0		
Chapter 6 Step Edit zip, 309 KB	9		
JPEG Images			
Chapter 6 JPEG Images zip, 5.3 MB			
Labeled and unlabeled images from the text.	C.		
Chapter 6 Tables zip, 335 KB	0		

# Preface

Good health is our most precious possession. However, it is important to appreciate that good health is not simply the absence of disease. This fact led health professionals to revise the concept of good health and to introduce a new term—wellness, which includes not only good physical health but also involves excellent emotional, intellectual, spiritual, social, and environmental health. Importantly, our daily lifestyle choices can have a major impact on our ability to achieve wellness.

Intended for an introductory college course, *Total Fitness and Wellness* focuses on aiding students to effect positive changes in their lifestyles, most notably in exercise and diet. The interaction of exercise and diet and the essential role of regular exercise and good nutrition in achieving total fitness and wellness are major themes of the text.

Total Fitness and Wellness was built on a strong foundation of both exercise physiology and nutrition. The text provides clear, objective, research-based information to college students during their first course in physical fitness and wellness. By offering a research-based text, we hope to dispel many myths associated with exercise, nutrition, weight loss, and wellness. In particular, we show students how to evaluate their own wellness level with respect to various wellness components, such as fitness level and nutritional status. Indeed, the title of the book reflects our goals.

Numerous physical fitness and wellness texts are available today. Our motivation in writing *Total Fitness and Wellness* was to create a unique, well-balanced physical fitness and wellness text that covers primary concepts of physical fitness and wellness, and also addresses other important issues such as behavior change, exercise-related injuries, exercise and the environment, and prevention of cardiovascular disease.

## **New to This Edition**

Total Fitness and Wellness, 8th Edition maintains many features that the text has become known for, while incorporating several major revisions, exciting new features, and a more explicit connection between the text and multimedia resources in Mastering Health. Mastering Health is an online homework, tutorial, and assessment product designed to improve results by helping students quickly master concepts. Students benefit from self-paced tutorials that feature immediate wrong-answer feedback and hints that emulate the office-hour experience to help keep students on track. With a wide range of interactive, engaging, and assignable activities, students are encouraged to actively learn and retain tough course concepts. The multimedia created for 8th Edition is more innovative and interactive than ever and a tighter text-Mastering Health integration provides students the opportunity to master course content using a variety of resources on and off the page, reflecting the manner in which students study today.

The most hallmark features and noteworthy changes to the text and multimedia as a whole include the following:

- Numbered learning outcomes introduce every chapter giving students a roadmap for their reading. Each chapter concludes with a Study Plan, which summarizes key points of the chapter and provides review questions to check understanding, all tied to the chapter's learning outcomes and assignable in Mastering Health.
- Examining the Evidence feature boxes give the reader insight into special topics such as the effects of caffeine, the search for a cure for AIDS, muscle cramps, and anabolic steroid use.
- Creating Your Total Fitness and Wellness
  Plan (Chapter 7) provides students with practical, step-by-step instructions on developing and putting fitness and wellness plans into action.
- MP3 Chapter Reviews are assignable in Mastering Health.
- The book's design and layout have been thoroughly revitalized for today's students. In addition to new photos and figures, the end-of-chapter labs and sample exercise prescription programs have been redesigned.
- Suggested Readings have been moved from the back of book and integrated into the end-ofchapter content to be more visible and useful for students.
- *ABC News* Videos, all referenced in the book with See It! callouts, bring fitness and wellness to life and spark discussion with up-to-date hot topics. Mastering Health activities tied to the videos include multiple choice questions that provide wrong-answer feedback to redirect students to the correct answer.
- Pearson eText complete with embedded Exercise videos and ABC News videos, is mobile friendly and ADA accessible.
  - Now available on smartphones and tablets.
  - Seamlessly integrated videos.
  - Accessible (screen-reader ready).
  - Configurable reading settings, including resizable type and night reading mode.
  - Instructor and student note-taking, highlighting, bookmarking, and search.

## **Chapter-by-Chapter Revisions**

The 8th Edition has been thoroughly updated to provide students with the most current information and references for further exploration and includes a tighter integration between the text and multimedia resources in Mastering Health. Portions of chapters have been reorganized to improve the flow of topics, and figures, tables, feature boxes, and photos have all been added, improved on, and updated. Throughout the text, all data, statistics, and references have been updated to the most recent possible. The following is a chapter-by-chapter listing of some of the most noteworthy changes, updates, and additions.

