nutrition & you

GUIDE STUDENTS TO A DEEPER UNDERSTANDING OF NUTRITION
GETTING TO THE CORE OF WHAT STUDENTS WANT TO LEARN ABOUT NUTRITION

**VISUAL Chapter Summary**

1. Describe the three classifications of lipids and explain the differences in the structure of triglycerides, phospholipids, and cholesterol.

2. Describe how fat is digested, absorbed, and transported in the body.

3. Define the dietary recommendations for total fat, the essential fatty acids, saturated fat, cholesterol, and trans fat.

4. Identify the major food sources of the different types of fats, including the essential fatty acids, saturated fats, and trans fats.

5. Describe the functions of fat in the body.

6. Describe the effects of fat in the body.

7. Compare the different fat substitutes currently used in food products.

**A CASE STUDY**

Declined for Diabetes?

Joaquin has one factor in his diet that may put him at risk for developing type 2 diabetes. He eats breakfast at the donut shop and lunch at the hamburger place. He eats fast food several times a week and enjoys his meals out. His weight is higher than it was when he graduated from college—50 pounds more than he did then. Joaquin is a 54-year-old math professor who weighs 208 pounds. He has a sedentary lifestyle and does not exercise much. He has a family history of heart disease, including diabetes, and he is aware that he needs to make changes to his diet and lifestyle to reduce his risk of developing type 2 diabetes.

Think About It

Why do Joaquin’s lifestyle choices increase his risk for type 2 diabetes? How can he prevent developing diabetes?

**Updated Visual Chapter Summaries tied to Learning Outcomes**

Students now have a clear learning path through each chapter, organized by learning outcomes. Each chapter starts with numbered outcomes, which then are repeated at the beginning of the associated chapter section. The end-of-chapter Visual Chapter Summary is organized by outcome as well, reinforcing the student’s review. The summaries include important art and photos from the chapter and serve as concise study and review tools, with accompanying activities in Mastering Nutrition. In addition, Check Your Understanding questions encourage student review and indicate by learning outcome those sections that need further study.

**Health Connection: A Case Study**

The connections between nutrition and health are explored in new case studies written for every chapter. Students are introduced to a person experiencing a health problem and explore the interplay between nutrition and health, with follow-up critical thinking questions.
Carbohydrate digestion begins in the mouth and ends with the absorption of the monosaccharides glucose, fructose, and galactose in the small intestine.

**ORGANS OF THE GI TRACT**

- **MOUTH**: Mastication mixes food with saliva. Salivary amylase breaks down amylose and amylopectin into smaller chains of carbohydrates.
- **STOMACH**: The acidity of the stomach inactivates the salivary amylase; thus, very little digestion of carbohydrates occurs in the stomach.
- **SMALL INTESTINE**: Pancreatic amylase breaks down the amylose, amylopectin, and smaller chains of carbohydrates into maltose, a disaccharide.
- **LARGE INTESTINE**: All starches and simple sugars are broken down and absorbed in the small intestine; only fiber passes into the large intestine. Bacteria in the colon metabolize some of the fiber. The majority of fiber is eliminated in the stool.

**ACCESSORY ORGANS**

- **SALIVARY GLANDS**: Produce salivary amylase.
- **PANCREAS**: Produces pancreatic amylase that is released into the small intestine via the pancreatic duct.
- **LIVER**: Glucose is taken up by the liver from the blood. Most glucose is returned to the bloodstream; the liver can use glucose for energy, convert it to glycogen, or store it as fat.

Focus Figure Walkthroughs

Author Joan Salge Blake narrates a video tour of full-page Focus Figures. These colorful figures, designed to teach key concepts in nutrition through bold, clear and detailed visual presentations, are now enhanced with dynamic media. When students scan the QR code, they see the figure come to life, accompanied by the author’s detailed walkthrough of each part of the figure, as if she were breaking it down for a student in person. Already designed to guide students through complex processes using text and stepped-out art, these figures now make tough topics even clearer and easier to understand.
CONTINUOUS LEARNING
BEFORE, DURING, and AFTER CLASS with MasteringNutrition™ with MyDietAnalysis

Mastering is the most effective and widely used online homework, tutorial, and assessment system for the sciences. MasteringNutrition with MyDietAnalysis includes content specific to introductory nutrition courses, delivering self-paced tutorials that focus on your course objectives, provides individualized coaching, and responds to each student’s progress.

MyDietAnalysis is now available as single sign on to MasteringNutrition. For smartphone users, a new mobile website version of MyDietAnalysis is available. Students can track their diet and activity intake accurately, anytime and anywhere, from their mobile devices.

