



Preface

We think of ourselves as consumers when we purchase cars and computers and washing machines. We are also consumers when we purchase the food we eat. Even as we make decisions about the food we eat everyday, we again become consumers of nutrition-related information. At the same time we are literally bombarded with media messages concerning nutrition and health, many of which are unreliable and designed to promote sales of products and services. Many people, however, lack the knowledge and skills needed to critically analyze such information and decide whether or not to apply it to their own lives.

Helping students become better-informed consumers, particularly as it relates to food and nutrition, is the foundation of *Nutrition for Healthy Living*. This major theme runs throughout the textbook by providing students with practical information as well as the scientific foundation needed to understand and implement informed choices about their health and diet. By reading *Nutrition for Healthy Living*, students will not only learn basic principles of nutrition, they will be able to critically evaluate various sources of nutrition information and to apply sound nutrition practices to improve their lives.

Who was this book written for?

Writing a nutrition textbook is not an easy task, but throughout the process I have relied on my experience teaching nutrition, foods, biology, and health classes at both the university and community college level to provide valuable insights into the diversity, as well as needs, interests, and capabilities, of today's students. In addition, the manuscript reviews and syllabi provided by colleagues helped define the shared goals in teaching introductory nutrition courses, which in turn helped shape the content of this text.

Nutrition for Healthy Living is intended for students who are interested in learning about nutrition for personal reasons, as well as students considering majoring in nutrition, nursing, or other health and science-related fields. Keeping in mind the varying academic backgrounds of students enrolled in introductory nutrition courses, I sought to create a resource that

provides both a sound foundation in science as well as real-life applications of nutrition. I wrote the text with the understanding that most students will not have had college-level science courses prior to this course, and that an introductory textbook must appeal to a broad range of interests, from English majors to nursing students. My hope is that this first course, along with my textbook, can spark students' interest in healthy nutrition and possibly even inspire some students to consider nutrition as their major.

The difference is A B C

As I set about writing, I felt strongly that I wanted to craft a fresh alternative to established textbooks, while maintaining a focus on concepts fundamental to introductory nutrition courses. Building upon my experiences as coauthor of a college-level personal health textbook, I sought to develop a nutrition textbook that was not only scientifically up-to-date but also included consumer-oriented content and features. I wanted to create a textbook would be fun to read, engage students' interest, be well organized, and have features that contribute to the pedagogy without being distracting. As we gathered feedback from numerous instructors, the advantages our text would offer took shape---what we have come to refer to as the *A B C's of Nutrition for Healthy Living*.

A = Accessible Science

Nutrition is an "offspring" science that requires a basic understanding of certain chemical and physiological concepts and terms. Ignorance about chemistry and physiology contributes to food faddism and health quackery. By providing a solid scientific foundation, nutrition educators can dispel commonly held but inaccurate beliefs, such as "when you're inactive, muscle turns into fat" and "cellulite is a special type of body fat."

Nutrition for Healthy Living recognizes the importance of introducing scientific principles in a manner that introductory nutrition students can grasp and retain. This information is presented at a level that every college student can understand. My primary goal for students using this book is

the same as it is for the introductory nutrition courses I teach—I want students to leave this course with a solid understanding of basic nutritional science so that they can make intelligent, practical choices that will lead to improved nutrition and health.

As an example, Chapter 4 (Body Basics) presents basic chemistry principles as they apply to the study of nutrition at a level that students can easily understand. This chapter, for example, introduces and defines terms such as “acid,” “basic,” enzyme,” and “solvent.” To become knowledgeable about nutrition requires a certain level of understanding of important scientific principles. Because students and courses vary in the depth of scientific foundation required, we have factored in some flexibility. For example, Ch. 4 is divided into two main sections, chemistry and human physiology, so professors can choose to skip the chemistry section if they prefer.

