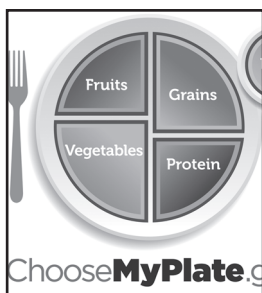


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- 1. Have a Bite, It's Natural**, Chris Sorensen, *Maclean's*, May 2012  
Consumer demand for natural ingredients is leading to significant changes in the operations of some food companies. Also, increased attention to the ethical treatment of animals is changing the foods that are offered in popular restaurants and the nature of how some farmers raise their animals. **3**
- 2. Behind the Brand: McDonald's**, Peter Salisbury, *Ecologist.com*, June 2011  
McDonald's is taking strides to improve its image by offering healthier options in the United States and has changed its operations to more ethical and ecofriendly practices in Great Britain and Northern Ireland. McDonald's UK has made great strides to ensure no GM foods are sold at its restaurants. **6**
- 3. Go On: Eat Your Heart Out**, Bruce Horovitz, *USA Today*, June 2012  
With increased access to information, viral videos, and documentaries of food production in the United States, consumers are experiencing a new emotion related to food: fear. Products that are grown naturally, ethically, and safely are at increasing demand. U.S. consumers' emotional attachment to food is leading the food industry to change the way it produces and markets food. **8**
- 4. Fresh Fruit, Hold the Insulin**, Scientific American's Board of Editors, *Scientific American*, May 2012  
The Food, Conservation, and Energy Act of 2008 (i.e., "Farm Bill") is up for renewal. This ignites conversation about the impact of the federal government's degree of financial backing for industrial growers of commodity crops in relation to the lesser support of fruit and vegetable production. This editorial report discusses the outcome of the Farm Bill on the U.S. food supply and, secondarily, its food intake. **10**
- 5. The New Healthy**, Amy Winterfeld, *State Legislatures*, January 2012  
Lawmakers of state governments are creating initiatives that support the USDA's latest nutrition education campaign, My Plate. Legislative support for improving access to locally grown fruits and vegetables, seafood, and dairy is becoming more prevalent at the state level. These efforts serve to improve not only the health of the states' people, but also their economies. **12**
- 6. Calorie Posting in Chain Restaurants**, Sarah H. Wright, *The NBER Digest*, May 2010  
In March 2010 federal health legislation mandated chain restaurants to post calorie content of their menu items. Preliminary studies show that calorie posting positively influences food choices by consumers. If consumers demand lower-calorie items secondary to the calorie posting, then restaurants will have incentive to expand their offerings of lower-calorie items. **14**
- 7. Cause + Effect**, Elisabeth A. Sullivan, *Marketing News*, March 2012  
Sara Bleich and colleagues investigated how consumer behavior is impacted by the way calorie information is presented. Bleich et al. tested three ways of presenting calorie information, a calorie count, percentage of daily intake, and physical activity equivalent. Information presented as physical activity equivalents had the most impact on purchasing behavior among low-income black adolescents in Baltimore, Maryland. **15**

**8. Can Social Media Produce Wellness Results?**, Michelle V. Rafter, Workforce Management, June 2012

A recent trend in corporate wellness programs is the use of social media platforms to support employees adopting healthy lifestyle behaviors. Social media programs can provide a venue for participants to journal, create fitness challenges, and offer support to fellow participants. It provides social support and motivating factors such as accountability and friendly competition.

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## **UNIT 2**

### **Childhood Nutrition**

#### **Unit Overview**

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**9. The State of Family Nutrition and Physical Activity: Are We Making Progress?** American Dietetic Association and American Dietetic Association Foundation, 2011.

The American Dietetic Association, along with its Foundation, published this thorough report of the state of childhood/family nutrition and physical activity.

25

**10. Underage, Overweight**, *Scientific American*, May 2010

Sugar- and fat-laden foods are marketed directly to children through commercials, as well as indirectly through product placement in movies and video games. An interagency working group from four federal programs has proposed voluntary standards for marketing foods and beverages to children under the age of 17. This is an attempt to help create an environment that helps children make more nutritious food choices.

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**11. The Impact of Teachers and Families on Young Children's Eating Behaviors**, Erin K. Eliassen, *Young Children*, March 2011

This article addresses how children's taste perception, food preferences, and eating behaviors are shaped by the role models that surround them. Practical advice is given on how to encourage positive eating behaviors in children.