### Chapter 1:

- This chapter underwent major revision to improve both content and student understanding
- Includes the latest statistics on life expectancy in the United States and new information about the factors that contribute to longevity
- Contains new content on the number of American adults that engage in the recommended amount of exercise to promote health
- Expanded coverage on the health hazards of prolonged sitting and discussion of workstation alternatives to conventional sitting workstations
- Updated "Suggested Readings," "Weblinks," and "References"

### Chapter 2:

- New Consumer Corner discussing buying considerations for fitness trackers
- New information added on the percentage of Americans that engage of healthy exercise activities
- Updated "Suggested Readings," "Weblinks," and "References"

### Chapter 3:

- Consolidation of "Make sure you know" summaries
- New information on "Warm Up" exercises
- New information on injuries in Crossfit training
- Consolidation of QR codes linked to videos to facilitate use by the reader
- Updated "Suggested Readings," "Weblinks," and "References"

### Chapter 4:

- Consolidation of "Make sure you know" summaries
- Consolidation of QR codes linked to videos to facilitate use by the reader
- Updated "Suggested Readings," "Weblinks," and "References"

### Chapter 5:

- Consolidation of "Make sure you know" summaries
- New video of leg stretching added
- New analysis of sitting posture added
- New "Appreciating Diversity" box added (Can Flexibility Be Maintained During Pregnancy?)
- Consolidation of QR codes linked to videos to facilitate use by the reader
- Updated "Suggested Readings", "Weblinks" and "References"

### Chapter 6:

- Consolidation of "Make sure you know" summaries
- New information added to describe the health risks associated with obesity
- Consolidation of QR codes linked to videos to facilitate use by the reader
- New data for Figure 6.3 on U.S. obesity rates
- Updated "Suggested Readings," "Weblinks," and "References"

### Chapter 7:

- Consolidation of "Make sure you know" summaries
- Updated Table 7.1 to provide overview of apps to monitor fitness levels
- Updated "Suggested Readings," "Weblinks," and "References"

### Chapter 8:

- This chapter underwent major revision to improve both content and student learning
- New and expanded information on the role that specific omega-3 fatty acids play in the prevention of heart disease
- New information about the protein requirements for athletes and physically active people
- Latest information on dietary supplements
- New research on antioxidant benefits
- New information on prebiotics/probiotics and the human microbiome
- Addition of several new figures to improve student learning
- Updated "Suggested Readings," "Weblinks," and "References"

### Chapter 9:

- Latest research on the role that ingestion of fructose plays in fat weight gain
- New information on the recommended percentage of body fat across the life span

- Latest information on the new FDA-approved prescriptions for weight loss
- Updated information about those factors that regulate appetite
- Latest information on the CDC recommendations for weight loss
- New research on the success rate for commercial weight loss plans
- Updated "Suggested Readings," "Weblinks," and "References"

#### Chapter 10:

- Latest statistics on the incidence of cardiovascular disease in the United States
- New information on the estimates of the health care costs associated with cardiovascular disease
- New "Examining the Evidence" box discussing "Can regular exercise offset the negative health consequences of prolonged sitting?"
- Updated "Suggested Readings," "Weblinks," and "References"

#### Chapter 11:

- Consolidation of "Make sure you know" summaries
- New videos demonstrating breathing exercise
- Added new information on stress management
- Updated "Suggested Readings," "Weblinks," and "References"

#### Chapter 12:

- Consolidation of "Make sure you know" summaries
- Reorganization of Lab 12.2
- Updated "Suggested Readings" and "References"

#### Chapter 13:

- Latest statistics on incidence of cancers in the United States
- New information describing the main types of cancers
- Expanded discussion of carcinogens
- New "Examining the Evidence" highlighting the evidence that regular exercise reduces the risk of 13 different cancers
- New discussion on the role that the hepatitis B virus plays in development of liver cancer
- Updated "Suggested Readings," "Weblinks," and "References"

#### Chapter 14:

- Updated information on the stages of HIV/AIDS.
- Latest statistics on the incidence of major STIs in the United States and around the world.
- Expanded discussion on the treatment of hepatitis B
- Updated "Suggested Readings," "Weblinks," and "References"

#### Chapter 15:

- New information on problem gambling
- Latest statistics on rates of drug addiction in United States
- Latest research on the influence of opioid abuse on the body
- Expanded discussion on the health effects of e-cigarettes
- New information on the health effects of long-term use of caffeine
- Updated "Suggested Readings," "Weblinks," and "References"

