

Questions and Answers

A Guide to Fitness and Wellness

What can I do to get
more energy?

Why is **behavior
change** so hard?

Will **exercise**
make me live longer?

What's my
ideal weight?

How do I know if I'm eating
the **right amounts** of the
right things?

How can I manage my
time better?

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Gary Liguori
Sandra Carroll-Cobb

2

Have you ever wondered...

How can I reduce my body fat?

See Chapter 7, "Body Composition"



Are there ways I can lower the stress in my life?

See Connect Fitness and Wellness, Chapter 10, Behavior-Change Challenge Video Activity

When is the best time of day to work out?

See Connect Fitness and Wellness, Chapter 3, Myth/Fact Video Activity

How many days a week should I work out?

See Chapter 5, "Muscle Fitness"



How many calories do I need each day?

See Chapter 9, "Eating for Wellness and Weight Management"

How do I read a food label?

See Chapter 8, "Nutrition Basics"

What are some ways I can get myself moving?

See Connect Fitness and Wellness, Chapter 3, Lab 3.3: Overcoming Barriers to Physical Activity

So I want to change an unhealthy behavior - How do I get started?

See Connect Fitness and Wellness, Chapter 2, Lab 2.1: Goals and Strategies for Change



If so, you're not alone. Students have posed these questions—along with hundreds of others—to Gary Liguori and Sandra Carroll-Cobb. These questions are the framework upon which *Questions and Answers* is built.

How It All Started

Questions and Answers is built on questions—real questions from real students about real issues they encounter in regard to their fitness and wellness. Author Gary Liguori learned the power of a questions-based book firsthand when his wife was pregnant with their first child. As he and his wife turned again and again to *What to Expect When You're Expecting* to answer their questions about pregnancy and parenthood, he began to imagine a fitness and wellness text organized around a similar framework.

“Most books out there were too methodical to interest students. I wanted to create a book that would address real-life questions about actual student challenges, like coursework overload, balancing school and personal issues, and budgeting for food.” - Gary Liguori

How *Questions and Answers* was Developed

The questions that form the scaffolding for *Questions and Answers* were collected from students in two- and four-year schools across the United States. This initiative yielded an enormous number of questions—more than 1,000—that were then organized into topic headings and chapters. Every discussion in the text is a response to one of these questions, ensuring that all of the content in *Questions and Answers* is relevant to students' lives.

“When introduced to Gary's idea about shaping the content of a text around actual student questions, I was thrilled. I thought to myself, this could be a textbook students will actually want to read.” - Sandra Carroll-Cobb

What *Questions and Answers* Provides

Beyond its innovative Q/A format, *Questions and Answers* offers meaningful features and online activities, housed on the Connect platform, that help students become savvy consumers, skillful critical thinkers, and behavior-change experts. Other features of Connect for *Questions and Answers* include an integrated multimedia e-book, the unparalleled LearnSmart adaptive assessment program, video activities, and online labs and health assessments to enable students to practice and apply key skills and concepts.

“The Q/A format featured in *Questions and Answers*, combined with the critical-thinking and behavior-change focus, makes it a uniquely valuable resource. Instructors can direct students to focus on their most personal questions and then bring the discussion back to the entire class, for a student-centered learning experience.” - Gary Liguori



Gary Liguori, PhD, is a Fellow of the American College of Sports Medicine and recent Chair of the Health Fitness Specialist subcommittee. Gary has been on Health/Exercise Science faculty at the University of Wyoming, Youngstown State University, and North Dakota State University. He is currently the Department Head for Health and

Human Performance at the University of Tennessee Chattanooga. Gary has received numerous peer and student-driven awards for his teaching and advising, and has taught in The Netherlands on an international exchange. Gary's research is focused on metabolic disease risk and prevention and his research has been published in a range of journals. Gary also serves as a reviewer for a number of journals and annual meetings, in addition to having traveled around the world for various presentations. Gary is very committed to helping his local community stay active.



Sandra Carroll-Cobb has been teaching health and physical education classes in schools, businesses, and medical facilities for over 20 years. She has presented at a number of state, regional and national conventions and has served the national committees of several professional organizations. At the University of Alaska

Anchorage since 2000, Dr. Carroll-Cobb has served as faculty, interim associate dean, and interim dean. During this time she has remained active with health and physical activity programs throughout the community and state. She has served on the Conoco-Phillips Healthy Futures Advisory Board, worked as a statewide trainer for the Alaska Department of Education & Early Development Team Nutrition grant, served as a PEP grant evaluator for the Anchorage School District, and was a contributor to the Alaska School Health and Safety Plan. She currently serves as Chair and Associate Professor in the Department of Health, Physical Education & Recreation. She is active on the Steering Committee for the State of Alaska Cardiovascular Health Coalition (Take Heart Alaska); the Executive Board of the Alaska Association for Health, Physical Education, Recreation and Dance; and the Anchorage Community YMCA Advisory Board.

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Questions *and* Answers

A Guide to Fitness and Wellness

Second Edition

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University of Tennessee, Chattanooga

Sandra Carroll-Cobb

University of Alaska, Anchorage





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Contents

1 Introduction to Health, Wellness, and Fitness 1

Personal Health and Wellness 2

- Evolving Definitions of Health 2
- Actively Working Toward Wellness 3
- Discovering Dimensions of Wellness 4
- Integrating the Dimensions: Recognizing Connections and Striving for Balance 9

Health in United States: The Bigger Picture 11

- Measures of Health and Wellness 11
- The National Healthy People Initiative 13
- Leading Causes of Death 13
- Health and Wellness on Campus 16

Factors Influencing Individual Health and Wellness 16

- Wellness Behavior Choices 17
- Other Factors That Influence Wellness 23
- Wellness: What Do You Want for Yourself—Now and in the Future? 25

Summary 26

More to Explore 26

LAB ACTIVITY 1-1 Wellness Lifestyle Assessment 27

LAB ACTIVITY 1-2 Dimensions of Wellness Self-Evaluation 31

2 Positive Choices/Positive Changes 33

Factors Influencing Health Behavior and Behavior Change 34

- Factors Inside and Outside Your Control 34
- Predisposing, Enabling, and Reinforcing Factors 36
- Motivation for Behavior Change 38
- Locus of Control: Do You Feel in Charge? 38
- Self-Efficacy: Do You Anticipate Success? 39

- Goal Setting: What Are You Trying to Achieve? 40
- Decisional Balance: What Are the Pros and Cons of Change? 42

The Behavior-Change Process: The Transtheoretical Model 42

- Stages of Change 43
- Processes and Techniques of Change 45

Overcoming Common Barriers to Change 48

- I Don't Have Enough Time 49
- I Can't Get Motivated 49
- I'll Get Around to Changing—Later 49
- I Don't Know How 50
- I Don't Have Enough Money 50
- I Lack Willpower 51
- It's Too Hard—and No Fun 51
- I'm Too Tired 51
- I Can't Say "No" 51
- I Have a Negative Outlook 52
- I Don't Feel Supported 53
- I Do OK at First and Then Backslide 53

Developing a Personalized Behavior-Change Program 54

1. Complete a Pros-Versus-Cons Analysis 54
2. Monitor Your Current Behavior 54
3. Set SMART Goals and Plan Rewards 55
4. Develop Strategies for Overcoming Obstacles and Supporting Change 55
5. Identify Helpers and Resources 56
6. Put Together Your Program Plan 56
7. Make a Commitment . . . and Act on It 56
8. Track Your Progress and Modify Your Plan as Needed 56

