

Policy on Dietary Recommendations for Infants, Children, and Adolescents

Originating Committee

Clinical Affairs Committee

Review Council

Council on Clinical Affairs

Adopted

1993

Revised

1999, 2002, 2005, 2006, 2008

Purpose

The American Academy of Pediatric Dentistry (AAPD) recognizes its role in promoting well-balanced, low caries-risk, and nutrient-dense diets for infants, children, adolescents, and persons with special health care needs.

Methods

The revision of this policy is based on a review of current dental and medical literature related to diet and nutrition for infants, children, and adolescents. A MEDLINE search was performed using the terms “body mass index”, “breast-feeding”, “caries”, “diabetes”, “hypertension”, “physical activity”, “nutrition”, and “obesity”. Expert opinions and best current practices also were relied upon for this policy.

Background

Establishment of a dental home by 12 months of age allows the institution of appropriate caries-preventive strategies, including dietary recommendations and appropriate oral hygiene instruction, as the primary teeth begin to erupt.¹ Dietary choices affect oral health as well as general health and well-being.

Epidemiological research shows that human milk and breast-feeding of infants provide general health, nutritional, developmental, psychological, social, economic, and environmental advantages while significantly decreasing risk for a large number of acute and chronic diseases.² Human breast milk is uniquely superior in providing the best possible nutrition to infants and, by itself, has been shown to be noncariogenic.³ While early childhood caries (ECC) may not arise from breast-feeding alone, an *in vitro* study has shown that breast-feeding in combination with other carbohydrates is highly cariogenic.³ Frequent bottle-feeding at night, ad libitum breast-feeding, and extended and repetitive use of a no-spill training cup are associated with, but not consistently implicated in, ECC. ECC can be a particularly virulent form of caries, beginning soon after tooth eruption, developing on smooth surfaces, progressing

rapidly, and having a lasting detrimental impact on the dentition.⁴ Consequences of this disease may lead to more widespread health issues.⁵

Caries and its sequelae are among the most prevalent health problems facing American infants, children, and adolescents. Frequent ingestion of sugars and other carbohydrates (eg, fruit juices, acidic beverages) and prolonged contact of these substances with teeth are particular risk factors in the development of caries. Along with increasing caries risk, increased consumption of sugar-sweetened beverages and snack foods also has been linked to obesity.⁶ Childhood overweight and obesity have reached epidemic proportions worldwide, and the prevalence among US youth has quadrupled in children ages 6 to 11 and nearly doubled in adolescents ages 12 to 19 in the past 25 years.⁷ Health risks associated with childhood overweight and obesity are strong indicators for predisposition to adult morbidity and mortality and include type 2 diabetes, cardiovascular disease (hypertension, hypercholesterolemia, and dyslipidemia), and psychological stress (depression and low self-esteem), as well as respiratory (obstructive sleep apnea and asthma), orthopedic (fractures), and hepatic (steatohepatitis) problems.⁸

To help the public make choices for a healthy diet, the US Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS) published Dietary Guidelines for Americans.⁹ These guidelines include:

1. eating a variety of foods;
2. balancing foods eaten with physical activity to maintain a healthy body mass index;
3. maintaining a caloric intake adequate to support normal growth and development and to reach or maintain a healthy weight;
4. choosing a diet with plenty of vegetables, fruits, and whole grains and low in fat, saturated (especially trans-saturated) fat, and cholesterol;
5. using sugars and salt (sodium) in moderation.⁹

Food companies can encourage food and beverage selections that contribute to healthier lifestyles by increasing the prominence, simplicity, and uniformity of nutritional information on food packaging labels.

Policy statement

The AAPD, in its efforts to promote optimal health for infants, children, and adolescents, supports the position of the American Dietetic Association (AmDA) that all children should have access to food and nutrition programs that ensure the availability of a safe and adequate food supply that promotes optimal physical, cognitive, and social growth and development.¹⁰ The AAPD recommends:

1. breast-feeding of infants to ensure the best possible health and developmental and psychosocial outcomes, with cessation of ad libitum breast-feeding as the first primary tooth begins to erupt and other dietary carbohydrates are introduced;
2. educating the public about the association between frequent consumption of carbohydrates and caries;
3. educating the public about other health risks associated with excess consumption of simple carbohydrates, fat, saturated fat, and sodium.

Furthermore, the AAPD encourages:

1. pediatric dentists and other health care providers who treat children to provide dietary and nutrition counseling (commensurate with their training and experience) in conjunction with other preventive services for their patients;
2. food and beverage manufacturers to make nutritional content on food labels more prominent and consumer-friendly and consumers to monitor the presence and relative amounts of carbohydrates and saturated fats as listed on food labels;
3. school health education programs and food services to promote nutrition programs that provide well-balanced and nutrient-dense foods of low caries-risk, in conjunction with encouraging increased levels of physical activity;
4. research, education, and appropriate legislation to promote diverse and balanced diets.

Additional information on nutrition recommendations may be obtained from Web sites for the USDA¹¹, USDA and DHHS⁹, and AmDA¹².

References

1. American Academy of Pediatric Dentistry. Policy on the dental home. *Pediatr Dent* 2007;29(suppl);22-3.
2. American Academy of Pediatrics. Policy statement: Breast-feeding and the use of human milk. *Pediatrics* 2005;115(2):496-506.
3. Erickson PR, Mazhari E. Investigation of the role of human breast milk in caries development. *Pediatr Dent* 1999;21(2):86-90.
4. American Academy of Pediatric Dentistry. Guideline on infant oral health care. *Pediatr Dent* 2007;29(suppl):81-4.
5. Acs G, Lodolini G, Kaminshy S, Cisneros GJ. Effect of nursing caries on body weight in pediatric populations. *Pediatr Dent* 1992;14(5):302-5.
6. Ludwig DS, Peterson KE, Gormaker SL. Relation between consumption of sugar-sweetened drinks and childhood obesity: A prospective, observational analysis. *Lancet* 2001;357(9255):505-8.
7. Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM. Overweight and obesity among US children, adolescents, and adults, 1999-2002. *JAMA* 2004;291(23):2847-50.
8. American Academy of Pediatrics Committee on Nutrition. Policy statement on prevention of pediatric obesity and overweight. *Pediatrics* 2003;112(2):424-30.
9. US Dept of Agriculture, US Dept of Health and Human Services. *Dietary Guidelines for Americans*. 6th ed. Washington, DC: US Dept of Agriculture and US Dept of Health and Human Services; 2005. Available at: "http://www.health.gov/dietary_guidelines/dga2005/document/". Accessed December 23, 2007.
10. Stang J, Bayerl CT. Position of the American Dietetic Association: Child and adolescent food and nutrition programs. *J Am Diet Assoc* 2003;103(7):887-93.
11. US Dept of Agriculture. Available at: "<http://www.mypyramid.gov/>". Accessed December 23, 2007.
12. American Dietetic Association. Available at: "<http://www.eatright.org/>". Accessed December 23, 2007.