B = Brief Organization

In developing the structure of this book, a common thread emerged; too often instructors could not adequately cover all the material in their textbooks. Based upon their feedback we have chosen to organize the core content into thirteen chapters. I believe this organization makes teaching introductory nutrition more manageable and better fits the timeframe of most courses. Important topics that might not warrant a full chapter, such as global nutrition concerns, alcohol abuse, and eating disorders, are presented in a “Highlight” at the end of chapters. Chapter 13 is devoted entirely to nutrition during pregnancy, infancy, childhood, adolescence, and the older adult years. Furthermore, key aspects of world nutrition and life cycle nutrition are also incorporated into relevant chapters throughout the book. *Nutrition for Healthy Living* covers the core material you need in a format that is logical and practical for nearly all courses:

- Chapter 1 introduces students to nutrition and nutrients, and presents ten key nutrition concepts, including “Most naturally-occurring foods are mixtures of nutrients” and “Eating a variety of foods can help ensure the nutritional adequacy of a diet.”
- Chapter 2 presents basic information about scientific methodology as it relates to nutrition research and provides tips for becoming a more wary consumer of nutrition- and health-related information.
- Chapter 3 discusses dietary standards and guidelines, food groups and guides, and how to use information provided on nutrient labels.

- Chapter 4 introduces basic chemical and physiological concepts and key terms that relate to the science of nutrition.
- Chapters 5, 6, 7, 8, and 9 present basic and practical information about the nutrients, such as their major functions in the body, food sources, and roles in health.
- Chapters 10, 11, 12, and 13 focus on applying basic nutrition information for special needs or important concerns. Chapter 10, for example, covers weight management; Chapter 12 features information about food-borne illness.

Nutrition for Healthy Living follows a more traditional approach to the study of nutrition in that the textbook’s organization focuses on nutrients rather than certain tissues or diseases. Additionally, the textbook integrates health information within each chapter where it is appropriate rather than relegate it to a single chapter near the end of the textbook. For example, the chapters that discuss nutrients provide fundamental information first and then present applications, including the nutrient-related health effects of certain lifestyle practices or dietary choices. Additionally, the quantity and length of boxed features in the chapters are limited, as they tend to disrupt the flow of content and students often skip reading them.

C = Consumer Focus

Regardless of their backgrounds, students are consumers of nutrition information from a wide variety of sources, including popular magazines, diet books, infomercials, and the Internet. Oftentimes these students arrive in class with a host of misconceptions about their diet and health. As nutrition educators we seek to resolve these mistaken beliefs and to impart sound, reliable nutrition and health information. We also strive to equip our students with the tools they need to make intelligent, informed decisions beyond the classroom. You will find a practical introduction to the issue of becoming an informed consumer of nutrition and nutrition-related information in Chapter 2, Evaluating Nutrition Information.” Chapter 2 is unique from other texts in that it provides students with a thorough discussion of how to evaluate the sources and messages of nutrition- and health-related information for reliability.

You will also find topics that relate to nutrition consumerism woven throughout the textbook chapters. Other examples of how the theme of consumerism is integrated throughout the book follow.

- *Food and Nutrition Tips* present practical suggestions that apply material presented in a section. These tips provide information students can use everyday and for the rest of their lives. For example, tips for selecting fresh foods, managing energy intake, and keeping foods safe to eat are featured.
- *Real People, Real Stories* feature information about people who actually have recovered from or currently experience conditions such as type 1 diabetes, eating disorders, and hypertension. This feature is designed to help students recognize the daily challenges people with such conditions face and the role diet and physical activity play in managing health.
- *Recipes for Healthy Living* is a practical application of nutrition and food information that will appeal to college students. Each chapter features one or more easy-to-make, kitchen-tested recipes that help bring the chapter's content to life (e.g., complementary proteins in black bean burritos). Information about the energy and key nutrients per serving is also presented as well as a pie-chart displaying the percentages of energy from carbohydrate, protein, and fat. This feature demonstrates that preparing nutritious foods can be fun and economical. By trying the recipes, students can develop basic food prep skills and may be inspired to cook more foods "from scratch." As a result, they may rely less on vending machines and fast food outlets.
- *Did You Know?* This margin feature notes interesting nutrition-related tidbits that apply to information presented in that section of the chapter. Some of these features set the record straight concerning commonly held beliefs about food and nutrition.

