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MICHAEL TEAGUE | SARA MACKENZIE | DAVID ROSENTHAL

7<sup>TH</sup> EDITION

# YOUR HEALTH TODAY

Choices in a Changing Society



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Education**

# Your Health Today

## Choices in a Changing Society

Seventh Edition



# Your Health Today

## Choices in a Changing Society

Seventh Edition

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## YOUR HEALTH TODAY

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# Dear Readers,

The story of this book began almost 20 years ago when three friends—a health educator, a family physician, and a family therapist—had a conversation about their beliefs about teaching health. While our clinical and academic paths differed, we found that we shared a fundamental belief that, although the individual plays a role in the wellness process, society has a responsibility to promote the well-being of all individuals. Many personal health books at the time focused on personal responsibility for health. That is indeed a major part of health, but we wanted to emphasize a model where individuals make health decisions within the context of their relationships, cultures, communities, policies, and physical surroundings. What eventually came of that conversation was the decision to create a book that emphasizes putting personal health in context.

Since we started working on the first edition of what became *Your Health Today*, we have visited health educators across the country and learned from their many different approaches to teaching personal health. We have tried to incorporate a range of those strategies and resources into our revisions and our own personal health courses.

Like instructors who use our book, we too have been challenged through the years by the dynamic nature of health. The world is changing—interpersonally, financially, politically, and environmentally—so, what does that mean to personal health? How do students of the 21st century learn best, and where does their current understanding of personal health come from? What will be the health priorities of the future? What skills will today's students need 20 years from now to maintain a healthy lifestyle? Examining history and our own beliefs about those questions encouraged us to incorporate several health topics that are not traditionally covered (or covered only briefly) in other personal health books. As learners, we also believe that today's students generally do not need to memorize facts so much as learn how to access and assess health information, critically consider implications, and respond. In essence, our program fills the need for an approach to personal health that balances individual and cultural responsibility.

Our mission and passion for this endeavor has remained true years later. We continue to learn how to create small change in personal, professional, and community lives in an attempt to improve the health outcomes for all future generations. We hope that the seventh edition will challenge students to think of themselves as agents of change. Students can make personal changes in lifestyle behaviors that affect their own health, and they can also influence communities to make changes in response to social, political, and economic factors that affect the health of broader segments of the population.

*Michael Teague  
Sara Mackenzie  
David Rosenthal*



Courtesy of Maria Richter





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School of Public Health



Courtesy of Rebecca Sale

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Who knew so many things influence the choices you make?



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Friendship matters  
to your health.



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Physical activity benefits your physical, cognitive, and emotional health.



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Many body types and sizes can be associated with good health.



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Should recreational use of marijuana be legal?



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What vaccines are recommended?



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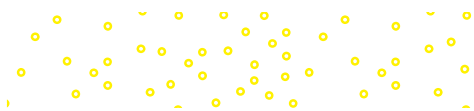
What foods are part of a heart-healthy diet?



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How loud is too loud?



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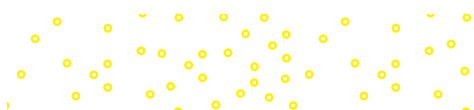
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What can and can't be recycled?



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# Learn Without Limits

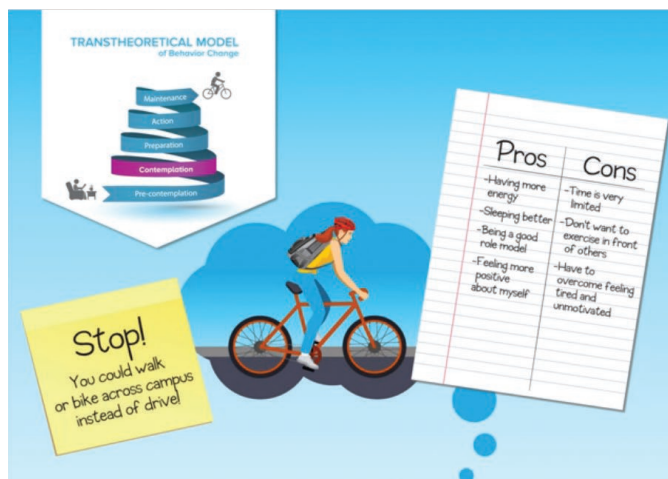
*Your Health Today* teaches personal health from a perspective of social responsibility. While each of us has a unique set of individual characteristics that shape our health, environmental factors have an impact on our well-being, too. *Your Health Today* incorporates the individual, interpersonal, and broader social factors that affect our health, acting as a guide for healthy living in college and beyond.