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**12. Engaging Families in the Fight against the Overweight Epidemic among Children**, Mick Coleman, Charlotte Wallinga, and Diane Bales, *Childhood Education*, Spring 2010

This article addresses the overweight epidemic in U.S. children, including the prevalence, consequences, contributing factors, as well as recommendations of how families can be involved in changing the prevalence.

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**13. Do Organics Promote Children's Health?**, Carol Ann Brannon, *Today's Dietitian*, December 2011

Pregnant women and young children are at higher risk for the adverse effects of chemicals used in conventional agricultural practices. Research is supportive of a possible connection between chemicals in foods and attention, cognition, behavior, and sensory issues in children.

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**14. Ultimate Food Fight Erupts as Feds Recook School Lunch Rules**, Nirvi Shah, Edweek.org, April 2011

The recent passage of the Healthy, Hunger-Free Kids Act has prompted the USDA to modify the standards for the National School Lunch and Breakfast programs. The new standards for breakfast and lunches served in school cafeterias are addressed in this article.

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**15. Junk Food-Free Vending Machines Go to School**, Nick Leiber, *Bloomberg Businessweek*, January 2011

When policies were tightened to address the junk food available to kids in vending machines, thousands of vending companies fled the school vending market, leaving room for new concepts in healthy vending options. Small companies, many of them start-ups, are going into the vending business to provide healthy food and beverage items sold in vending machines at U.S. schools.

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**16. The School Lunch Wars**, Kristen Hinman, *The Wilson Quarterly*, Spring 2011

The quality of meals offered in U.S. schools has become highly scrutinized in the past few years. This article describes the history of the School Lunch Program and offers personal stories of food service professionals attempting to make a difference.

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## UNIT 3 Nutrients

### Unit Overview

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- 17. Getting Enough?: What You Don't Eat Can Hurt You**, Bonnie Liebman, *Nutrition Action Healthletter*, September 2010

Too often the resounding message about nutrition and our diets is that we eat too much of the “bad stuff.” An important message that is underpublished is that our diets commonly lack certain vitamins and minerals that are beneficial. This article provides practical information about consuming adequate potassium, vitamin D, magnesium, and vitamin B12.

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- 18. Vitamins, Supplements: New Evidence Shows They Can't Compete with Mother Nature**, *Consumer Reports on Health*, February 2010

There is very little (well-researched) evidence that supports the use of vitamin and mineral supplements in health promotion and prevention. Most studies show no benefit or actual harm to humans. Most major health organizations and associations support consuming nutrients from nutrient-dense foods rather than supplements. This brief review discusses the latest on supplement vs. food as the best source for nutrients.

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- 19. Which Pills Work?**, Melinda Wenner Moyer, *Scientific American.com*, February 2011

The Institute of Medicine concluded that vitamin D supplements are unnecessary for most Americans and potentially harmful. Epidemiological studies support vitamin D supplementation; however, clinical trials have not found the same results.

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- 20. Keeping a Lid on Salt: Not So Easy**, Nanci Hellmich, *USA Today*, April 28, 2010

The recommendation to reduce dietary sodium is not new; however, the U.S. Dietary Guidelines is now recommending that all Americans can benefit from consuming less sodium. The complicating factor: Sodium is in so many of foods commonly eaten in the United States. Hellmich reviews the topic and explains why the suggestion is controversial.

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- 21. Friend or Foe?**, Graham Lawton, *New Scientist*, December 2011

Sodium restriction is one of the most prominent public health messages in the US. The USDA's most recent dietary guidelines have further reduced the recommendation of sodium intake. A proposed next step is to address the amount of sodium in the processed foods, which is the main source of sodium in the US diet.

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- 22. Nutrition for Optimum Athletic Performance—The Right Fuel Can Be the Difference**, Ellen Coleman, *Today's Dietitian*, March 2011

More Americans are increasing their activity level to meet or exceed the exercise recommendations published in the Dietary Guidelines. As a result, more people are exercising at the level of “athlete” rather than occasional exerciser. This article addresses how to properly fuel and hydrate for optimal athletic conditioning.

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- 23. Iron Nutrition and the Female Athlete: Countermeasures for the Prevention of Poor Iron Status**, Laura J. Bass and James P. McClung, *Journal of Evidenced-Based Complementary and Alternative Medicine*, April 2011

Iron deficiency is the most prevalent micronutrient deficiency in the world. Female athletes are at higher risk for iron deficiency. The proposed contributing factors could be inadequate intake of iron rich foods and the physiologic losses of iron during physical activity.