Summary 58

More to Explore 58

LAB ACTIVITY 2-1 Goals and Strategies for Change 59

LAB ACTIVITY 2-2 Program Plan for Behavior Change 63

3 Fundamentals of Physical Fitness 65

Physical Fitness, Physical Activity, and Exercise 66

- Types of Fitness 67
- Skill-Related Fitness 69
- Health-Related Fitness 70

Assessing Physical Activity and Fitness 72

- Medical Clearance 72
- Assessing General Physical Activity Levels 74
- Assessing Fitness 74

Principles of Training 74

- Progressive Overload 75
- Reversibility 75
- Recovery 75
- Specificity 76
- Individuality 76
- The FITT Formula 76
- Putting Together a Complete Workout 78
- Putting Together a Complete Program 80

Other Considerations When You're Starting a Fitness Program 80

- Clothing and Safety Gear 81
- Exercise Equipment and Facilities 83
- Weather 86
- Air Quality 88
- Injury Prevention and Management 91

Summary 92

More to Explore 92

LAB ACTIVITY 3-1 Exercise Safety: PAR-Q and General Health Profile 93

LAB ACTIVITY 3-2 A Pedometer-Based Program for Increasing Physical Activity 95

LAB ACTIVITY 3-3 Overcoming Barriers to Physical Activity 99

4 Cardiorespiratory Fitness 101

Factors Affecting Cardiorespiratory Fitness 102

- The Condition of the Cardiorespiratory System 102
- Energy Production 106
- The Three Energy Systems 106
- Diseases Affecting the Cardiorespiratory System 108
- Genetics 109
- Biological Sex 110
- Use and Age 110

Benefits of Cardiorespiratory Fitness 111

- Improved Performance 111
- Reduced Risk of Disease 112
- Healthier Body Composition 113
- Stress Management and Improved Emotional Wellness 114

Assessing Your Cardiorespiratory Fitness 114

- Types of Cardiorespiratory Fitness Tests 114
- Evaluating Assessment Results and Setting Goals 116

Creating a Cardiorespiratory Fitness Program 116

- Getting Started 117
- Applying the FITT Formula 117
- Putting Together a Complete Workout 123
- Making FITT Work for You 124

Putting Your Personal Fitness Plan into Action 127

- Making Progress Toward Your Fitness Goals 127
- Making Exercise Safe 127
- Personal Training—Online, in Person, or Somewhere in Between? 128
- Fine-Tuning Your Program to Maintain Success and Enjoyment 128
- Sticking with Your Program—and Restarting It After a Lapse 130

Summary 132

More to Explore 132

LAB ACTIVITY 4-1 Assessing Your Cardiorespiratory Fitness 133

LAB ACTIVITY 4-2 Planning a Cardiorespiratory Fitness Program 137

5 Muscle Fitness 140

Factors Affecting Muscle Fitness 141

- Types of Muscles 142
- Types of Muscle Fibers 144
- Biological Sex 144
- Age and Use 145
- Genetics 146

Benefits of Muscle Fitness 147

- Body-Weight Control 147
- Improved Performance 148
- Reduced Risk of Injury and Disease 148
- Improved Emotional and Psychological Wellness 148

Assessing Your Muscle Fitness 150

Putting Together a Muscle-Fitness Program 151

- Choosing Appropriate Equipment and Facilities 151
- Selecting Types of Muscular Training 153
- Applying the FITT Formula: Frequency, Intensity, Time, and Type 155

Managing a Safe and Successful Muscle-Fitness Program 158

- Weight-Training Safety and Injury Prevention 158
- Making Progress 161
- Avoiding Drugs and Supplements 163

Summary 166

More to Explore 166

Sample Resistance-Training Programs 167

Strength-Training Exercises 167

Muscle Group 168

LAB ACTIVITY 5-1 Assessing Your Muscular Strength 183

LAB ACTIVITY 5-2 Assessing Your Muscular Endurance 187

LAB ACTIVITY 5-3 Creating a Program for Building and Maintaining Muscle Fitness 190

6 Flexibility and Low-Back Fitness 192

Factors Affecting Flexibility 193

- Joint Structure 193
- Connective Tissues and Nervous System Action 194
- Injury and Disease 195
- Genetics 195
- Sex 196
- Use and Age 196

Benefits of Flexibility 196

- Improved Performance 196
- Reduced Risk of Injury 197
- Other Benefits of Flexibility and Stretching Exercises 198

Assessing Your Flexibility 198

Putting Together a Flexibility Program 199

- Flexibility Training Techniques 199
- Applying the FITT Formula 202

Low-Back Fitness 204

- Structure and Function of the Spine 204
- Understanding Body Mechanics and Good Posture 205
- Prevention and Management of Low-Back Pain 210

Summary 213

More to Explore 213

Flexibility Exercises 214

Exercises for the Lower Back 219

LAB ACTIVITY 6-1 Assessing Your Flexibility 221

LAB ACTIVITY 6-2 Creating a Program for Flexibility 225

LAB ACTIVITY 6-3 Evaluating Posture 227

LAB ACTIVITY 6-4 Assessing Your Muscular Endurance for Low-Back Fitness 229

7

**Body Composition
Basics 231****Basics of Body Composition 232****Factors Affecting Body Composition 235**

- Genetics 236
- Biological Sex 237
- Age 238
- Ethnicity 239
- Lifestyle and Environment 239

Body Composition and Wellness 240

- Problems Associated with Excess Body Fat 240
- Problems Associated with Too Little Body Fat 242
- Body Composition and Athletic Performance 243
- Body Composition, Body Image, and Emotional Wellness 243

Assessing Body Composition 246

- Body Mass Index: An Indirect Measure of Body Fat 246
- Methods for Estimating Percent Body Fat 247
- Methods for Assessing Body-Fat Distribution 250

Making Changes in Body Composition 251

- Setting Appropriate Goals 251
- Focusing on Energy Balance 252

Summary 256

More to Explore 256

LAB ACTIVITY 7-1 Evaluating BMI, Percent Body Fat, and Body-Fat Distribution 257**LAB ACTIVITY 7-2** Setting Body-Composition Goals 265

8

**Nutrition Basics:
Energy and Nutrients 267****Dietary Components and Concepts 268**

- Macronutrients, Micronutrients, and Energy 268
- Energy and Nutrient Recommendations 271
- Energy Density and Nutrient Density 273
- The American Diet and the Recommended Diet 274

Carbohydrates 275

- Simple and Complex Carbohydrates 275
- Recommended Carbohydrate Intake 277
- Fiber 278

Protein 280

- Complete and Incomplete Proteins 280
- Recommended Protein Intake 282

Fats 282

- Types of Fats 282
- Cholesterol 285
- Recommended Fat Intake 285

Water 286

- Sources of Water 286
- Recommended Intake of Water 287

Vitamins and Minerals 289

- Sources and Recommended Intakes of Vitamins and Minerals 292
- Vitamins and Minerals of Special Concern 294
- Special Recommendations for Specific Groups 296
- Choosing and Using Supplements 297

**Food Labels: An Important Tool for
Consumers 299****Assessing Your Diet for Energy and Nutrient
Intakes 300**

Summary 300

More to Explore 300

LAB ACTIVITY 8-1 Determining Energy and Macronutrient Intake Goals 301**LAB ACTIVITY 8-2** Your Current Diet: Energy and Nutrient Analysis 305