The student-focused features in the seventh edition of *Your Health Today* highlight current topics, illustrate concepts with new photos and graphs, and invite dialogue among personal health students. These features serve as entry points to classroom discussion, critical thought, and practical application of health concepts to students' lives. Many also have accompanying assignable online activities within Connect.

## Connect is proven effective


 **McGraw-Hill Connect®** is a digital teaching and learning environment that improves performance over a variety of critical outcomes; it is easy to use; and it is proven effective. Connect® empowers students by continually adapting to deliver precisely what they need, when they need it, and how they need it, so your class time is more engaging and effective. Connect for Personal Health offers a wealth of interactive online content, including health labs and self-assessments, video activities on timely health topics, and practice quizzes with immediate feedback.

New to this edition are assignable and assessable Concept Clips, which help students master key personal health concepts. Using colorful animation and easy-to-understand audio narration, Concept Clips provide step-by-step presentations to promote student comprehension. Topics include the stages of change model, diabetes types and metabolism, changes to the Nutrition Facts label, the cardiorespiratory system, and the stress response.




Also new are NewsFlash activities, which tie current news stories to key personal health concepts. After interacting with a contemporary news story, students are assessed on their understanding and their ability to make the connections between real-life events and course content. NewsFlash covers topics such as hands-only CPR, reducing sun damage, and vaccination rates.

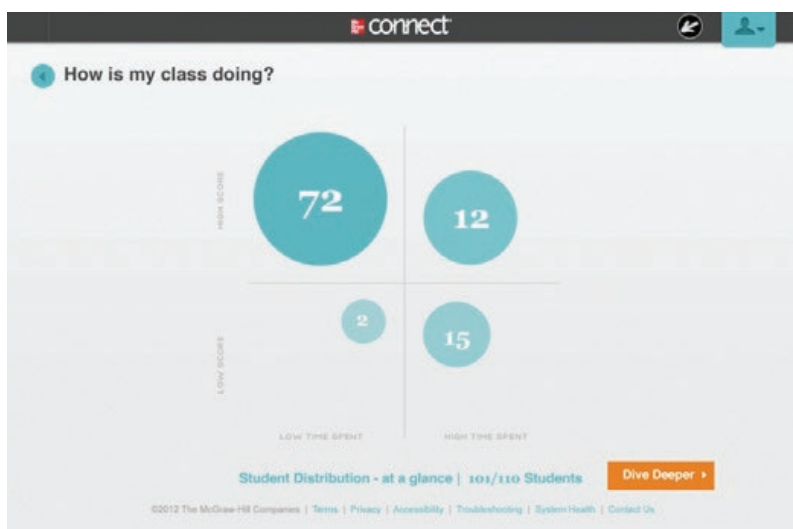
## Personalized Learning

 **SMARTBOOK**™ Available within Connect, **SmartBook**® makes study time as productive and efficient as possible by identifying and closing knowledge gaps. SmartBook identifies what an individual student knows and doesn't know based on the student's confidence level, responses to questions, and other factors. SmartBook builds an optimal, personalized learning path for each student, so students spend less time on concepts they already understand and more time on those they don't. As a student engages with SmartBook, the reading experience continuously adapts by highlighting the most impactful content a student needs to learn at that moment in time. This ensures that every minute spent with SmartBook is returned to the student as the most value-added minute possible. The result? More confidence, better grades, and greater success.

New to this edition, SmartBook is now optimized for phones and tablets and accessible for students with disabilities using interactive features.

## Advanced Reporting

 **connect** **INSIGHT**™ **Connect Insight**® is Connect's one-of-a-kind visual analytics dashboard—available for both instructors and students—that provides at-a-glance information regarding student performance, which is immediately actionable. By presenting assignment, assessment, and topical performance results together with a time metric that is easily visible for aggregate or individual results, Connect Insight gives the user the capability to take a just-in-time approach to teaching and learning, which was never before available. Connect Insight presents data that empowers students and helps instructors improve class performance in a way that is efficient and effective.



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## Dietary Analysis Tool

NutritionCalc Plus is a suite of powerful dietary self-assessment tools that help students track their food intake and activity and analyze their diet and health goals. Students and instructors can trust the reliability of the ESHA database while interacting with a robust selection of reports. This tool is provided at no additional charge inside Connect for *Your Health Today*, seventh edition.

# Features of *Your Health Today*

**Action Skill-Builders** present manageable first steps in making meaningful behavior changes and show that a small change can make a big difference. Topics include moving toward healthier eating, getting a better night's sleep, overcoming barriers to physical activity, and discussing contraception.