## Text Features and Learning Aids

In addition to the new and revised features described above, continuing features and learning aids in the book that contribute to student success include:

- Lab exercises allow students to apply textual information to practical issues, encouraging the immediate development of healthy lifestyle choices and a core fitness plan.
- Sample fitness and wellness programs offer easyto-follow instructions for implementing successful fitness and wellness programs.
- Coaching Corner boxes represent the "teacher's voice" throughout the text, offering helpful hints and strategies to overcome fitness and wellness obstacles.
- Consumer Corner boxes teach students to be informed and discerning health and fitness consumers, guiding them to make the best fitness and wellness decisions in a market full of fads, gimmicks, and gadgets.
- Appreciating Diversity boxes present current health research, covering issues such as how the risk of cancer varies across the United States and how the incidence of drug abuse varies across populations.

- Steps for Behavior Change boxes focus students on evaluating their own behaviors (e.g., Are you reluctant to strength train?, Do you protect your skin from UV light?). New timelines present students with practical steps they can take to make meaningful behavior change.
- Consider This! grabs students' attention with surprising statistics and information, prompting them to pause and consider the long-term consequences of specific health behaviors.

## **Instructor Supplements**

A full resource package accompanies *Total Fitness and Wellness* to assist the instructor with classroom preparation and presentation.

Mastering Health

(www.masteringhealthandnutrition.com or www.pearsonmastering.com). Mastering Health coaches students through the toughest fitness and wellness topics. Instructors can assign engaging tools to help students visualize, practice, and understand crucial content, from the basics of fitness to the fundamentals of behavior change. Coaching Activities guide students through key health concepts with interactive mini-lessons, complete with hints and wrong-answer feedback. Reading Quizzes (20 questions per chapter) ensure students have completed the assigned reading before class. ABC News Videos stimulate classroom discussions and include multiple-choice questions with feedback for students. NutriTools Coaching Activities in the nutrition chapter allow students to combine and experiment with different food options and learn firsthand how to build healthier meals. MP3s relate to chapter content and come with multiple-choice questions that provide wrong-answer feedback. Learning Catalytics provides open-ended questions students can answer in real time. Through targeted assessments, Learning Catalytics helps students develop the critical thinking skills they need for lasting behavior change. For students, the Study Area is broken down into learning areas and includes videos, MP3s, practice quizzing, and much more.

Instructional Resources (Download Only) The instructional resources available for downloading in the Mastering Health Instructor Resources area include everything an instructor needs to prepare for their course and deliver a dynamic lecture in one convenient place. Resources include: *ABC News* videos; exercise videos; clicker questions; Quiz Show questions; PowerPoint lecture outlines; all figures and tables from the text; PDF and Microsoft Word files of the *Instructor Resource and Support Manual;* PDF, RTF, and Microsoft Word files of the Test Bank; the Computerized Test Bank; the User's Quick Guide; and *Teaching with Student Learning Outcomes, Teaching with Web 2.0, Great Ideas! Active Ways to Teach Health and Wellness, Behavior*  *Change Log Book and Wellness Journal, Eat Right! Live Right!, and Take Charge of Your Health worksheets.* 

- *ABC News* Videos and Video Tutors. *ABC News* videos, each 3 to 8 minutes long, help instructors stimulate critical discussion in the classroom. Videos are embedded within PowerPoint lectures and are also available separately in large-screen format with optional closed captioning through MasteringHealth.
- Instructor Resource and Support Manual. This teaching tool provides chapter summaries, outlines, integrated ABC News video discussion questions, in-class discussion questions, and more.
- Test Bank. The Test Bank incorporates Bloom's Taxonomy, or the higher order of learning, to help instructors create exams that encourage students to think analytically and critically, rather than simply to regurgitate information. Test Bank questions are tagged to global and book-specific student learning outcomes.
- *Teaching with Student Learning Outcomes.* This publication contains essays from 11 instructors who are teaching using student learning outcomes. They share their goals in using outcomes, the processes that they follow to develop and refine the outcomes, and provide many useful suggestions and examples for successfully incorporating outcomes into a personal health course.
- *Teaching with Web 2.0.* From Facebook to Twitter to blogs, students are using and interacting with Web 2.0 technologies. This handbook provides an introduction to these popular online tools and offers ideas for incorporating them into your personal health course. Written by personal health and health education instructors, each chapter examines the basics about each technology and ways to make it work for you and your students.
- Great Ideas! Active Ways to Teach Health & Wellness. This manual provides ideas for classroom activities related to specific health and wellness topics, as well as suggestions for activities that can be adapted to various topics and class sizes.
- Behavior Change Log Book and Wellness Journal. This assessment tool helps students track daily exercise and nutritional intake and create a longterm nutritional and fitness prescription plan. It also includes a Behavior Change Contract and topics for journal-based activities.