9

**Eating for Wellness and
Weight Management 307****Planning a Healthy Diet 308**

- USDA's MyPlate 308
- Vegetarian Diets 317
- DASH and Other Dietary Plans 318

Developing Practical Food Skills 319

- Meal Planning and Preparation 319
- Eating Away from Home 320
- Food Safety and Technology 322
- Making Changes for the Better 327

Healthy Weight Loss and Maintenance 328

- Focus on Energy Balance 328
- Weight-Loss Plans, Products, and Procedures 332

Healthy Weight Gain 335**Eating Disorders 336**

- Summary 338
- More to Explore 338

LAB ACTIVITY 9-1 Your Current Diet Versus MyPlate 339

LAB ACTIVITY 9-2 Goals and Strategies for Weight Management 341

10

Stress and Its Sources 343

Stress and the Stress Response 344

- What Is Stress? 344
- The Stress Response: Fight or Flight 344
- Counterbalancing Fight or Flight: A Return to Homeostasis 346
- The Stress Emotions: Anger and Fear 346

Factors Affecting the Experience of Stress 349

- Personality 349
- Gender and Biological Sex 351
- Ways of Thinking: Cognitive Patterns 352

Stress and Wellness 353

- Stress and Performance 353
- Stress and Overall Health 354
- Acute Versus Chronic Stress 355
- Underlying Factors in Stress-Related Health Problems 355
- Stress and Specific Conditions 355

Sources of Stress 356

- Life Experiences Large and Small 356
- Time Pressures 357
- Job and Financial Pressures 357
- Relationships and Families 359
- Social and Environmental Stressors 360

Managing Stress 360

- Time Management 360
- Cognitive Strategies 362
- Healthy Relationships and Social Support 363
- Healthy Lifestyle Choices: Activity, Diet, and Sleep 366
- Spiritual Wellness 368
- Relaxation Techniques 370

When Stress Becomes Too Much: Getting Help 372

- Summary 375
- More to Explore 375

LAB ACTIVITY 10-1 What's Stressing You? 376

LAB ACTIVITY 10-2 How Well Are You Handling Stress? 378

11

Chronic Diseases 380

Cardiovascular Disease 381

- Types of Cardiovascular Disease 381
- Assessing Your Risk for Cardiovascular Disease: Factors You Cannot Control 386
- Cardiovascular Disease Prevention 388
- Symptoms, Diagnosis, and Treatment of Cardiovascular Disease 393

Cancer 396

- Types of Cancer 398
- Assessing Your Risk for Cancer 398
- Cancer Prevention 401
- Symptoms, Diagnosis, and Treatment of Cancer 403

Diabetes 407

- Types of Diabetes 408
- Assessing Your Risk for Diabetes 408

Diabetes Prevention 410
Symptoms, Diagnosis, and Treatment of Diabetes 410

Putting It All Together for Chronic Disease Prevention 412

Summary 414
More to Explore 414

LAB ACTIVITY 11-1 Identifying Your Chronic Disease Risk Factors 415

12 Infectious Diseases 417

Infection and Immunity 418

Pathogens 418
The Cycle of Infection 419
The Body's Defenses 421
The Immune System 422
The Role of Immunizations 423
Stages and Patterns of Infectious Diseases 424
Prevention and Treatment of Infectious Diseases 424

Infectious Diseases on Campus 427

Colds and Influenza 427
Infectious Mononucleosis 428
Meningitis 429
Bacterial Skin Infections 429

Sexually Transmitted Infections 431

Trichomoniasis 432
Chlamydia 433
Gonorrhea 433
Pelvic Inflammatory Disease (PID) 433
Syphilis 434
Genital Herpes 434
Genital Warts (HPV Infection) 435
Viral Hepatitis 436
HIV Infection and AIDS 437

Summary 441
More to Explore 441

LAB ACTIVITY 12-1 Infectious Disease Risk Checklist 442

13 Substance Use, Dependence, and Addiction 445

Understanding Addictive Behaviors 446

Defining Addiction and Dependence 446
Developing Addiction 447

Psychoactive Drugs 448

Misuse and Abuse of Psychoactive Drugs 449
Caffeine: A Commonly Consumed Psychoactive Drug 451
Marijuana 453
Ecstasy (MDMA) 455
Nonmedical Use of Prescription Drugs 455

Alcohol 456

Alcoholic Beverages and Drinking Patterns 456
Short-Term Effects of Alcohol Use 458
Long-Term Health Effects of Alcohol Use 461
Alcohol Abuse and Alcoholism 462

Tobacco 464

Prevalence and Patterns of Tobacco Use 464
Tobacco and Nicotine 464
Effects of Smoking 466
Other Forms of Tobacco Use 467
Environmental Tobacco Smoke 467
Quitting Tobacco 468

Summary 469
More to Explore 469

LAB ACTIVITY 13-1 Alcohol Use and Other Addictive Behaviors 470

Afterword: Lifetime Fitness and Wellness 472

Appendix 476

References 478

Credits 487

Index 490

Preface

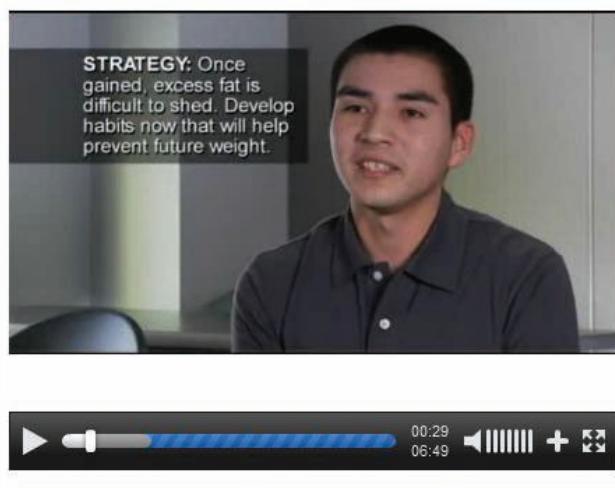
Active Students / Active Learning

If students sit passively on the sidelines, how can we expect them to learn—and to change their behavior in ways that promote their health and wellness, now and in the future?

Questions and Answers empowers students to become active participants in their own fitness and wellness through a genuinely student-centered approach. This is the first fitness and wellness text to be written in direct response to students' questions about their own health and well-being. In responding to these student inquiries, authors Gary Liguori and Sandra Carroll-Cobb combine the latest science-based knowledge with practical guidance on concrete actions students can take *now* to improve their fitness and wellness. By encouraging students to be engaged participants in their learning, *Questions and Answers* also inspires them to become active shapers of their future health and happiness.

The active learning approach of *Questions and Answers* includes the following features:

FOCUS ON BEHAVIOR CHANGE: Online video case studies follow real college students attempting to change their behavior, and prompt readers to apply lessons from these experiences to their own behavior-change goals. Throughout the text itself, the use of student questions calls attention to the how and why of the content—making the real-life applications apparent. A series of lab activities provide tracking tools and self-assessment forms that can be completed in print or online.



LAB ACTIVITY 1-1 Wellness Lifestyle Assessment

COMPLETE! connect

NAME _____ DATE _____ SECTION _____

This lab activity will help you identify your positive and negative wellness lifestyle behaviors.

Equipment: None

Preparation: None

Instructions
For each wellness behavior listed below, place a check in the column with the answer that best describes your behavior.