**Consumer Clipboards** show students how to weigh information, evaluate product claims, and make savvy health-related choices in a world full of misinformation and gimmicks. Topics include getting the most out of menu labeling, evaluating online health information, and selecting a pair of running shoes.



**Public Health Is Personal** boxes highlight broader community factors that influence personal health. They ask students to consider how systemic factors and policies that might seem remote—free early childhood education, community-sponsored needle-exchange programs, or community walkability—can have a profound impact on individual health choices and priorities.



**Who's at Risk?** boxes highlight data that show inequities in health outcomes and trends among diverse groups of people: for example, causes of death by geographic region and race, drinking problems by gender, or illicit drug use by geographic region. Featuring graphs and visuals, these boxes invite students to consider and critically discuss systemic reasons for these trends.



**Life Stories** boxes feature lively and relatable stories that personalize chapter concepts and show how topics play out in real life. Among the topics covered are online genetic testing, unintended pregnancy, culture and eating habits, and sexual assault.



**Starting the Conversation** boxes are designed to invite meaningful classroom discussion. Each box poses a question, presents information to inform the discussion, and ends with two critical thinking questions. Topics in the seventh edition include the role of voting in affecting public policy, the reason asthma rates are rising, and proposals to lower the legal limit for driving under the influence.



**You Make the Call** features present the facts behind a contentious social issue, followed by the pros and cons of two opposing positions. Topics include health insurance access, marijuana legalization, vaccination requirements for college students, mandatory calorie counts on menus, and digital connectivity.



A **Personal Health Portfolio** activity accompanies each chapter and can be completed on paper or online. Each includes a self-assessment or journaling activity and self-reflection questions. Students explore their personal health strengths and challenges and reflect on how friends, family, culture, community, and policy influence their personal health decisions. Activities include developing a family health tree; monitoring sleep, food, and activity levels; and assessing personal levels of stress.

# Chapter-by-Chapter Changes—Informed by Student Data

Changes to the seventh edition include new research findings, updated statistics, and current hot topics that affect students' health choices and challenges. We have used inclusive language whenever possible. New pictures were added to chapters for relevance. Personal Health Portfolios were updated as necessary and moved from appendices to the end of chapters for convenient student access. Revisions to the seventh edition were also guided by student performance data collected anonymously from the thousands of students who have used Smartbook with *Your Health Today*. Because virtually every text paragraph is tied to several questions that students answer while using Smartbook, the specific concepts with which students are having the most difficulty can be pinpointed through this empirical data.

## Chapter 1: Self, Family, and Community

- Reorganized discussion of health equities and socioecological model. Heredity and creating a family health tree is now the last section of the chapter.
- Updated discussion of health equity, with international comparison.
- New figure clarifying the stages of change.

## Chapter 2: Mental Health and Stress

- Expanded discussion of the developing adolescent brain.
- New discussion of neurodevelopmental disorders, such as ADHD and the autism spectrum.
- Updated and expanded discussion of PTSD.
- Updated citations and relevant demographic statistics.
- Modified resilience scale.

## Chapter 3: Social Connections

- Updated discussion of gay and lesbian partnerships to reflect the Supreme Court decision legalizing gay marriage.
- Updated “Who’s at Risk?” box that looks at divorce rates not only by ethnicity, but also by gender and education.
- New “Starting the Conversation” box that addresses voting as a way to influence public policy.
- New “You Make the Call” box.

## Chapter 4: Sleep

- New “Public Health Is Personal” box on whether accidents resulting in fatalities or serious injuries caused by sleep deprivation should be viewed as criminal acts in the judicial system.

- Revised “Action Skill-Builders” box that looks more deeply at how blue light from electronics disrupts sleep and how to prevent this disruption with blue-light filters.
- Expanded section on pain and sleep.
- New section on how unfamiliar environments—for example, a hotel room—interfere with good-quality sleep, and a new “Life Stories” box on this topic.

## Chapter 5: Nutrition

- Beverage nutrient ratings from the Beverage Guidance Panel added to the chapter’s “Types of Nutrients” section.
- Discussion of the paradox of cooking meat too rare or too well to avoid food pathogens or cancer.
- Discussion of the cafeteria traffic-light system used by many colleges and universities to help students make healthy food choices.
- Coverage of the USDA’s new label mandates that help consumers to understand food expiration dates.
- Inclusion of the caramel food color (4-Mels) used in diet soda as a possible carcinogen.
- Addition of the health concerns of people who are gluten sensitive and adopt gluten diets but do not have celiac disease.
- New section on food insecurity on college campuses.
- New “Public Health Is Personal” box on hunger on campus.