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## UNIT 4 Diet and Disease

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- 24. We Will Be What We Eat**, Meryl Davids Landau, *US News & World Report*, February 2010

If the U.S. population continues to eat the “typical American diet,” our country will see higher risk for and prevalence of osteoporosis, heart disease, hypertension, insulin

resistance, dementia, arthritis, and certain cancers. This article addresses how foods and diet play a role in these diseases.	109
<b>25. Sugar Overload: Curbing America's Sweet Tooth</b> , <i>Nutrition Action Health Letter</i> , January/February 2010 This cover story in the <i>Nutrition Action Healthletter</i> is a comprehensive view of the role of added sugar in obesity, diabetes, visceral fat, gout, overeating, and blood pressure. The article also contains lists of quantities of added sugar in commonly consumed foods and beverages.	112
<b>26. Role of Sugar Intake in Beverages on Overweight and Health</b> , Max Lafontan, <i>Nutrition Today</i> , November/December 2010 Evidence from epidemiological studies has suggested an association between drinking sugar-sweetened beverages and being overweight. This article reviews the health impact of drinking sugar-laden beverages and the mechanism of action.	119
<b>27. Sugar Belly: How Much Is Too Much Sugar?</b> , Bonnie Liebman, <i>Nutrition Action Health Letter</i> , April 2012 Research supports the link between consumption of sugar-sweetened beverages and risk of type two diabetes, heart disease, hypertension, hypertriglyceridemia, gout, and weight gain. Added fructose has been tied to increased levels of triglycerides in the blood, decreased fat oxidation, increased LDL cholesterol, increased uric acid in the blood, and an increase in visceral fat.	123
<b>28. A Diabetes Cliffhanger</b> , Maryn McKenna, <i>Scientific American</i> , February 2012 The incidence of type one diabetes has been increasing at rates of 3 to 5 percent per year. This article reviews competing hypothesis that attempt to explain the rise in type one diabetes; the hygiene hypothesis and overload hypothesis.	130
<b>29. Nutrition and Immunity: Balancing Diet and Immune Function</b> , Susan S. Percival, <i>Nutrition Today</i> , January/February 2011 Proper nutrition and balanced nutrient intake is required for our immune system to function optimally. This article describes the complex immune response and how nutrient deficiencies impair our immune system.	133
<b>30. How to Save Your Brain</b> , Nikhil Swaminathan, <i>Psychology Today</i> , January/February 2012 Scientific evidence supports the link between healthy lifestyle behaviors and delaying or preventing the onset of dementia and Alzheimer's disease. Antioxidants, consistent intake of a variety of nutrients, and omega-3 fatty acids all play an important part in preserving brain health.	139
<b>31. Soothe the Fire in Your Belly</b> , <i>Consumer Reports on Health</i> , July 2012 More than 50 million people in the United States experience heartburn at least once per month. What a person eats can contribute to the unpleasant symptoms of this condition. Often people get temporary relief from over-the-counter medications. However, if the condition persists, it may mean that a more serious chronic condition is occurring.	142
<b>32. When the Liver Gets Fatty</b> , <i>Harvard Health Letter</i> , January 2011 Obesity and diabetes can cause excessive fat deposits in the liver. Nonalcoholic fatty liver disease affects an estimated 70 to 90 percent of obese people with type two diabetes. This article describes nonalcoholic liver disease, its diagnosis, and possible treatments.	145



## UNIT 5

### Obesity and Weight Control

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<b>33. How to Fix the Obesity Crisis</b> , David H. Freedman, <i>Scientific American</i> , February 2011 The cause of our obesity crisis is multifactorial, as are the solutions to the problem. This article describes possible solutions to decrease the prevalence of obesity, including behavior-focused interventions and changes in public policy.	151

