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From aspartame to stevia: Policy looks at nonnutritive sweetener use in children

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While initial concerns regarding the potential carcinogenic effects of nonnutritive sweeteners are unsubstantiated, there is more to learn regarding how they affect taste preferences, the risk for diabetes, weight and long-term safety in children, according to a new AAP policy statement.

Nonnutritive sweeteners approved by the Food and Drug Administration (FDA) include saccharin, aspartame, acesulfame potassium, sucralose, stevia, neotame and advantame. People are using these agents largely to avert the adverse cardiometabolic effects associated with nutritive sweeteners (e.g., sugar).

The Use of Nonnutritive Sweeteners in Children, a policy statement from the Committee on Nutrition and Section on Gastroenterology, Hepatology and Nutrition, highlights what is known regarding nonnutritive sweetener use in children and areas that deserve further research. The policy is available at https://pediatrics.aappublications.org/content/early/2019/10/25/peds.2019-2765 and will be published in the November issue of *Pediatrics*.

The policy reviews the following topics:

- processes for approving use of nonnutritive sweeteners in the general U.S. population,
- estimates of the penetrance of these products and pediatric consumption,
- what is known regarding the impact of nonnutritive sweetener use on appetite and taste preference, and
- safety of these agents, including their use in special pediatric populations (e.g., children with obesity, metabolic syndrome, attention-deficit/hyperactivity disorder [ADHD] and autism).

Key findings, recommendations

- FDA-approved nonnutritive sweeteners are 180 to 20,000 times sweeter than sugar.
- The long-term safety of nonnutritive sweetener use in children has not been assessed.
- The number of consumer products containing these agents has quadrupled over the past several years.
- Substituting a nonnutritive sweetener for a sugar sweetener may reduce weight gain and promote small amounts of weight loss in children, but data are limited.
- The FDA should require products marketed in the U.S. to include labels listing the type and quantity of any nonnutritive sweeteners contained per serving.
- High-quality research studies need to be funded on use of these products in childhood.

Advising families

The policy suggests pediatricians share the following with families:

- Nonnutritive sweeteners are FDA approved for human use or are approved under the category of generally recognized as safe (GRAS).
- The GRAS designation is based on consumption within an acceptable dietary intake level. At this time, it is not possible to measure an individual's daily intake.
- Higher-quality data suggest nonnutritive sweeteners help with weight stabilization and/or weight loss in the short term. Long-term data are lacking.
- High-quality evidence suggests there is no association between nonnutritive sweetener use in children and ADHD.
- Data are limited on the possible effects of nonnutritive sweeteners and appetite change and taste preferences.

Dr. Baker-Smith is a lead author of the policy statement and a pediatric cardiologist.