## Chapter 6: Fitness

- Added section on neuromuscular fitness (functional fitness).
- New discussion of exercising in dirty air.
- New “Public Health Is Personal” box, on active lifestyles and built environments, discussing how communities are being designed to facilitate physical activity.
- A new planning framework that facilitates active lifestyles, the Ecological Model for Designing Active Communities.

## Chapter 7: Body Weight and Body Composition

- Updated and expanded discussion of the multifactorial effect of genes on BMI and obesity.
- Revised approach to types of diets that emphasizes critical thinking about their characteristics and individual dieting goals.
- Increased emphasis on a holistic approach to body composition and health.
- New “Public Health Is Personal” box about walkable communities.

### Chapter 8: Body Image

- New focus on positive body image development and resiliency.
- Increased inclusion of gender identity and sexual identity formation.
- Updates on media role, incorporating social media and media literacy.
- Updated data on and discussion of body art and cosmetic surgery.

### Chapter 9: Alcohol and Tobacco

- New “Who’s at Risk?” box, on heavy drinkers at risk for alcohol-related diseases, with risks according to diversity classification.
- Discussion of Wernicke-Korsakoff as a “wet brain” disease.
- New “Starting the Conversation” box about whether to lower the blood alcohol limit for driving under the influence.
- New section on what happens to the body after someone stops drinking alcohol.
- New section on how states are cracking down on fake IDs used for underage alcohol consumption.
- Updated information about FDA efforts to regulate tobacco, particularly e-cigarettes.

### Chapter 10: Drugs

- Updated table of “Commonly Abused Drugs.”
- Addition of synthetic cannabinoids to “Emerging Drugs of Abuse.”
- Updated discussion of marijuana legalization.
- Modified discussion of sources of pain relievers.
- Expanded section on opiate addiction and overdose.

### Chapter 11: Sexual Health

- Discussion of “stealthling” during intercourse as a potentially criminal act, and a new “Life Stories” box on this topic.
- A new “Public Health Is Personal” box on framing sex trafficking as a public health issue.
- A new section on the future of sex, addressing virtual reality, teledildonics, augmented reality, affective technology, and sex robots.
- A new figure, “The Future of Sex.”

### Chapter 12: Reproductive Choices

- Reordering of presentation of contraceptives to emphasize long-acting reversible contraceptives.
- Addition of LARCs to the “Starting the Conversation” box.
- More inclusive language and data on sexual-minority and gender-minority reproductive health.

### Chapter 13: Infectious Diseases

- Updated discussion of food-related pathogens, including the 2017 SoyNut Butter–related *E. coli* outbreak.
- Updated “Starting the Conversation” box about the Zika virus and the risk for pregnant women.
- Updated figure about the adult immunization schedule.
- Updated and expanded discussion of antibiotic resistance in both the chapter and in the “Public Health Is Personal” box introducing the One Health model.
- Updated statistics and focus on prevention of HIV, including new sections on treatment as prevention (TasP), post-exposure prophylaxis (PEP), and pre-exposure prophylaxis (PrEP).

### Chapter 14: Cardiovascular Disease, Diabetes, and Chronic Lung Diseases

- Updated discussion of aspirin therapy in the “Consumer Clipboard” box.
- “Promoting Cardiovascular Health” reorganized to focus on the Life’s Simple 7, behaviors and factors that promote cardiovascular health.
- Updated data on and impact of chronic diseases.
- Expanded discussion of rising asthma rates and contributing factors.

### Chapter 15: Cancer

- Updated cancer diagnosis and death data.
- New discussion of disparities in access to cancer screening by education, sexual identity, insurance status, and immigration status.

### Chapter 16: Injury and Violence

- In-depth discussion of campus speech and conduct codes to confront hate speech.
- New “You Make the Call” box on free speech on campus.
- New “Starting the Conversation” box on why colleges and universities are soft targets for terrorism.
- A new “Public Health Is Personal” box on college grievance procedures for sexual violence cases.
- New coverage of infotainment systems causing distracted driving, safety of recreational drones, campus security uses of drones for safety, LED light strips for accident prevention, textalyzer used by law enforcement to crack down on texting while driving, Vision Zero campaign for bicycle safety, coercive control as a form of intimate partner violence, historical efforts by black colleges to respond to campus sexual assaults, safety apps, and concealed guns marketed to women.
- New Personal Health Portfolio activity focuses on violence prevention and personal safety.