	A	B	C
	ALMOST ALWAYS	SOME TIMES	ALMOST NEVER
1. I engage in at least 150 minutes per week of moderate-intensity aerobic exercise.			
2. I perform muscular strength and endurance exercises at least 2 times per week.			
3. I perform stretching exercises at least 2 days per week.			
4. I spend some leisure time each week engaged in physical activity.			
5. I eat at least 7 servings of fruits and vegetables a day.			
6. I avoid skipping meals.			
7. I limit my intake of foods high in saturated and trans fat.			
8. I limit the amount of added sugars I consume from sweetened beverages, desserts, and similar products.			
9. I limit the amount of salt I consume.			
10. For breads, cereals, and other grain-based products, I choose whole-grain foods at least half the time.			
11. I check food labels, ingredient lists, and nutrition information at restaurants in order to make informed choices.			
12. I maintain a healthy weight, avoiding overweight or underweight.			
13. I get 7-8 hours of sleep each night.			
14. I don't smoke cigarettes, cigars, or any other form of tobacco.			
15. I don't use smokeless (spit) tobacco.			
16. I avoid exposure to secondhand smoke.			
17. I use alcohol in moderation (1 drink or less per day for women; 2 drinks or less per day for men) or not at all.			
18. I do not use alcohol or any substance to the point of intoxication.			
19. I use over-the-counter medications as directed.			
20. I use prescription drugs as prescribed.			
21. I avoid unproven, dangerous, and illegal substances, including steroids, as well as unproven health remedies.			
22. I practice good dental care by brushing my teeth 2 or more times a day, flossing at least once per day, and having a dental checkup at least once a year.			
23. I have medical checkups annually or as suggested by my physician in order to obtain all recommended screening tests.			
24. I get recommended immunizations.			
25. I obtain only medically necessary X-rays.			

27

CONNECT FITNESS AND WELLNESS: Connect Fitness and Wellness is a Web-based assignment and assessment platform that promotes active learning and provides tools that enable instructors to teach the course more efficiently and effectively. Using Connect, instructors can easily assign preloaded activities, create and edit assignments, produce video lectures, upload their own articles or videos, cascade assignments, and generate reports for one or many course sections.

MEANINGFUL PEDAGOGY: The results-centered pedagogy of *Questions and Answers* ensures that every detail in every chapter works toward the larger goal of making students active participants in their own life-learning. The authors address issues that are of importance to students' daily living and well-being, such as maintaining motivation to exercise, understanding the safety of dietary supplements, and choosing the best exercise shoes. Critical thinking questions and calls to action prompt students to evaluate the content and connect it to their own experiences.

Proven and Practical Learning Features



Wellness Strategies boxes offer specific approaches to and techniques for improving personal well-being.

Dollar Stretcher selections provide tips to help students maximize their financial wellness.



Mind Stretcher Critical Thinking Exercises challenge readers to pause, analyze, and evaluate aspects of the text discussion.

Research Brief boxes summarize recent research findings and prompt students to consider the importance of these results and their implications for their own lives.



Living Well with . . . selections present strategies for maintaining wellness while coping with various health issues.

Myth or Fact? callouts connect to online videos that debunk common health and wellness myths.



Fast Facts boxes are a go-to spot for important, high-interest statistics and other information.



What's New in the Second Edition

Chapter 1: Introduction to Health, Wellness, and Fitness

- Added new research findings in current Research Brief selection, “It’s Good to Be Good”
- Added a detailed new Wellness Strategies selection, “Why Sustainability Matters—and What You Can Do”
- Integrated new information in Fast Facts selection “Driving Distracted?”
- Updated the discussion of the Healthy People initiative with new information, including details on the final progress report for *Healthy People 2010* as well as an account of the *Healthy People 2020* goals

Chapter 2: Positive Choices/Positive Changes

- Added new Fast Facts selection, “Buddy Up for Behavior Change”
- Revised SMART goals section
- Added new figure to depict SMART goals and components

Chapter 3: Fundamentals of Physical Fitness

- Updated Research Brief selection, “Exercise Keeps You Young”
- New figure, “Progressive Overload”

- New Research Brief selection, “Hate to Exercise? Think Again!”
- Updated Fast Facts selection, “Helmet Head”
- New table, “Free and Low-Cost Exercise Alternatives”

Chapter 4: Cardiorespiratory Fitness

- Streamlined and clarified the analyses of ATP’s function and catabolism
- Substantially revised the treatment of the body’s three energy systems—ATP-CP, glycolytic, and aerobic—for conciseness and ease of comprehension
- Extensively revised the discussion of the fat-burning effects of low-intensity exercise, for enhanced clarity
- Expanded the discussion of the challenges of sticking to an exercise program and of dealing with relapse
- New Research Brief selection, “The Effect of Acute Bouts of Exercise on Anxiety”

Chapter 5: Muscle Fitness

- New figure, “Sliding Filament Theory”
- Added material on the overload principle
- New Research Brief selection, “Strength Training and Diabetes”
- Revised the discussion of tips for joining a gym
- New Research Brief selection, “Can Being Strong Keep You Alive?”

- Clarified the text narrative on concentric and eccentric contractions
- New tables, “Training Frequency Recommendations for Resistance Training” and “Program Design Parameters for Resistance Training”
- Revised the treatment of the limited effects of spot training
- Expanded the text discussion of guidelines for putting together a muscle-fitness program and of exercise-safety recommendations

Chapter 6: Flexibility and Low-Back Fitness

- New Research Brief selection, “Heavy Backpack, Heavy Price”

Chapter 7: Body Composition Basics

- Updated Research Brief selection, “Beating the ‘Fatso’ Gene”
- New Research Brief selection, “You Are What You Drink”

Chapter 8: Nutrition Basics: Energy and Nutrients

- Added text on the harms of consuming sweetened soda
- New Research Brief selection, “Does Beverage Choice Make Kids Fat?”
- New Fast Facts box, “The Average American Drinker”

Chapter 9: Eating for Wellness and Weight Management

- Comprehensively revised the text, tables, and figures to reflect the USDA’s MyPlate food plan
- New Fast Facts box, “Quick Tips for Avoiding Weight Gain in College”
- Revised the text on guidelines for meal planning and preparation
- New Dollar Stretcher selection on making good nutrition choices that also save time and money
- Substantially rewrote and expanded the text on making wise fast-food choices
- New Research Brief selection, “Is Whom We Eat with Just as Important as What We Eat?”
- New Research Brief selection, “How Food Cues and Portion Size Impact Eating”
- New Fast Facts box, “Mindless Eating”
- New Mind Stretcher box on weight-loss apps for smartphones

Chapter 10: Stress and Its Sources

- New Fast Facts box, “Is Your State Stressed?”
- New Research Brief selection, “Smartphone Stressing You?”
- Added material on type C and type D personality profiles
- New Wellness Strategies selection, “You Are What You Think”

- New Research Brief selection, “The Negative Consequences of Prenatal Stress”
- New Research Brief selection, “Dieting Stress: Can It Impede Weight Loss?”
- New table, “American Adults’ Stress-Management Techniques”
- New Research Brief selection, “Sleep, Bad Sleep, and Really Bad Sleep”
- New Fast Facts box, “Asleep at the Wheel”
- Updated Research Brief selection, “The Stress of Setting Life Goals”

