

Chocolate Milk in Schools

As pediatricians and professors dedicated to the prevention of childhood obesity, we were disappointed by the March 2015 American Academy of Pediatrics' Policy Statement on "Snacks, Sweetened Beverages, Added Sugars, and Schools."¹ The American Academy of Pediatrics' Committee on Nutrition and Council on School Health endorsed this statement, which seems to accept the trend that 70% of milk consumed in schools is "flavored" and minimizes the detrimental health effects of flavored milk because children consume "nutrient-rich nonfat milk" with added sugar and chocolate.

The committees' endorsement of adding sugar to the milk of millions of schoolchildren conflicts with the majority of leading health organizations' recommendations, such as the American Heart Association, which recommends that children consume only 3 to 4 teaspoons of added sugar per day.² If a child drinks a single 8-oz carton of flavored milk at school, he or she will consume the recommended daily amount of added sugar in 1 sitting. Interestingly, this endorsement also contradicts the Committee on Nutrition's own 2011 clinical report on sports drinks and energy drinks, which stated, "In general, there is little need for carbohydrate-containing beverages other than the recommended daily intake of fruit juice and low-fat milk."³ The authors of the recent policy statement cite references which report that "flavored milk [*sic*] consumption is not associated with weight gain or even a higher total daily sugar intake in children." However, the cited studies stand in conflict with a large body of evidence showing that avoidance of sugar-sweetened beverages is a major strategy for the prevention of childhood obesity.⁴

In their endorsement of flavored milk offerings in schools, the authors should

have noted the limitations of the studies cited in the policy statement.¹ The study citing flavored milk's lack of an adverse impact on weight had relatively low rates of flavored milk consumption, and it calculated whether the mean BMI was changed, rather than rates of obesity.⁵ The studies citing increased "milk wastage" were limited in that they were quasi-experimental, had short follow-up periods, and did not comprehensively assess the impact that removal of flavored milk in schools would have on students' daily nutrient and caloric intake.

As pediatricians, we have the trust of the public and the obligation to "primum, non nocere" (first, do no harm). It seems important that an endorsement of sugar-flavored milk in schools, an admittedly "controversial" issue according to the authors,¹ should reflect a sound body of evidence. The evidence shows that sugar-sweetened beverages are a major source of excessive sugar intake for children and that excessive energy and sugar consumption can lead to obesity and dental caries. In light of these findings, we encourage these committees to critically review their statement and reconsider how flavored milk offerings in schools may affect children's health and well-being.

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Conflict of Interest:
None declared.

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Authors' Response

Reply to: Chocolate Milk in Schools

The nutrition community offers 2 different approaches to better health through dietary change: first, eliminate "bad nutrients"; and second, build a strong dietary pattern. These approaches seem complementary but in practice are often adversarial. The comments by Drs Dooley, Patel, and Schmidt illustrate the problem.¹

Children consume excess "empty" calories from added sugars that must be curtailed. More than 70% of these calories come from candy, soft drinks, fruit drinks, and grain deserts, which are all excellent targets. But when we urge total prohibition, regardless of the consequences on a child's total diet, we then do harm.

What are we trying to accomplish by removing flavored milk from schools? A reduction in obesity? Shouldn't we show that elimination of flavored milk accomplishes that goal or, at the very least, cuts daily calories or added sugars? The data we have show no increase in obesity or intake of added sugars.¹ More accurately, studies by Nicklas et al² found that drinkers of flavored milk have a higher quality of diet. Would adults consume equal amounts of yogurt if it was strictly unflavored or oatmeal if it was only unsweetened? Four studies have reported on consumption patterns after removal of flavored milk, and each showed a significant decrease in milk consumption. Harm was done with no discernible benefit (ie, a policy based on assumptions).

Dairy's declining consumption may have as much to do with cardiometabolic disease as it does with the increased use of added sugar. Dairy lowers the risk of cardiovascular disease, hypertension, and type 2 diabetes.³ It is the primary source for 3 of 4 nutrients of concern (calcium, vitamin D, and potassium) cited in the Dietary Guidelines. Sufficient bone mass must be accrued during childhood and adolescence to ensure bone health for life.⁴ If intake falls as a result of our policy to remove flavored milk, how will those nutrients be replaced within the strict economics of school meals? We can't just shrug. Failure to achieve dairy recommendations is already a major contributor to serious health disparities in the United States.

The intersection of fat deposition, genetics, diet, and activity is extraordinarily complex, confounding a one-size-fits-all obesity narrative. Added sugars have certainly contributed to increased consumption of calories. Intake of added sugar in the United States throughout the 20th century was always high but rose by 20% between 1980 and 2000 to >75 lb per person per year as obesity took hold. However, producer countries such as Cuba and Brazil far exceed the United States, at 134 and 123 lb per person per year, respectively. Although China has the lowest per capita consumption (15 lb per person per year), it still has rapidly rising obesity and strikingly high levels of type 2 diabetes.⁵ There are many pathways to obesity.

In the realm of consumer education, simple guidance can be helpful, but simplistic messages sow frustration, confusion, and distrust. Nutrition is particularly prone to "white hat bias"; that is, strongly held positions staked on moral certainty and proof not needed. Campaigns against cholesterol, fat, and high-fructose corn syrup all shared the same righteous surety as that against added sugar. But we were wrong and did more harm than good.

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