

Policy on Snacks and Beverages Sold in Schools

Review Council

Council on Clinical Affairs

Latest Revision

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Purpose

The American Academy of Pediatric Dentistry (AAPD) recognizes that targeted marketing and easy access to sweetened foods and beverages (acidulated carbonated and noncarbonated) by children and adolescents may increase the amount and frequency of their consumption which, in turn, may contribute to an increase in caries risk and a negative influence on overall nutrition and health.

Methods

This document was developed by the Council on Clinical Affairs and adopted in 2002. The last revision occurred in 2009 and was reaffirmed in 2012. This revision is based upon a review of current dental and medical literature, including a search of the PubMed®/MEDLINE database using the terms: schools, vending machines, AND caries; fields: all; limits: within the last 10 years, humans, English, clinical trials, and ages birth through 18. The update also included a review of the American Academy of Pediatrics' (AAP) policy on soft drinks in schools,¹ the AAP's policy on snacks, sweetened beverages, added sugars and schools,² and the U.S. Department of Agriculture (USDA) policy on school meals.^{3,4} Papers for review were chosen from the resultant lists and from hand searches. Expert and/or consensus opinion by experienced researchers and clinicians also was considered.

Background

Contemporary changes in beverage consumption patterns have the potential to increase dental caries rates in children. Vending machines provide ready access to highly-refined carbohydrates, especially soft drinks.* Consumption of regular soda pop, powdered beverages, and to a lesser extent 100 percent juice has been associated with an increased caries risk.⁵ The acids present in carbonated beverages can have a greater deleterious effect (i.e., erosion) on enamel than the acids generated by oral flora from the sugars present in sweetened drinks.⁶ Analysis of the third National Health and Nutrition Examination Survey (NHANES) III data⁷ indicated that 13 percent of children aged two through 10 had diets high in consumption of carbonated soft drinks, and these children had a significantly higher dental caries experience in the primary dentition than

did children with other fluid consumption patterns.⁸ A significant increase in caries scores has been reported for children who attended schools that had vending machines.⁹

There is growing concern that vending machine items with limited nutritional value are competitive foods, resulting in snack options that are considered to be of poor nutritional quality.¹⁰⁻¹² As teenage girls have increased their consumption of soft drinks, their consumption of milk has decreased by 40 percent, which may contribute to a decrease in bone density, subsequent increase in fractures, and future risk of osteoporosis.^{13,14} Increased ingestion of sugar-sweetened drinks also has been linked to the increased incidence of childhood obesity.¹⁵ Of all beverages, increasing soda consumption predicted the greatest increase of body mass index (BMI) and the lowest increase in calcium intake.¹⁶ Carbonated soda consumption was negatively associated with vitamin A intake in all age strata, calcium intake in children younger than 12 years, and magnesium intake in children aged 6 years and older.¹⁷ Many soft drinks also contain significant amounts of caffeine which, if consumed regularly, may lead to increased, even habitual, usage.¹⁸

In 2013, the USDA initiated smart snacks standards prompting school districts to offer healthier food and beverages in vending machines, school stores, and à la carte cafeteria lines.¹⁹ The final rules released by the USDA in July, 2016 state that schools must continue to meet strong nutritional guidelines for snacks/drinks sold to children, and they prevent marketing of foods and drinks inconsistent with those standards.⁴ The USDA's rules establish a national baseline of these standards with the overall goal of improving health and nutrition of our children.

Policy statement

The AAPD:

- Encourages collaboration with other dental and medical organizations, governmental agencies, education officials, parent and consumer groups, and corporations to increase public awareness of the adverse effects of frequent and/or inappropriate intake of sugar-sweetened

ABBREVIATIONS

AAP: American Academy of Pediatrics. **AAPD:** American Academy Pediatric Dentistry. **USDA:** U.S. Department of Agriculture.

* For the purposes of this statement, the term soft drinks refers to such beverages as sodas, fruit juices, and sports drinks.

beverages and low nutrient dense snack foods on children's oral health and general health.

- Promotes educating and informing the public regarding the importance of good nutritional habits as they pertain to consumption of items available in vending machines.
- Encourages school officials and parent groups to consider the importance of maintaining healthy choices in vending machines in schools and encourages the promotion of food and beverages of high nutritional value; bottled water and other more healthy choices should be available instead of soft drinks.
- Opposes any arrangements that may decrease access to healthy nutritional choices for children and adolescents in schools.

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