Chapter 11: Chronic Diseases

- Added information about varicose veins
- Added resources for collecting, organizing, and researching family health history
- Updated Research Brief selection, “Don’t Worry, Be Happy”
- Incorporated additional resources for heart attack and stroke warning signs, as well as CPR/AED
- Integrated new information about the availability of genetic testing to screen for genes that increase the risk of CVD and diabetes, as well as other diseases and disorders
- Updated Wellness Strategies selection, “The Ups and Downs of Genetic Testing: Things to Know”
- Updated Wellness Strategies selection, “Protecting Your Skin from the Sun”
- New table, “Top Lifestyle Choices for Preventing Chronic Disease”

Chapter 12: Infectious Diseases

- New Fast Facts box, “Superbugs on the Loose”
- New Research Brief selection, “Hand Washing 101”
- New Mind Stretcher exploring issues related to annual flu immunizations
- New Fast Facts box, “STIs: The Sobering Reality”
- New Mind Stretcher selection on issues related to screening for STIs
- Updated Wellness Strategies selection, “The Dos and Don’ts of Condom Use”

Chapter 13: Substance Use, Dependence, and Addiction

- New Mind Stretcher selection probing addiction and dependence
- New Research Brief selection, “Energy Drinks and Alcohol: A Dangerous Mix”
- New Research Brief selection, “Marijuana and the Workplace”
- Added new insights on the problems associated with chewing tobacco
- New Mind Stretcher on the importance of support systems for individuals who want to quit smoking
- Added new text on electric cigarettes and water pipes
- New Dollar Stretcher selection exploring the high dollar cost of consuming alcohol

1

Introduction to Health, Wellness, and Fitness

COMING UP IN THIS CHAPTER

- Define health, wellness, and fitness
- Examine the dimensions of wellness
- Survey the major health challenges affecting Americans, as well as their underlying causes and risk factors
- Identify key healthy-lifestyle behaviors
- Assess your personal wellness status



Ask ten people what health is, and you'll probably get ten different answers. The truth is that the word *health* means different things to different people. If you throw in the terms *wellness* and *physical fitness*, the definitions may get even trickier. To gain a sound understanding of your own health and wellness, it's essential to clarify these concepts and to learn about the factors that influence them.

This book introduces the concepts of health and surveys recommended health habits. You'll learn that wellness is more than just physical health or the absence of illness—it encompasses all the

dimensions illustrated in the Wellness Integrator figure below, including physical, emotional, intellectual, social, spiritual, and environmental wellness. To be truly well, you must develop and balance all the aspects of wellness.

This first chapter provides a framework for thinking about health and wellness—their dimensions and their connections to your behavior, environment, goals, and aspirations. We'll also look at key health challenges, both general and those particularly affecting college students. You'll also have the opportunity to assess your own wellness status and to identify potential areas of improvement.



Personal Health and Wellness

Although people talk a great deal about health and wellness, there are no universally accepted definitions. However, the different definitions of these closely related concepts share many characteristics.

Evolving Definitions of Health

Q | I haven't been sick in over a year. Can I rate myself as healthy?

That would depend on your definition of *healthy*. For many people, health is something they think about only if there is a sudden, noticeable change

for the worse—for example, an illness or injury. From this perspective, health is an either-or state: You are either healthy or unhealthy, with no middle ground. If you think about health in this way, you'll miss important opportunities to improve your health and well-being throughout your life.

Health comes from the Old English word *hoelth*, meaning “a state of being sound and whole,” generally in reference to the body. The ancient Greek physician Hippocrates was one of the first credited with using observation and inquiry to assess health status—rather than considering health to be a divine gift. He and other physicians of his time believed health was a condition of balance or equilibrium; therefore ill health or disease was caused by imbalance among elements in the body. Much of Hippocrates' teachings were based on prevention. He promoted “balance” through means such as good hygiene,

exercise, eating well, and moderation in all things—ideas that are still important today.

Many other visions and definitions of health have surfaced over the years. A widely used modern definition comes from the constitution of the World Health Organization (WHO): “Health is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.”¹ This definition emphasizes the important idea that health is more than just the absence of disease. However, some critics point out that *complete* well-being is unrealistic for most people and that health is not a single state but rather a dynamic condition.

Some professionals have modified and expanded the WHO definition to include the idea of health status as a continuum.² That is the framework we'll use in this book: **Health** is a condition with multiple dimensions that falls on a continuum from negative health, characterized by illness and premature death, to positive health, characterized by the capacity to enjoy life and to withstand life's challenges.

At different times, your health status may be on different points on the continuum—and it may be moving in either a positive or a negative direction (Figure 1-1). Many young adults fall into the positive half of the continuum, experiencing minor, short-term illnesses interspersed with periods of no symptoms. However, in terms of other factors—habits that influence future health risks and current subjective

health A condition with multiple dimensions that falls on a continuum from negative health, characterized by illness and premature death, to positive health, characterized by the capacity to enjoy life and to withstand life's challenges.

Behavior-Change Challenge

Integrating the Dimensions of Wellness

You're juggling several college courses and a demanding job and trying to make financial ends meet. To reduce stress, you have been drinking more than you would like or perhaps indulging in salty, fatty snacks; or maybe you have been neglecting your usual exercise regimen. You want to get back on a good track but feel as if you're stuck in a rut.

Meet Erika

Erika is a 23-year-old student and the mother of two young children. She experienced an abusive marriage and wants to make changes in her life for herself and her children.



Erika's goal is to complete a 5K run, and while training, she hopes to return to her pre-marriage weight. View the video to learn about Erika's story and her behavior change plan and strategies. Think about how the various dimensions of wellness might influence her plan. Consider:

- How does Erika go about developing her plan? What social and environmental resources does she use? What similar types of resources are available to help you in your mission to change your behavior?
- What intellectual and other strategies does Erika use to stay motivated? What role does self-esteem play? What in Erika's experiences will help you to make positive behavior changes and improve your wellness?

VIDEO CASE STUDY WATCH THIS VIDEO IN **connect**

Fast Facts

No April Fools

April 7 is World Health Day, the anniversary of the day in 1948 when the World Health Organization's constitution was adopted. On this date around the globe, thousands of events demonstrate the importance of health for happy and productive lives. Each year, World Health Day highlights a different area of WHO concern. Recent themes have included aging and health, antimicrobial resistance, and the effects of urbanization on health. Visit <http://www.who.int/world-health-day/en/> to learn more.



- Choose one of the causes mentioned above in this box or on the World Health Day site. What could you do at the local level to promote one of these campaigns?

feelings of mood, energy level, and sense of well-being—they may not feel “healthy” at all. It is in these areas that the concept of wellness can provide a useful framework for action.

Actively Working Toward Wellness

Q | Are health and wellness the same? Health and wellness are closely related, and some people use the terms interchangeably. In this book,



Figure 1-1 The health continuum. At the negative end of the continuum is serious illness and premature death. At the positive end of the continuum is the capacity to enjoy life and to withstand challenges.

Sources: Adapted from Bouchard, C., Shephard, R. J., & Stephens, T. (1994). *Physical activity, fitness, and health: International proceedings and consensus statement*. Champaign, IL: Human Kinetics; *Mental health: A report of the Surgeon General*. (1999). Rockville, MD: U.S. Public Health Service.

we define the term *wellness* differently from *health*. **Wellness** is a more personalized concept than health and has several additional key characteristics:

- Wellness has multiple, clearly defined dimensions; balance is very important, but you can be at a different level of wellness for each dimension (see the next section).
- Wellness is an active process, meaning you can always work to improve your wellness status.
- Individual responsibility and choice are critical wellness components; by becoming aware of the factors that affect you and by making appropriate choices, you can significantly affect your level of wellness.
- Wellness status is a reflection of your own perceptions about your health and well-being.

