Written for majors and advanced non-majors, *Nutrition, Sixth Edition* provides a modern, comprehensive introduction to nutrition concepts, guidelines, and functions. Its student-focused approach provides readers with the knowledge they need to make informed decisions about their overall nutrition.

**Key Highlights**

- **New** Navigate 2 Advantage Access provides an interactive eBook with animations, study tools, robust assessment materials, and—for qualified instructors—an assortment of instructor resources. Navigate 2 is free with every new copy of this text and is also available for separate purchase.
- **New** Getting Personal feature in the end-of-chapter Learning Portfolio encourages students to apply their nutritional knowledge to understanding their own diets.
- **Revised** statistics and data incorporated throughout the text reflect the current state of nutrition in America and the world.
- **Revised** food source charts in the vitamins and minerals chapters more clearly convey optimal sources for vitamins and minerals.
- **Updated** Position Statements from the Academy of Nutrition and Dietetics, the American Heart Association, and other organizations appear throughout the text.
- **Updated** references utilize the latest science in the field.
- **New and updated** FYI, Going Green, and Quick Bite features provide in-depth discussions of controversial issues and interesting factoids.

**Chapter 1—Food Choices**

- **New** section discusses the impact of eating away from home
- **New** FYI feature: “The Affordable Care Act and Nutrition”
- **New** Quick Bite features: “Try It Again, You Just Might Like It,” “Does being overweight spread from person to person?” and “High-fructose corn syrup”
- **Updated** section on the impact of healthy food experiences early in life on forming healthy eating habits throughout the life cycle
• Updated discussion of the effect TV advertisements have on childhood nutrition

Chapter 2—Nutrition Guidelines and Assessment

• New discussion of FDA regulations regarding the labeling of gluten-free foods
• New Going Green feature: “Is the American Diet Contributing to a Warmer Planet?”
• New Quick Bite feature: “Variety is Key”
• Revised FYI feature: “Portion Distortion”

Spotlight on Dietary Supplements and Functional Foods

• New table highlights groups for whom nutritional supplementation may be recommended
• Revised FYI feature: “Defining Complementary and Integrative Health”
• Updated Position Statement from the Academy of Nutrition and Dietetics: “Functional Foods”

Chapter 3—Digestion and Absorption

• New FYI feature: “Celiac Disease and Gluten Sensitivity”
• New Quick Bite feature: “Living Without a Gallbladder”
• Updated discussion regarding the link between red meat consumption and colorectal cancer
• Updated Nutrition Science in Action feature: “Screen Time and Diet Quality”
• Updated FYI feature: “Bugs in Your Gut? Health Effects of Intestinal Bacteria”
• Streamlined description of emulsification and its role in fat digestion
• In-depth discussion of the effect of medications on food absorption

Chapter 4—Carbohydrates

• New table summarizing the effects of fiber on digestion and absorption, and the health benefits of these effects
• New comparison of soluble and insoluble fibers
• New discussion of agave sweeteners
• Streamlined discussion of artificial sweeteners, with new table summarizing nonnutritive sweeteners and sweet substances
• Expanded discussion of resistant starches
• Expanded FYI features: “The Glycemic Index of Foods: Useful or Useless?” and “Unfounded Claims Against Sugars,” with new sections on “Sugar and Type 2 Diabetes” and “High-Fructose Corn Syrup (HFCS), Obesity, and Disease”

Chapter 5—Lipids

• New sections providing recommendations for omega fatty acid intake and summarizing the health effects of omega-3 fatty acids
• New Position Statement from the Academy of Nutrition and Dietetics: “Fatty Acids for Healthy Adults”
- **Streamlined** section on fat replacers
- **Revised** Going Green feature: “Fish: Good For You and the Environment”
- **Revised** FYI feature: “Fats on the Health Store Shelf,” which now delves into coconut oil and grapeseed oil
- **Revised** table incorporating American Heart Association Diet and Lifestyle Recommendations
- **Updated** American Heart Association Position Statement: “Omega-3 Fatty Acids”

**Chapter 6—Proteins and Amino Acids**
- **New** discussion regarding whether eating more protein helps build more muscle
- **New** table providing dietary suggestions for vegetarians
- **New** FYI feature: “High Protein Diets and Supplements”
- **New** Quick Bite feature: “Eating lower on the food chain is good for the planet”
- **New** Position Statement from the Academy of Nutrition and Dietetics: “Vegetarian Diets”
- **Revised** Going Green feature: “Send in the Proteins”
- **Revised** FYI feature: “Do Athletes Need More Protein?” incorporating latest information from the Academy of Nutrition and Dietetics