- 34. The Fat Plateau**, *The Economist*, January 23, 2010  
A study published in *Journal of the American Medical Association* found that obesity rates from 1998 to 2008 increased at a higher rate than 2008–2010. The common assumption is that obesity rates will continue to escalate at a constant rate; however, current research suggests that obesity rates are slowing. Although this data is promising, it is a decline in obesity rates that is desperately needed. **156**
- 35. Obesity Rates in U.S. Appear to Be Finally Leveling Off**, Shari Roan, *Los Angeles Times*, January 17, 2012  
Data from the National Health and Nutrition Examination Survey (NHANES) indicates that the prevalence of obesity in the United States remains unchanged compared to the 2005–2006 data. More than 78 million Americans are obese (BMI >30) and an additional one-third of the population is overweight. **158**
- 36. The Hungry Brain**, Dan Hurley, *Discover*, June 2011  
The reward mechanism and pleasure sensation of consuming energy-dense food is wired in our brain as a primal method of survival and a way to make us feel good. This article describes the physiology of how the brain impacts our food choices. **160**
- 37. In Your Face: How the Food Industry Drives Us to Eat**, Bonnie Liebman and Kelly Brownell, *Nutrition Action Healthletter*, May 2010  
Kelly Brownell, professor of Psychology at Yale University and co-founder of the Rudd Center for Food Policy and Obesity, gives a lively interview with Bonnie Liebman of *Nutrition Action Healthletter*. Brownell addresses the issues of the U.S. toxic food environment, addictive foods, who shares responsibility, and recommendations for change. **165**
- 38. The Subtle Knife**, Samantha Murphy, *NewScientist*, May 2012  
Weight loss after bariatric surgery has been contributed to the smaller size of the stomach and/or malabsorption. This article discusses additional factors that lead to weight loss such as altered taste perceptions, diminished hunger cues, and altered relationship with food. **169**
- 39. Eating Disorders in an Obesogenic Environment**, Joyce A. Corsica and Megan M. Hood, *Journal of the American Dietetic Association*, July 2011  
Although most national attention on nutrition and optimal health revolves around the obesity epidemic, a sector of the U.S. population suffers with voluntary food restriction and inadequate nutrient intake. This article addresses how people with eating disorders are impacted by our obesogenic environment. **172**
- 40. How to Count a Calorie**, Jeffrey M. O'Brien, *Wired*, January 2012  
Weight Watchers has recently revamped its points system to incorporate principles of glycemic index, thermic effect of food, and energy density. The previous system was primarily based on the premise that all calories are metabolically equal. The new system, referred to as PointsPlus, assigns fewer points to lean protein and higher points to juices, alcohol, and processed foods. **177**



## UNIT 6

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- 41. The Scoop on Chocolate: Is Chocolate Really Healthy?**, Hara Estroff Marano, *Psychology Today*, March/April 2011  
Can it be true? Something that tastes so good can also be beneficial to our health? This article summarizes the research that supports chocolate as a heart-healthy brain food. The history of chocolate as a health food is also described. **184**
- 42. The Benefits of Flax**, *Consumer Reports on Health*, April 2009  
Flax seeds are a natural source of fiber, protein, magnesium, and thiamin, but are marketed mostly for their omega-3 fatty acids. This article will address the benefits and possible negative consequences of consuming flaxseed oil supplements and answer the question “Which is better, fish oil or flaxseed oil supplements?” **186**

- 43. Brain Boosters: Some Nutritional Supplements Provide Real Food for Thought**, Janet Raloff, *Science News*, February 26, 2011  
Caffeine, caffeine derivatives, glucose, ginkgo biloba, Chinese ginseng, and cocoa flavanols are on the “mental menu” as improving brain function. Many products are available that boast of improved energy and mental clarity to combat fatigue. **187**



## UNIT 7

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- 44. The Future of Food: Five Frontiers**, Elizabeth Weingarten, *Slate*, June 2012  
Advances in food technology are leading to radically different methods of producing and preserving food. Principles of genetic engineering, vertical farms, lab-grown meats, bacteriophages, and nanotechnology provide ways to increase production with less burden, enhance food safety, and keep foods fresh longer. These principles are shaping the future of food. **195**
- 45. Genetic Engineering for Good**, Erik Vance, *utne.com*; January/February 2011  
Genetically modifying our food crops is a controversial topic, however, there are benefits to altering crops to increase the world’s food supply to meet the demand of its growing population. **198**
- 46. Engineering the Future of Food**, Josh Schonwald, *The Futurist*, May/June 2012  
Genetically altered food has elicited fear and pockets of global opposition. Often the positive aspects of GM foods do not make it to mainstream media. This article explores the possibilities of GM foods. With the technical advances of genetically modified foods, food can be made to look and taste different, grown more easily, stay fresh longer, and possibly improve health. **200**
- 47. Food Fight**, Brendan Borrell, *Scientific American*, April 2011  
This article describes the work and career of Roger Beachy, a renowned expert on genetically modified crops who now heads the National Institute of Food and Agriculture at the USDA. **204**
- 48. Food That Lasts Forever**, Deborah Blum, *Time*, March 2012  
Would you eat a barbecued chicken sandwich that was prepared four years ago or a pork chop that is six years old? Advancing technology in food preservation, most notably high-pressure processing, is stretching the concept longer shelf life. The use of water-absorbing ingredients and edible polymers are also being used to create convenience foods that will not be soggy in the years that the food is on the shelf. **207**
- 49. Inside the Meat Lab**, Jeffrey Bartholet, *Scientific American*, June 2011  
How would the world’s food supply and agriculture change if we could harvest meat in a petri dish? Several labs are working to perfect techniques to grow beef, chicken, and lamb tissue in a chemistry lab. **209**
- 50. H<sub>2</sub> Uh–Oh: Do You Need to Filter Your Water?**, *Nutrition Action Healthletter*, June 2010  
An estimated 19.5 million illnesses occur each year in the United States due to microorganisms in our water. How do viruses, bacteria, and protozoa get into our drinking water? What are the potential consequences of chemical compounds and contaminants in our water supply? What can we do to protect ourselves? Answers to all of these questions are addressed in this article. **214**
- 51. Arsenic in Your Juice**, *Consumer Reports*, January 2012  
Recent reports of high levels of arsenic and lead in juice have consumers concerned about the safety of drinking juice, especially by children. Although there is a federally enforced limit on the amount of arsenic and lead in drinking water, no limits exist for juices. Chronic low-level consumption of arsenic has been linked to slower cognitive development, various cancers, high blood pressure, diabetes, and infertility. **220**



