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UNIT 1 Nutrition Trends

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- 1. Can Low-Income Americans Afford a Healthy Diet?**, Adam Drewnowski and Petra Eichelsdoerfer, *Nutrition Today*, November/December 2009
One of the charges of the **2010 Dietary Guidelines** is to address difficulties that **low-income Americans** have in obtaining and preparing nutrient dense foods. This article reviews the current state of adequate nutrition for low-income populations with guidance as to how to address nutrition status among income disparities. **3**
- 2. Healthy Food Looks Serious: How Children Interpret Packaged Food Products**, Charlene D. Elliott. *Canadian Journal of Communication*, Volume 34, 2009
The latest trends in marketing foods to kids follow the concept of “fun food,” which emphasizes play, interactivity, artificiality, and distinctly different concepts from traditional “grown up” foods. Food is being positioned as fun and eating as entertainment by marketing among the food industry. This article demonstrates how these marketing ploys are interpreted by a group of kids in first to sixth grades. **7**
- 3. 10 Urban Food Legends: Things Aren’t Always as Simple as They Seem**, Bonnie Liebman, *Nutrition Action Healthletter*, June 2010
Urban legends can range from mostly true to completely false. This does not differ when considering urban legends regarding food and nutrition. This article presents ten commonly known food legends and helps to correct or put each into context. **18**
- 4. Eat Like a Greek**, *Consumer Reports on Health*, August 2009
The Mediterranean diet has been positively linked to lowering the risk of **heart disease, cancer, type 2 diabetes**, and **dementia**. This diet isn’t about foods you should not eat, it’s more of a style of eating that can easily be adopted with a little planning. This easy-to-read article leads the reader through practical steps of how to incorporate principles of the **Mediterranean lifestyle** into daily life. **21**
- 5. Definition of the Mediterranean Diet Based on Bioactive Compounds**, Fulgencio Saura-Calixto and Isabel Goñi. *Critical Reviews in Food Science and Nutrition*, Volume 49, 2009
The Mediterranean diet has been characterized as rich in olive oil, fruits, vegetables, nuts, beans, and fish. The authors of this study investigated the phytochemical content of the usual Mediterranean diet. From their analysis, they are able to suggest a more specific definition of the diet that quantifies an average MUFA/SFA ratio, dietary fiber, antioxidant, and phytosterol intake within the typical Mediterranean diet. **23**
- 6. Have a Coke and a Tax: The Economic Case against Soda Taxes**, Veronique de Rugy, *Reason*, January 2010
Versions of the recent **healthcare reform bills** have included a tax on soda to help finance the proposed changes. There is a great deal of support for the **soda tax** by state and local governments as well as many health professionals, however, de Rugy presents a case against the effectiveness of “sin taxes.” **33**

The concepts in bold italics are developed in the article. For further expansion, please refer to the Topic Guide.

7. **Pepsi Brings in the Health Police**, Nanette Byrnes, Bloomberg *Businessweek*, January 25, 2010
PepsiCo, one of the world's largest food and beverage conglomerates, is attempting to improve the nutrition profile of its traditionally **high fat and added sugar "junk food"** and beverages. The food giant has made impressive strides in changing its business model to prepare for changes in demand for **healthier snacks** and beverages. 35
8. **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. 37
9. **A Burger and Fries (Hold the Trans Fats)**, Lindsey Getz, *Today's Dietitian*, February 2009
Are you one of the average Americans who consumes 4.7 pounds of **trans fats** per year? If you live in certain cities/states in the United States and avoid eating foods rich in these fats, you may not be. This article will help you to determine if your hometown has banned the use of trans fats by restaurants and how to avoid foods high in trans fats at home. 38
10. **The Potential of Farm-to-College Programs**, Kathleen A. Merrigan and Melissa Bailey, *Nutrition Today*, August 2008
Farm-to-college programs (FTC), in which colleges and universities purchase food directly from farms instead of large distributors, are becoming popular today with the increasing demand for locally grown food. More than 100 colleges and universities in the United States have begun or plan to implement an FTC program. This article uses Tufts University as a model to demonstrate the barriers to FTC's implementation and why it is especially difficult for schools in the Northeast region of the United States to have successful FTC programs. 41