Readability & Style for Today's Student

A key pedagogical element of any college textbook is readability. As I wrote each chapter I strove to maintain a balance between clear, technically accurate narrative and an engaging, easy-to-read writing style. I carefully chose examples that students can relate to and provided tools for applying healthy nutritional practices to their own lives. Additionally, to ensure accuracy the content has been extensively researched with in-text citations and references listed at the end of each chapter.

Another way we sought to appeal to today's students is by creating beautiful, pedagogically based illustrations and creative page layouts. Keeping in mind that many of us are visual learners, photos were selected and illustrations rendered to be visually appealing as well as instructional. It is important to note the use of products in photos is for example representation only and does not constitute an endorsement.

Assessing & Evaluating Progress

One of our primary goals as nutrition educators is to ensure that our students leave our course with a better understanding of the nutrition principles and concepts needed to improve their diet and health. In order to assess how well we are able to achieve that goal, many schools are opting to implement Student Learning Outcomes as a way to measure what a student has actually learned upon completing an introductory nutrition course. Student Learning Outcomes can also be used to help instructors identify areas to improve or refine teaching methods. *Nutrition for Healthy Living* has been developed around the following course-wide outcomes.

Student Learning Outcomes

1. Identify functions and sources of nutrients.
2. Demonstrate basic knowledge of digestion, absorption, and metabolism.
3. Apply current dietary guidelines and nutrition recommendations.
4. Analyze and evaluate nutrition information scientifically.
5. Relate roles of nutrients in good health, optimal fitness, and chronic diseases.
6. Summarize basic concepts of nutrition throughout the life span.
7. Evaluate a personal diet record using a computer database.

In addition each chapter opens with a list of chapter-specific learning outcomes that build upon the broader course-wide outcomes. The Chapter Learning Outcomes help students prepare for reading the chapter and also clarify what they are expected to achieve. These measurable outcomes are further supported by assessment methods and study aids found within the chapters.

- *Quiz Yourself.* This pretest is comprised of five true or false questions placed at the end of chapter openers; answers are provided at the end of the chapter. The purpose of "Quiz Yourself" is to stimulate interest in reading the chapter. By taking

the quiz, students may be surprised to learn how little or much they know about the chapter's contents.

- **Critical Thinking Questions:** Critical thinking involves higher-level cognitive skills, including applying, analyzing, synthesizing, and evaluating information. This assessment features a series of thought-provoking questions at the end of the chapter. The questions help students develop higher level cognitive skills using nutrition-related content. Acquiring and/or sharpening these skills can help students become better consumers of nutrition-related information.
- **Concept Checkpoints:** "Concept Checkpoints" are review questions, many of which involve critical thinking skills, posed at the end of major headings. Such questions enable students to test their acquisition of information in the section.
- **Chapter Quiz:** Each chapter ends with a series of ten or more multiple-choice questions that test students' comprehension and recall of information presented in the chapter. Answers to the quiz questions are in an appendix. The multiple choice questions prepare students for classroom testing, because they are similar in type and format to those in the test bank. The test questions are also correlated to the course and chapter Student Learning Outcomes.

- **Personal dietary analysis:** Many chapters include an end-of-chapter activity for analyzing personal eating habits. Most of these activities require the use of a dietary analysis software program, such as McGraw-Hill's NutritionCalc Plus. Students can gain insight into their eating behaviors by completing this activity.
- **End-of-chapter summary:** This feature provides a brief review of chapter's main points. Sometimes students have difficulty determining the key points in a chapter; the chapter summary helps them focus on these points.

More Helpful Pedagogical Tools

Students encounter an incredible array of new concepts and terminology as they begin their study of nutrition. Each chapter is designed with a learning system that will assist them in assimilating this new information:

- **Key terms and pronunciation guide:** Key terms, definitions, and pronunciations are provided in the margins on the same two-page spread where the terms first appear in the chapter. A glossary of these terms is at the end of the textbook. These tools facilitate students' recall and understanding of important, and possibly unfamiliar, terminology.
- **References:** *Nutrition for Healthy Living* includes in-text citations and extensive lists of references at the end of chapters. References provide readers with access to sources of information for more in-depth understanding or for topics that hold particular interest.