Two people at similar places on the health continuum may perceive their wellness status very differently. An individual with a severe illness or impairment may still have a strong sense of well-being and may be living up to her or his full wellness potential. Wellness is determined by the decisions people make about how to live their lives with vitality and meaning.

Discovering Dimensions of Wellness

Q | Can you be physically unfit but still be happy and social at the same time?

Yes, you can. This question gets at a key aspect of wellness—that there are different dimensions, and although the dimensions are interrelated, you

can be at a different level of wellness for each. A physically unfit person might not rate highly in the physical dimension of wellness but may fare much better in other dimensions, such as social and intellectual wellness. On the flip side, someone who is very fit and the picture of what we'd call physical health may rate poorly in terms of the other dimensions of wellness. True wellness requires addressing *all* the dimensions. Let's take a closer look at characteristics and behaviors associated with each of the six dimensions in our wellness model.

PHYSICAL WELLNESS. Mention physical wellness, and many will picture someone who is active and looks fit. However, physical wellness isn't only about physical fitness or appearance. **Physical wellness** is the complete physical condition and functioning of the body—both the visible aspects, such as how fit one looks, and those that are not, such as blood pressure and bone density. Throughout your life, physical wellness is reflected in your ability to accomplish your daily activities and to care for yourself.

Regular physical activity and healthy eating are the foundation behaviors of physical wellness, but they are just a beginning. Ask yourself these questions:

- Do I get enough sleep?
- Do I use alcohol and drugs responsibly?



Wellness is determined by the choices people make about how to live their lives with energy and meaning. Someone with a physical impairment can achieve a high level of wellness.

- Do I make intentional and responsible sexual choices?
- Do I use sunscreen?
- Do I practice safe driving?
- Do I manage injuries and illnesses appropriately, practice self-care, and seek medical assistance when necessary?

Maintaining physical wellness means making informed health decisions on many fronts and offers many opportunities for improving your quality of life.

How does physical fitness relate to physical wellness? **Physical fitness** is the ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and respond to emergencies.³ This definition ties closely with wellness and quality of life. But fitness also has

wellness An active process of adopting patterns of behavior that can improve an individual's health and perceptions of well-being and quality of life in terms of multiple, intertwined dimensions.

physical wellness

Dimension of wellness referring to the complete physical condition and functioning of the body; focuses on behaviors that support physical aspects of health, including diet, exercise, sleep, stress management, and self-care.

physical fitness

The ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and respond to emergencies.

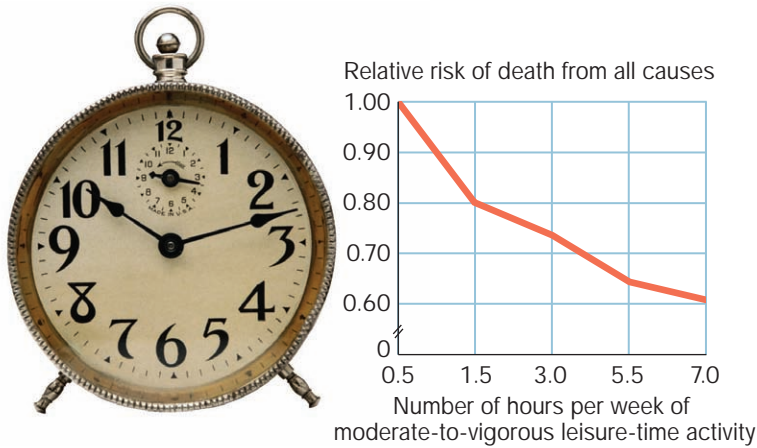


Figure 1-2 Level of physical activity and risk of death.

The biggest reduction in the risk of death is at the low end of the physical activity spectrum, between people who are sedentary and people whose activity level is low or moderate; additional risk reductions accompany higher levels of physical activity.

Source: Physical Activity Guidelines Advisory Committee. (2008). *Physical Activity Guidelines Advisory Committee report, 2008*. Washington, DC: U.S. Department of Health and Human Services.

measurable components, including muscle strength and joint flexibility. Your level of fitness depends on specific physical attributes, including the functioning of your heart, lungs, blood vessels, and muscles. Importantly, good physical fitness doesn't equal good physical wellness; fitness is just one piece of physical wellness, and a person with a high fitness level can have serious risks to his or her physical health. For example, being physically fit doesn't prevent the damage that smoking does to lungs, arteries, and other body systems.

For physical wellness, you should strive for a fitness level that meets your goals for daily functioning and recreational pursuits. A certain level of fitness is needed to reap its many associated health benefits, such as reduced risk of chronic diseases like heart disease and cancer, but you don't need an extremely high level of fitness for health and wellness. Sedentary people can reap many of the benefits of fitness when they add a modest amount of activity to their daily routine (Figure 1-2).

Some individuals strive for high fitness because they have specific goals related to physical performance. For example, ballet dancers and gymnasts need a much greater degree of joint flexibility than the typical person in order to perform with excellence. Don't be discouraged from physical activity because you think you must exercise very intensely or become extremely fit in order to obtain wellness benefits. Also bear in mind that physical activity has many immediate benefits, including improved mood, reduced stress, and increased energy level.

Although all physical activity can affect wellness, not all activity builds physical fitness—for example, for most people, just walking down the hall doesn't increase measures of fitness. That usually requires **exercise**—planned,

structured, repetitive body movements specifically designed to develop physical fitness. You'll learn much more about physical activity, exercise, and physical fitness in later chapters, along with details on how to put together an exercise program that is right for you.

EMOTIONAL WELLNESS. Emotional wellness is based in your ability to carry on your day-to-day activities while understanding your feelings and expressing them in constructive and appropriate ways. It involves accepting your feelings, monitoring your emotional reactions, and recognizing your strengths and limitations. It is also exemplified by your ability to cope, manage, and adapt to normal stressors. The following qualities are associated with emotional wellness:

- Optimism
- Enthusiasm
- Trust
- Self-confidence
- Self-acceptance
- Resiliency
- Self-esteem

People with a high level of emotional wellness have a generally positive outlook and can meet challenges while maintaining emotional stability. They can deal effectively with strong feelings—they are both flexible and balanced. They can live and work autonomously while also reaching out to others. They are moreover willing to seek help for emotional problems, if needed.

INTELLECTUAL WELLNESS. Intellectual wellness is characterized by the ability to think logically and solve problems in order to meet life's challenges successfully. An active and engaged mind is vital for making sound choices related to all the dimensions of wellness. Do you relish learning new skills, solving problems, and exploring ideas? People who enjoy a high level of intellectual wellness are creative, open to new ideas, and motivated to learn new information and new skills. They actively seek ways to challenge their minds and pursue intellectual growth. They can apply critical thinking as they gather and evaluate information and use it to make sound decisions.

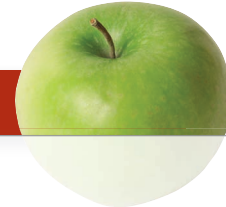
Every health consumer should know how to use critical thinking to evaluate the quality of online health and wellness information; see the box "Web-Surfing Safety: Finding Sound Wellness Information Online" for more information.