BEFORE CLASS
Dynamic Study Modules provide students with a preview of what’s to come

Dynamic Study Modules enable students to study effectively on their own in an adaptive format. Students receive an initial set of questions with a unique answer format asking them to indicate their confidence.

Once completed, Dynamic Study Modules include explanations using material taken directly from the text.

DURING CLASS
Learning Catalytics engage students during lecture

Learning Catalytics, a “bring your own device” student engagement, assessment, and classroom intelligence system, allows students to use their smartphone, tablet, or laptop to respond to questions in class.
Nutrition Animations explain tough topics during class

34 Nutrition Animations explain big picture concepts that help students learn the hardest topics in nutrition. These animations are provided as embedded media within your PowerPoint deck for easy play and review during class.

The updated animations are also mobile-ready and available with assessment within MasteringNutrition. These animations address tough topics and common misconceptions and feature a more contemporary look to appeal to today's students.

Topics include:
- DRI Determination
- Reading Labels
- Carbohydrate Digestion
- Lipid Digestion
- Basic Absorption Mechanisms
- Carbohydrate Absorption
- Protein Absorption
- Vitamin A and the Visual Cycle and much more

Additional Engaging In-Class Media

Instructors can also incorporate dynamic media from the TeachingToolkit DVD into lecture and build class discussions and activities around Nutrition Animations, ABC News Lecture Launchers, and more. For more information, please see the last page of this walkthrough.
Mastering Nutrition™

AFTER CLASS

Easy-to-Assign, Customize, and Automatically Graded Assignments

The breadth and depth of content available to you to assign in Mastering is unparalleled, allowing you to quickly and easily assign homework to reinforce key concepts.

NEW

Visual Chapter Summary Coaching Activities

These Mastering Nutrition activities complement each Visual Chapter Summary with hints and feedback that help students with their understanding. Each covers one or more learning outcome and references each learning outcome within the activity.

ABC News Lecture Launcher videos

Current videos cover up-to-date hot topics in the nutrition field, bringing nutrition to life and sparking discussion. These are accompanied by multiple-choice questions with wrong-answer feedback.

UPDATED

18 NutriTools Build-A-Meal Activities

Dynamic coaching activities allow students to apply nutrition concepts to improve their health through interactive mini-lessons that provide hints and feedback. The Build a Meal, Build a Pizza, Build A Salad, and Build A Sandwich tools have been carefully rethought to improve the user experience, making them easier to use. They are now HTML5 compatible.
NEW

Enhanced Interactive eText 2.0

This enhanced, interactive eText is complete with embedded videos, animations, author-narrated Focus Figure Video Walkthroughs, multiple choice questions, and drag and drop activities designed for students to interact with the material, not just read it. eText 2.0 is mobile friendly and ADA accessible.

- Now available on smartphones and tablets.
- Seamlessly integrated videos and other rich media.
- Accessible (screen-reader ready).
- Configurable reading settings, including resizable type and night reading mode.
- Instructor and student note-taking, highlighting, bookmarking, and search.
EVERYTHING YOU NEED TO TEACH IN ONE PLACE

Teaching Toolkit DVD for Nutrition & You
The Teaching Toolkit DVD provides everything that you need to prep for your course and deliver a dynamic lecture, in one convenient place. These valuable resources are included on three disks:

DISK 1
Robust Media Assets for Each Chapter
- ABC News Lecture Launcher videos
- Practical NutritionTips videos
- Nutrition Animations
- PowerPoint Lecture Outlines
- Media-Only PowerPoint® slides for easy importing of videos and animations
- PowerPoint clicker questions and Jeopardy-style quiz show questions
- Files for all illustrations and tables and selected photos from the text

DISK 2
Comprehensive Test Bank
- Test Bank in Microsoft Word, PDF, and RTF formats
- Computerized Test Bank, which includes all the questions from the printed test bank in a format that allows you to easily and intuitively build exams and quizzes

DISK 3
Additional Innovative Supplements for Instructors and Students
For Instructors
- Instructor Resource and Support Manual in Microsoft Word and PDF formats
- Step-by-step MasteringNutrition tutorials
- Video introduction to Learning Catalytics™
- Great Ideas in Teaching Nutrition

For Students
- Eat Right! Healthy Eating in College and Beyond
- Food Composition Table

User’s Quick Guide for Nutrition & You
This easy-to-use printed supplement accompanies the Teaching Toolkit and offers easy instructions for both experienced and new faculty members to get started with the rich Toolkit content and MasteringNutrition.