UNIT 2 Nutrients

- Unit Overview 46
11. **Color Me Healthy: Eating for a Rainbow of Benefits**, Julian Schaeffer, *Today's Dietitian*, November 2008
What color is your diet? The mainstays of the Western diet are predominately beige (breads, crackers, snacks, potatoes, chicken, fries, baked goods, cookies, etc.). People who consume mostly beige foods are missing out on a **variety of nutrients and phytochemicals**. This article explains why it is important to eat a rainbow of natural colors. 48
12. **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. 51
13. **Fiber Free-for-All**, *Nutrition Action Healthletter*, July/August 2008
Most Americans are only consuming half of the **recommended levels of fiber** even though there is evidence that fiber is linked to a reduced risk of diabetes, colorectal cancer, and obesity. Now food companies have discovered how to put fiber into many foods that do not normally contain it. The only problem is that isolated fiber may not have the same benefits of intact, **naturally occurring fiber**. This article informs consumers on what they need to know about fiber and where they can find fiber in food in order to reap its benefits. 53

14. **Seafood Showdown: Fatty Acids vs. Heavy Metals**, Julie Hanus, UTNE, June 1, 2010
This brief article discusses some of the potential benefits of **omega-3 fatty acids** and how to consume these **beneficial fats** with decreased risk of consuming heavy metals and toxins. 57
15. **The Fairest Fats of Them All (and Those to Avoid)**, Sharon Palmer, *Today's Dietitian*, October 2008
Sharon Palmer walks the reader through the different types of fats, the good and the bad, including **MUFAs**, **PUFAs**, **omega-3s**, **saturated**, **trans**, and **cholesterol**. Also included is a list of different oils, their fatty acid make up, and a description of each. 58
16. **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. 62
17. **Antioxidants: Fruitful Research and Recommendations**, Pamela S. Brummit, *Today's Dietitian*, September 2008
Historically, the health benefits of foods have been explained by vitamins, minerals, fiber, protein, and healthy fats. Research on other bioactive food components, such as **phytochemicals**, provides yet another aspect to the benefit of eating a variety of plant-based foods. This article reviews the functions of the antioxidants **beta carotene**, **vitamin C**, **vitamin E**, and **selenium**. 63



UNIT 3 Diet and Disease

Unit Overview

18. **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. 66
19. **Sugar Overload: Curbing America's Sweet Tooth**, *Nutrition Action Healthletter*, January/February 2010
This cover story in the Nutrition Action Healthletter 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. 69
20. **Fructose Sweeteners May Hike Blood Pressure**, Janet Raloff, *Science News*, July 2, 2010
Fructose sweeteners, a major source of **added sugar** in the U.S. diet, may have a role in the increasing rates of **hypertension** in the United States. A group of nephrologists (kidney specialists) conducted a study in humans to investigate if high-fructose sweeteners affect the likelihood of developing hypertension. 72
21. **Food for Thought: Exploring the Potential of Mindful Eating**, Sharon Palmer, *Environmental Nutrition*, June 1, 2009
Have you ever looked down at an empty plate, bag of chips, or cookies and asked, "Where did it go?" The busy lifestyle of Americans has changed our perception of food. We have desensitized ourselves of the normal homeostatic regulation of hunger cues. **Mindful eating** is a new concept that has proven beneficial in **eating disorders** treatment, **cardiac disease** risk, and **overweight/obesity**. 79

The concepts in bold italics are developed in the article. For further expansion, please refer to the Topic Guide.

22. **The Best Diabetes Diet for Optimal Outcomes**, Rita E. Carey, *Today's Dietitian*, August 2009
The American Diabetes Association recommends an individualized approach to meal planning for people with diabetes. This article addresses **several approaches to diets for people with diabetes**. Ms. Carey reviews three styles of diets, high fiber/vegetarian, **Mediterranean**, and low carbohydrate.

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UNIT 4

Obesity and Weight Control

Unit Overview

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23. **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.

88

24. **Engaging Families in the Fight against the Overweight Epidemic among Children**, Mike 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.

90

25. **Birth Weight Strongly Linked to Obesity**, Nanci Hellmich, *USA Today*, August 2010

Research conducted at Children's Hospital in Boston and Columbia University suggests a link between excessive **weight gain during pregnancy** and risk of **obesity in the child later in life**. Women who gain an average of 50 lbs during pregnancy are more likely to have higher birth weight babies, which may increase the child's risk of becoming obese later in life.

97

26. **The Fat Plateau**, *The Economist*, January 23, 2010

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. 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.