**connect** Chapter 17: Complementary and Integrative Medicine

- Revisions throughout to reflect the National Center for Complementary and Alternative Medicine's name change to the National Center for Complementary and Integrative Health.
- Reorganization so that two aspects of complementary medicine—natural products and mind and body practices—are followed by the discussion of alternative medical systems

**connect** Chapter 18: Environmental Issues

- A new “Public Health Is Personal” box on whether the United States should pull out of the Paris Agreement.

- New sections on ocean acidification and coral reefs.
- A more in-depth discussions of smart growth.
- An updated Personal Health Portfolio activity with more personal assessment instruments on carbon, water, and lifestyle footprint.
- Discussion of the health hazards of PBDEs as a source of indoor pollution.
- Discussion of lead exposure in Flint, Michigan, as an example of health problems from lead in public water systems.
- Discussion of PFASs in water.

# Your Course, Your Way



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## Instructor Resources

Instructor resources available through Connect for Personal Health include a Test Bank, Image Bank, and PowerPoint presentations for each chapter. All test questions are available within TestGen™ software. PowerPoint presentations now contain improved accessibility.

## Acknowledgments

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# Self, Family, and Community

# 1



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## Ever Wonder...

- why it's so hard to break a bad habit?
  - how much your parents' health predicts your own?
  - how your neighborhood influences your health?
- 



As individuals, we are all responsible for our own health. Each of us makes choices about how we live—about whether to be physically active, whether to eat a healthy diet, whether to get enough sleep, and whether to see a doctor. And yet to talk about health only as a matter of individual choice assumes that we are always aware of the choices we are making and that we are always “free” to make them. The truth is that there are differences in the way we live and the contexts in which we make decisions.

In this book, we explore personal health within the context of our social, cultural, and physical environment. We recognize that individuals are ultimately responsible for their own health, but we also know that people make healthier choices when the environment in which they live, learn, work, and play supports those choices. Our goal is to challenge and empower individuals to enact personal and collective change to improve their health and the health of their communities.

## YOUR HEALTH IN CONTEXT

To begin, we consider the difference between the terms *health* and *wellness*, and then we explore the personal and environmental factors that shape and influence our personal health.

### health

A state of complete physical, mental, social, and spiritual well-being.

### wellness

A process of adopting patterns of behavior that can lead to improved health and heightened life satisfaction; wellness has several domains and can be conceptualized as a continuum.

### Health and Wellness

Traditionally, people were considered “healthy” if they did not have symptoms of disease. In 1947, the World Health Organization (WHO) broke new ground with its positive definition of **health** as a state of complete physical, mental, and social well-being, not merely the absence of disease and infirmity. *Physical health* refers to the biological integrity of the individual. *Mental health* includes emotional and intellectual capabilities, or the individual’s subjective sense of well-being. *Social*

*health* means the ability of the individual to interact effectively with other people and the social environment.<sup>1</sup>

More recently, a *spiritual domain* has been added to the WHO definition, reflecting the idea that people’s value systems or beliefs have an impact on their overall health. Spiritual health does not require participation in a particular organized religion but suggests a belief in (or a search for) some type of greater or higher power that gives meaning and purpose to life. Spiritual health involves a connectedness to self, to significant others, and to the community.

**Wellness** is a slightly different concept from health. It is generally defined as an active process of adopting patterns of behavior that can lead to improved health and heightened life satisfaction. Like health, wellness encompasses multiple dimensions (note that wellness includes more dimensions than health does):

- Physical
- Emotional
- Intellectual
- Spiritual
- Interpersonal or social
- Environmental
- Occupational

Wellness may also be conceptualized as a continuum. At one end is extreme illness and premature death; at the other is wellness and optimal health (see Figure 1.1). Historically, Western medicine has focused on the illness side of the continuum, treating people with symptoms of disease. Other approaches focus on the wellness side of the continuum, seeking to understand root causes of health to help people live their lives fully, with vitality and meaning. For example, in the approach called *salutogenesis*, individuals (or communities) are encouraged to assess their current situation, culture, life stress, and assets in order to find reasons to move in a direction that promotes health and then develop the capacity to do it.<sup>2</sup>

How do you know whether you are healthy? Does your body physically do what you want it to do? Can you actively participate in daily life? Are your physical needs for food and shelter met? Do you awake feeling rested? Mentally sharp?



figure 1.1 The wellness continuum.

Source: Adapted from O’Donnell, M.P. (1986). Definition of health promotion. *American Journal of Health Promotion*, 1(5).