## **Student Supplements**

#### **Mastering Health**

**The Study Area of Mastering Health** is organized by learning areas within the Study by Chapter section." after "by learning areas. The *Read It!* section contains the Learning Outcomes and up-to-date health news. *See It!*  includes ABC News videos on important health topics and Behavior Change videos. More than 100 exercise videos demonstrate strength training and flexibility exercises with resistance bands, stability balls, free weights, and gym machines. The exercise videos are also available for download onto iPods or media players. Hear It! contains MP3 Study Tutor files and audio case studies. Do It! contains the choose-your-own-adventure-style interactive "Behavior Change Activities-Which Path Would You Take?", interactive NutriTools activities, and Web links. Also in this section is a pre-course/post-course assessment that lets students evaluate their own fitness and wellness status both before and after taking the course. New interactive labs are also available online to students, allowing them to assess their levels of fitness and wellness, learn core skills, and develop behavior change plans to track their progress. Students can easily complete the labs and e-mail them to you directlyeliminating the need for paper entirely.

*Review It!* contains Practice Quizzes for each chapter, Flashcards, and Glossary. *Live It!* will help jump-start students' behavior-change projects with interactive Assess Yourself Worksheets and resources to plan change; students can fill out a Behavior Change Contract, journal and log behaviors, and prepare a reflection piece.

**Pearson eText** included within Mastering Health, contains embedded *ABC News* videos and other rich media, is mobile friendly and ADA accessible, is available on smartphones and tablets, and includes instructor and student note-taking, highlighting, bookmarking, and search functions.

#### Behavior Change Log Book and Wellness Journal,

found within the *Live It*! section in Mastering Health, helps students track daily exercise and nutritional intake and create a long-term nutrition and fitness prescription plan. It includes Behavior Change Contracts and topics for journal-based activities.

#### Additional Student Supplements

**MyDietAnalysis** (www.mydietanalysis.com). Powered by ESHA Research, Inc., MyDietAnalysis features a database of nearly 50,000 foods and multiple reports. It allows students to track their diet and activity using up to six profiles and to generate and submit reports electronically. MyDietAnalysis is available at no additional cost in Mastering Health, as well as sold separately as a standalone purchase for those who do not use Mastering Health.

### **Acknowledgments**

First and foremost, this edition of *Total Fitness and Wellness* reflects the valuable feedback provided by many people throughout the country. As always, this edition could not

have been completed without the work of an enormous number of people at Pearson. From the campus sales representatives to the president of the company, they are truly first rate, and our interaction with them is always delightful.

There were several key people in the process. Our Editor, Michelle Yglecias, has been the primary force behind assembling the team and directing the process, and her input has been invaluable. Several new additions to the team have been important in both the revisions of the text and the production process. In particular, the authors would like to thank Susan McNally for significant contributions to this eighth edition. Moreover, special thanks go to Nic Albert and Abby Manheim, for their careful editing, and to Marisa Taylor and Rose Kernan, who served as the Project Team Leaders. Other specific duties were expertly handled by the following professionals; we offer them our utmost appreciation for their efforts: Director of Product Marketing, Allison Rona; Executive Field Marketing Manager, Mary Salzman Editorial Assistant, Gillian Perry Rights and Permissions Project Manager, Eric Schrader (SPi-Global) and Branden Nygen (University of Florida) have made major contributions to the book content.

Finally, there is a long list of professionals whose reviews of the text's content and style or participation in a fitness and wellness forum have helped to shape this book. We owe these individuals a tremendous debt of gratitude:

Peter Morano, Central Connecticut State University Patrick Schneider, Belmont University Amy Howton, Kennesaw State University Sarah Kuzmiak-Glancy, University of Maryland Michael Dupper, University of Mississippi Brian Brabham, University of Mary Hardin-Baylor Ben Hurley, University of Maryland Louise So, Glendale Community College Glenna Morelock, College of Central Florida Kendra Zenisek, Ball State University Kenneth Turley, Harding University Dr. Debra Burton, College of Central Florida

Many thanks to all!

**Scott K. Powers** *University of Florida* 

**Stephen L. Dodd** *University of Florida*