98

27. **In Your Face: How the Food Industry Drives Us to Eat**, Bonnie Liebman and Kelly Brownell, *Nutrition Action Healthletter*, May 2010

Kelly Bownell, 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.

100

28. **Why We Overeat**, David Kessler and Bonnie Liebman, *Nutrition Action HealthLetter*, July/August 2009

Do you eat when you are not hungry? This article will help you understand why. David Kessler, the Commissioner of the FDA in the 1990s, has devoted his life to improving the health of Americans. This article, a manuscript of an interview, addresses his understanding of **why people overeat**.

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UNIT 5 Health Claims

Unit Overview

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29. **Influencing Food Choices: Nutrition Labeling, Health Claims, and Front-of-the-Package Labeling**, Kathleen L. Cappellano, *Nutrition Today*, November/December 2009

Although **nutrition labels** and **health claims** on packaged foods have been used in the United States for over 20 years, information on these foods is still considered confusing by many Americans. A number of professional organizations and trade associations have developed systems to help consumers interpret the information on food labels and health claims. This article highlights several Internet resources that address nutrition labeling, and health claims.

110

30. **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 **flax seed oil supplements** and answer the question “Which is better, fish oil or flax seed oil supplements?”

115

31. **Brain Food**, Linda Milo Ohr, *Food Technology*, September 2008

There has been a recent interest in brain health owing to the growing incidence of Alzheimer’s and cognitive decline in old age. Because of this, there are several new products related to cognitive function in the market. This article provides information on foods, food components, and other products that are thought to **improve mental health**.

116

32. **“Fountain of Youth” Fact and Fantasy**, *Tufts University Health & Nutrition Letter*, May 2008

Antioxidant supplements are extremely available in today’s world. Most all Americans have a diet available to them that provides sufficient levels of the nutrients they need, but many choose to take supplements instead. This article describes what you really need to know about obtaining your antioxidants from diet alone versus getting them from supplements.

119

33. **Miscommunicating Science**, Sylvia Rowe and Nick Alexander, *Nutrition Today*, May/June 2008

With the amount of technology we have in the 21st century, the speed of **communicating scientific results** is greater than ever before and the possibility of miscommunication is equally as great. This article explains and makes us aware that even if the scientific protocol, study design, data collection, and analysis are impeccable, it is still possible to report the findings in a confusing and biased manner.

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UNIT 6 Food Safety/Technology

Unit Overview

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34. **H₂ 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 **micro-organisms** 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.

130

35. **Produce Safety: Back to Basics for Producers and Consumers**, *Food Insight*, March/April 2007
Have you ever wondered what you can do to **protect yourself against food-borne illness**? This article informs consumers of steps they can take to reduce their chances and also summarizes what food producers and regulators are doing to protect their customers from harm. 136
36. **Irradiation of Fresh Fruits and Vegetables**, Xuetong Fan, Brendan A. Niemira, and Anuradha Prakash, *Food Technology*, March 2008
Meat products go through thermal treatment to kill bacteria and pathogens before consumption, but fresh fruits and vegetables are not treated and often consumed raw. **Irradiation** could offer a solution to this problem, inactivating the pathogens on fresh produce. This article describes different types of radiation and its positive and negative effects on different characteristics of produce. 138
37. **Is Your Food Contaminated?**, Mark Fischetti, *Scientific American*, September 2007
New technologies are being developed in order to protect our food supply from **bacterial contamination** or even intentional contamination. Radio-frequency identification tags are one of the new technologies described in this article. However, widespread adoption of this new equipment will not happen until government regulations are enacted. 144



UNIT 7 Hunger, Nutrition, and Sustainability

Unit Overview 148

38. **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 spread 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. 150
39. **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**. 155
40. **Draining Our Future: The Growing Shortage of Freshwater**, Lester R. Brown, *The Futurist*, May/June 2008
Water tables all over the world are depleting at an alarming rate. What many people don't realize, though, is that with a shortage of water also comes a shortage of food; water is necessary to raise livestock and grow crops. This article raises awareness, reveals how serious the world's water crisis is, and puts forth ideas on how we can resolve the problem. 160
41. **In Search of Sustainability**, Karen Nachay, *Food Technology*, July 2008
In response to consumer demands, food companies are finding ways to improve the **sustainability** of their processing and packaging operations and be more environmentally conscious. From green plants that save energy to reducing or modifying packaging material, this article will tell you how these companies are trying to deal with the problems facing our environment. 166

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