**Chapter 7—Alcohol**
- **New** discussion of the prehistoric origins of alcohol
- **Revised** description of alcohol metabolism

**Chapter 8—Metabolism**
- **Updated** information on the role of carnitine in cardiovascular efficiency during exercise

**Chapter 9—Energy Balance**
- **New** discussion of digital private counseling programs
- **New** Quick Bite feature “The Raw Foods Diet”
- **New** description of metabolically healthy obesity
- **Revised** section on FDA-approved weight-loss medications
- **Updated** section on portion distortion phenomenon
- **Updated** Going Green feature: “Salad Days”
- **Updated** discussions regarding over-the-counter drugs, dietary supplements, and surgery for weight loss

**Spotlight on Obesity**
- **New** section on the link between gut microbiota and obesity
- **New** Quick Bite features: “Can You Pick Your Partners?” and “Your Microbiota and You”
- **New** statistics concerning obesity rates in Asia and the Middle East
• **Revised** FYI feature: “U.S. Obesity Trends: A Relentless Increase”

**Chapter 10—Fat-Soluble Vitamins**
- **New** table summarizes fat-soluble vitamins, their functions, and the results of deficiency and megadoses
- **New** table compares fat-soluble and water-soluble vitamins
- **New** table lists common carotenoids and their potential benefits

**Chapter 11—Water-Soluble Vitamins**
- **New** table summarizes water-soluble vitamins, their functions, and the results of deficiency and megadoses

**Chapter 12—Water and Major Minerals**
- **New** section discusses minerals in fluid balance
- **Updated** Going Green feature: “The Thirst for Water Resources”
- **Updated** FYI feature: “Tap, Filtered, or Bottled: Which Water is Best?”

**Chapter 13—Trace Minerals**
- **New** discussion of arsenic levels in rice-based products
- **New** reference to sea salts as sources of iodine

**Chapter 14—Sports Nutrition**
- **New** discussion of exercise intensity, muscle-strengthening exercises, and flexibility and neuromotor exercises
- **New** section on ephedrine
- **Updated** coverage of protein and hydration recommendations for athletes
- **Updated** discussion of nutrition supplements and ergogenic aids
- **Updated** section on caffeine
- **Expanded** discussion of the American Medical Association and American College of Sports Medicine’s *Exercise is Medicine* initiative

**Spotlight on Eating Disorders**
- **New** introduction of the acronym OSFED (Other Specified Feeding or Eating Disorder)

**Chapter 15—Diet and Health**
- **New** section on nutrition informatics
- **New** Quick Bite features: “Adaptation Gone Awry, “Smartphones Advance Artificial Pancreas,” and “What Smells in Blood Pressure?”
- **Revised** section delving into whether intakes of saturated and trans fat and cholesterol should be limited

**Chapter 16—Life Cycle: Maternal and Infant Nutrition**
• **New** Position Statement from the Academy of Nutrition and Dietetics: “Nutrition and Lifestyle for a Healthy Pregnancy Outcome”
• **New** table presenting a meal plan for a vegan pregnancy

**Chapter 17—Life Cycle: From Childhood Through Adulthood**

• **New** content discussing the increase in use of e-cigarettes among American high school students
• **Updated** information relating to lead toxicity
• **Revised** Quick Bite feature: “The Dangers of Teenage Smoking”

**Chapter 18—Food Safety and Technology**

• **New** FYI feature: “Are Nutrigenomics in Your Future?”
• **New** table listing food safety mistakes
• **New** information regarding the FDA’s voluntary plan to phase out the use of certain antibiotics for enhanced food production in farm animals
• **Revised** section on genetically engineered foods
• **Revised** table providing USDA’s labeling requirements for organic foods
• **Updated** Going Green feature: “Ocean Pollution and Mercury Poisoning”

**Chapter 19—World View of Nutrition**

• **New** Quick Bite features: “Urban Food Production” and “Tackling Food Insecurity”
• **Expanded** information on iodine deficiency disorders
• **Revised** table provides poverty guidelines based on household size
• **Updated** Position Statement from the Academy of Nutrition and Dietetics: “Addressing World Hunger, Malnutrition, and Food Insecurity”