

Policy on Vending Machines in Schools

Originating Council

Council on Clinical Affairs

Review Council

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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 policy is based on a MEDLINE search for the term "vending machines" and review of the American Academy of Pediatrics' policy on soft drinks in schools¹ and the US Department of Agriculture's (USDA) policy on school meals.²

Background

There has been a reduction in untreated caries among certain demographic groups of children and adolescents in recent years.³ Frequent consumption of refined carbohydrates, however, can be a significant factor in the child and adolescent diet that contributes to the initiation and progression of caries.⁴ Vending machines provide ready access to highly refined carbohydrates, especially soft drinks.* The acids present in carbonated beverages can have a greater deleterious effect (ie, erosion) on enamel than the acids generated by oral flora from the sugars present in sweetened drinks.⁵ Many soft drinks also contain significant amounts of caffeine, which, if consumed regularly, may lead to increased, even habitual, usage.⁶

There is growing concern that vending machine items with limited nutritional value are "competitive foods" with menu items approved by the USDA for National School Meal Programs.⁷ In 2003, a study of 251 middle and high schools in 24 states found that 73% of the beverage and 83% of the snack options were considered to be of poor nutritional quality.⁷ An effort is underway to increase the healthy choices available in vending machines by replacing sugar-sweetened drinks with bottled water, candy bars with nutrition bars, and potato chips with dried fruits and nuts.⁸

Increased consumption of refined carbohydrates by children and adolescents may have a negative impact on their overall nutrition by displacing foods with higher nutrient density.⁹ Nutrient density refers to the amount of nutrients in a food compared to the calories. Foods low in calories and high in nutrients are nutrient rich (dense). Foods high in calories and low in nutrients are of poor nutritional quality. As teenage girls have increased their consumption of soft drinks, their consumption of milk has decreased by 40%, which may contribute to a decrease in bone density, subsequent increase in fractures, and future risk of osteoporosis.^{10,11} Increased ingestion of sugar-sweetened drinks also has been linked to the increased incidence of childhood obesity.¹²

Many beverage and snack food products are targeted specifically and aggressively at the child and adolescent market. Vending machines containing these products are readily accessible to children and adolescents in schools. In exchange for money to the individual school or districts, "pouring rights contracts" give beverage companies exclusive rights to sell their products at school events and place vending machines on school property, along with other measures that increase student exposure to the beverages.¹³⁻¹⁵ Presently, several states have legislation and others are considering legislation to limit pouring rights contracts to healthier options.¹⁵

Policy statement

The AAPD:

1. encourages collaboration with other dental and medical organizations, governmental agencies, education officials, parent and consumer groups, and corporations to increase public awareness of the negative effects of frequent and/or inappropriate intake of sweetened drinks (carbonated and noncarbonated) and low nutrient dense snack foods on infant, child, and adolescent oral health, nutrition, and general health;
2. opposes any arrangements that may decrease access to healthy nutritional choices for children and adolescents;

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

3. 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 always should be available at the same place that soft drinks are offered;
4. promotes educating and informing the public about the importance of good oral hygiene and nutritional habits as they pertain to consumption of items available in vending machines.

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