# UNIT 8

## Hunger, Nutrition, and Sustainability

### Unit Overview

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- 52. The Food Crisis and the Deregulation of Agriculture**, Bill Winders, *The Brown Journal of World Affairs*, Fall/Winter 2011  
 The international food supply is a complex global process that is impacted by unpredictable weather, government regulation, tariffs on trade, economics, and technology. Although we may scoff at paying \$6 for a gallon of milk or \$4 for a quart of orange juice, the populations that feel the most effect of rising food costs are the poorer areas of developing countries. **229**
- 53. Behind the Label: How Fair Are Organic and Fairtrade Bananas?**, Tom Levitt, *Ecologist*, May 2012  
 This article describes the lives of two men who are trying to survive by working in the organic and Fairtrade banana industry in the Dominican Republic. One perspective is from a banana farm owner and the other is from an illegal immigrant laborer. The story portrays realities of the organic and Fairtrade banana industry that are often neglected. **235**
- 54. Rising Prices on the Menu: Higher Food Prices May Be Here to Stay**, Thomas Helbling and Shaun Roache, *Finance and Government*, March 2011  
 The price of food is impacted by many different factors. Policies and laws affecting agriculture, government subsidies, imports/exports, and global food supply are factors that impact the price and supply of food. **239**
- 55. Tackling Undernutrition the Right Way**, Gary R. Gleason, *Nutrition Today*, September/October 2010  
 Undernutrition and inadequate access to food affects more than 360 million children and are implicated in 3.5 million deaths of children in underdeveloped countries. Researchers and professionals who work in international policy are pushing for a change in this worldwide discrepancy of food availability. **242**
- 56. Food Stamps for Good Food**, Melanie Mason, *The Nation*, March 2011  
 This article depicts the realities of feeding a family on food acquired with the help of the Supplemental Nutrition Assistance Program. It describes the history and prevalence of the use of SNAP, the program formally known as food stamps. **246**
- 57. Address Health Disparities in American Indians**, Elaine Kovacs and Melissa Ip, *Today's Dietitians*, June 2011  
 Obesity, diabetes, and food insecurity are prevalent in Native American communities. This article addresses these disparities and provides guidance and possible solutions. **249**
- 58. Fixing the Global Nitrogen Problem**, Alan R. Townsend and Robert W. Howarth, *Scientific American*, February 2010  
 Current conventional agricultural techniques depend on nitrogen-based fertilizers for crop production; however, as the use of these chemical fertilizers spreads to other countries, it is posing threats to our health and the health of our ecosystems. This article describes the history of nitrogen-based fertilizers and the damage that results from too much nitrogen in our atmosphere and provides suggestions of how we can curtail the damage. **252**
- 59. Perennial Grains: Food Security for the Future**, Jerry D. Glover and John P. Reganold, *Issues in Science and Technology*, Winter 2010  
 Agricultural grain crops are annuals, meaning the plants must be planted each year from seed and the plants cleared from the fields at the end of the growing season. Plant geneticists are now able to develop perennial grain plants that could have significant ecological, environmental, and health benefits. **257**

### Test-Your-Knowledge

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