SOCIAL WELLNESS. Human beings are social by nature—some more than others, but all of us are social creatures.

exercise Planned, structured, repetitive body movements specifically designed to develop physical fitness.

emotional wellness Dimension of wellness that focuses on one's ability to manage and express emotions in constructive and appropriate ways.

intellectual wellness Dimension of wellness that focuses on developing and enhancing one's knowledge base and critical thinking, decision-making, and problem-solving skills.



Wellness Strategies

Web-Surfing Safety: Finding Sound Wellness Information Online

Q | Is there any good health information on the Web?

Yes, but it's important to examine Web sites carefully to ensure that the information is valid. Look

for the following when evaluating the quality of health information on Web sites.

Consider the source: Know who is responsible for the content, and look for recognized authorities.

- Locate the “about us” page. Is the site run by a branch of the federal government, a nonprofit institution, a college or university, a professional organization, a health system, a commercial organization, or an individual?
- Use caution if the site doesn't provide a way to contact the organization or webmaster.

Focus on quality and find evidence for the claims: Ensure that information is authored by experts or reviewed and approved by an editorial board before it is posted.

- Use caution on sites that don't identify the author and that rely on testimonials and opinions rather than qualified individuals, research, or organizations.
- Look for sites with HONCode certification, meaning that they follow the code of conduct developed by the Health on the Net (HON) Foundation (<http://www.hon.ch>).

Be a cyberskeptic: Avoid quackery.

- Beware of claims that are too good to be true, such as a remedy that will cure a variety of illnesses, that is a “breakthrough,” that will have quick and dramatic results, or that relies on a “secret ingredient.”
- Avoid sites that have a sensational writing style (lots of exclamation points, for example) and those that use technical jargon or deliberately obscure—or artificially scientific-sounding—language.
- Get a second opinion. Check more than one site.

Review for currency: Look for dates on Web pages. An article on coping with the loss of a loved one doesn't need

to be current, but an article on the latest treatment of diabetes does.

Beware of bias: What is the purpose of the site? Who is funding it?

- Use caution if the site's sponsor is selling something, even if the product is only indirectly referred to on the site. Advertisements that do appear should be labeled; they should say “Advertisement” or “From our Sponsor.”
- See if it is clear whether the content comes from a noncommercial source or an advertiser is providing it. For example, if a page about treatment of depression recommends one drug by name, the drug's manufacturer may have provided that information. Consult other sources to see what they say about the drug and whether others can also be used.

Protect your privacy: Health information should be confidential. Look for a privacy policy that tells you what information the site collects and what the site managers do with it. For example, if the site says “We share information with companies that can provide you with useful products,” then your information isn't private.

Consult with your health professional before making any major lifestyle changes or health care decisions.

Use this information to evaluate a Web site that you consult for health and wellness information. How does the site rate on the above criteria? Is the site credible? Why or why not?

Source: Adapted from National Library of Medicine. (2006). *MedlinePlus guide to healthy Web surfing* (<http://www.nlm.nih.gov/medlineplus/healthywebsurfing.html>).



Social wellness is defined by the ability to develop and maintain positive, healthy, satisfying interpersonal relationships and appropriate support networks. This includes building relationships with individuals and groups both inside and outside one's family, as well as contributing to the broader community in which one lives. The ability to communicate effectively and to develop a capacity for intimacy are key elements

social wellness Dimension of wellness that focuses on one's ability to develop and maintain positive, healthy, satisfying interpersonal relationships and appropriate support networks.

of social wellness. Do you have friends or family members who you can confide in and lean on for support? Are people comfortable confiding in you and coming to you for help? Do you get along with others and communicate with respect, despite differences of opinion or values? Are you a good listener? What do you contribute to the greater community?

SPIRITUAL WELLNESS. Wellness involves more than striving for physical health; it is also a search for meaning, purpose, and fulfillment. **Spiritual wellness** means having a set of



Social wellness is exemplified by positive, satisfying interpersonal relationships.

values, beliefs, or principles that give meaning and purpose to your life and help guide your choices and actions. Compassion, forgiveness, altruism (unselfish helping of others), tolerance, and the capacity for love are all qualities associated with spiritual wellness. Do the choices you make every

day reflect your values and priorities? Or do you sometimes act in ways that conflict with your values?

People develop and express spirituality in different ways. For some people, purpose and direction come from organized religion or the belief in a higher power in the universe; they

spiritual wellness

Dimension of wellness that focuses on developing a set of values, beliefs, or principles that give meaning and purpose to life and guide one's actions and choices.

may engage in spiritual practices such as prayer and meditation. Others may express spirituality through the arts, volunteer work, or personal relationships. See the box “It’s Good to Be Good” for more information about the connection between personal wellness and volunteerism.

Spirituality is sometimes considered a controversial part of wellness models, because it touches on issues or beliefs that some people prefer to keep private and that other people feel compelled to share—or at times to press upon others. Even if talking about spirituality or specific religious issues can occasionally make people uncomfortable, spirituality is not a topic to be avoided or a less important part of personal wellness. The fact that many people become so impassioned about spiritual matters speaks to the relevance of spirituality in their lives. Regardless of the controversies and your specific beliefs, spirituality—however you may express it in your own life—is an essential part of your overall well-being. The values, beliefs, and principles you live by are an indispensable part of the whole you. As the noted neurologist and psychiatrist Viktor E. Frankl observed, “The spiritual dimension cannot be ignored, for it is what makes us human.”

ENVIRONMENTAL WELLNESS. Your own wellness depends on your surroundings. Does your physical environment support your wellness or detract from it? Are there hazards in your environment—toxins such as secondhand smoke and industrial pollution, or a high degree of violence in the local community—that you should be aware

Research Brief

It’s Good to Be Good

Researchers have investigated whether helping others—by participating in organized volunteer work or by providing *instrumental support* (for example, assistance with household or child-care tasks, or finances) to friends or family members—affects the health of the helper. Most studies have found clear benefits for both physical and mental health.

One recent study followed more than 7,000 older adults for eight years. The researchers found that those who were frequent volunteers had significantly reduced mortality (death from any cause). Similar benefits to health and well-being have been found for people of all ages. In another study researchers investigated the relationship between volunteering and self-reported health and happiness. Results indicate that those who volunteered reported being healthier and happier.

How does helping others improve health? The health benefits may stem from a reduction in the levels and the physiological effects of stress for people who volunteer,

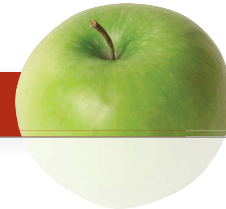
including changes in the levels of hormones and certain brain chemicals. Helping others may also serve to increase empathic emotions. Volunteering provides opportunities for social interaction and support as well as a distraction from one’s own worries. Researchers caution, however, that helping needs to be voluntary and not overwhelming, or it won’t reduce stress.

Analyze and Apply

- What lesson from the study’s results can you apply to your own life?
- If you can’t commit to being a regular volunteer, what random acts of kindness might you engage in each day to lighten the burden of others?

Sources: Harris, A. H., & Thoresen, C. E. (2005). Volunteering is associated with delayed mortality in older people. *Journal of Health Psychology, 10*(6), 739–752. Borgonovi, F. (2008). Doing well by doing good. The relationship between formal volunteering and self-reported health and happiness. *Social Science & Medicine, 66*(11), 2321–2334.





Wellness Strategies

Why Sustainability Matters—and What You Can Do

Q | What is sustainability? Does it mean we're supposed to recycle everything?

Recycling is a part of sustainability, but sustainability is about more than just recycling. Sustainability rests on the idea that our very survival and well-being depend on our natural environment.

Sustainability is crucial for ensuring that we have, and will continue to have, the water and other natural resources to support human health and our environment.

There are many things you can do to help the environment. Scan the following lists. Some of these practices may be beyond your ability right now, but even a few changes can make a difference.

In the dorm or at home

- Use energy-saving compact fluorescent bulbs; use natural rather than electric light when possible.
- Turn off unnecessary electrical devices when you leave a room for more than 15 minutes; unplug appliances and electronics when not in use.
- Enable your computer to go into “sleep mode” when not in use; turn your computer off overnight.
- Unplug your cell phone charger when charging is complete.
- Pull down window shades at night in the winter and during the day in the summer.
- Purchase a water filter and refill a reusable container instead of buying cases of bottled water.
- Eat locally grown foods.
- Buy inexpensive cloth napkins and washable mugs and plates rather than disposable ones.
- Turn off and defrost the refrigerator over long breaks.
- Take shorter showers; don't run the water before getting in, and turn off the water when lathering.
- Turn off the faucet while brushing your teeth and shaving.
- Report or repair leaky faucets and showerheads.
- Don't use the toilet as a garbage bin. Toss tissues and waste in trash cans.
- Only wash full laundry loads, and use cold water.
- Air-dry laundered clothing whenever possible.
- Use products containing the least amount of bleaches, dyes, and fragrances.

In the classroom or office

- Use refillable binders instead of notebooks or use a laptop.
- Recycle paper and use recycled paper.
- Take notes on both sides of paper, and use both sides when printing and photocopying.
- If it's OK with your instructor, hand in assignments by printing on both sides of the page.
- Save any single-sided pages that you've printed and use the backs to print out drafts and other things you don't have to turn in.
- Use your printer's low-quality setting to save ink.

- Bookmark Web pages instead of printing them for research.
- Edit on screen, not on paper.
- Use e-mail to minimize paper use.
- Advertise events using e-mail and by posting rather than papering the campus.

In the car

- Drive less, especially during peak traffic periods or hot days.
- Use public transportation, walk, or ride a bike.
- Shop by phone, mail, or Internet.
- Combine your errands into one trip.
- Carpool. Sharing rides reduces emissions.
- Avoid revving or idling engine over 30 seconds.
- Avoid waiting in long drive-thru lines at fast-food restaurants or banks. Park your car and go in.
- Accelerate gradually; maintain speed limit and use cruise control on the highway.
- Follow your owner's manual on recommendations for maximum economic efficiency.
- Use an energy-conserving (EC) grade of motor oil.
- Minimize air conditioning.
- Get regular engine tune-ups and car maintenance checks.
- Use EPA-certified facilities for air conditioner repairs.
- Replace your car's air filter and oil regularly.
- Keep your tires properly inflated and aligned.
- When gassing up, avoid spilling gas and don't “top off” the tank.

In the store

- Use a reusable tote bag instead of a plastic or paper bag for shopping.
- Purchase durable rather than disposable products.
- If you get a plastic bag, reuse it.
- Go vintage. Buying used clothing saves money, decreases the use of resources to make clothing, and reduces the problem of sweatshops.
- Buy used furniture and household articles.
- Buy recycled products, such as paper.
- Use environmentally safe cleaning products.

What other steps can you take to help the environment?

Adapted from United States Environmental Protection Agency—What is sustainability? <http://www.epa.gov/sustainability/basicinfo.htm>; Learning the Issues: Living Green <http://www.epa.gov/gateway/learn/greenliving.html>; and Goucher College, Tips for Students, Save the Planet—Starting With Your Little Corner of It <http://www.goucher.edu/x23340.xml>.



of in order to protect yourself? Are there actions you could be taking to make your world a cleaner, safer place? **Environmental wellness** recognizes the interdependence of your wellness and the condition and livability of your surroundings. You can take steps to make sure your lifestyle is respectful of the environment and helps create sustainable human and ecological communities. Do your choices reflect your awareness of the health of



DOLLAR STRETCHER
Financial Wellness Tip

To get a handle on your finances and plan a budget, start by tracking all your income and expenses for several weeks. Many people find that by tracking expenditures, they cut back on nonessentials. Online templates are available to help you. Begin by searching for tools that are simple, free, and created for college students. If needed, you can progress to more complex models. You may also want to check out smartphone apps, many of which are free.

environmental wellness

Dimension of wellness that focuses on the condition and livability of the local environment and the planet as a whole.

the planet and your place on it? See the box “Why Sustainability Matters—and What You Can Do” for some easy steps to improve your environment.

Assess your wellness status in each of these dimensions by completing Lab Activity 1-2.

OTHER WELLNESS DIMENSIONS. The wellness model in this book incorporates the six dimensions previously described—physical, emotional, intellectual, social, spiritual, and environmental. Other models may highlight different dimensions, including two we’ll consider briefly here in terms of their relevance to college students: financial wellness and occupational wellness. Both can be important to wellness, and they encompass many aspects of the six dimensions we’ve already discussed.

Financial wellness refers to appropriate management of financial resources, a task that typically requires self-discipline and critical thinking skills. Take advantage of budgeting resources and financial planning help available on your campus and in your community (see the box “Financial Strategies for College Students”). Watch out for common financial pitfalls, including poor choices about which credit cards to get, overuse of credit cards, failure to set up a budget, and letting friends or your own unrealistic expectations pressure you into spending more than you should. Working toward

wellness doesn’t have to be an expensive endeavor; check the Dollar Stretcher tips throughout this book for strategies to save money while you boost your wellness.

Occupational wellness refers to the satisfaction, fulfillment, and enrichment you obtain through work. If you

consider the hours, days, and years you’re likely to spend at work, you can clearly see why your job choices are important to health and wellness. You want to work in environments that help you increase personal satisfaction, find enrichment and meaning, build useful skills, and contribute to your community. When you think about your potential career choices, consider your values, skills, personal qualities, and goals. Although a high-paying job may sound like the best choice, if you don’t

value and enjoy what you’ll be doing every day, you’ll gain little satisfaction from your work. Look for opportunities to learn and grow, to engage your personal interests, and to end each day feeling that your time has been well spent.

Integrating the Dimensions: Recognizing Connections and Striving for Balance

Q | If you change your behavior for fitness, will that help other areas of your life too?

Absolutely. Any activity or choice that affects one dimension of wellness will directly or indirectly affect the other dimensions, and each dimension is vital in the quest for optimal

wellness. For example, engaging in physical activity reduces stress and improves mood (emotional wellness) and is linked to the maintenance of cognitive functioning (intellectual wellness); it may also provide opportunities for enjoyable interaction with others (social wellness). The influence also runs in the opposite direction: strong intellectual wellness helps you plan a successful program for building fitness, and your social support system can be a huge plus as you work to change your exercise behavior.

To improve wellness, you must integrate all the dimensions of wellness with the personal choices and actions that affect your health and well-being. Balance among the dimensions is also critical for wellness. Don’t focus on a few dimensions and neglect others. Doing that is like removing a few spokes from a wheel: In most ways it still looks like a wheel, but it no longer functions optimally. Figure 1-3, “Wellness Integrator,” shows the close relationship among the dimensions—and with your own choices and actions. You’ll also see a wellness integrator figure, tailored to each chapter’s specific topic, at the start of every chapter of this book.

MYTH or FACT?

People spend less money when they use cash instead of a credit card.



See page 476 to find out.