

What parents need to know about sugar

Kids consume most of liquid sugars at home, so avoid having juice, sweetened beverages and soda in the house; replacing these with diet drinks is even worse

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It goes beyond tooth decay. Parents need to take note of their children's sugar intake to keep them healthy. The daily recommendations for added sugars for children are zero below 2 years old, 4 teaspoons between 2 and 5 years old, 5 teaspoons at 8 years old and 6 teaspoons at 12-18 years old. The American Academy of Pediatrics does not recommend giving infants juice before 12 months of age.



If you think fruit juice is better for kids than soda, think again.

Of course, juice would have a slight nutritional edge when fortified with vitamins and minerals to make the buyer feel like a good parent. But did you know that even freshly squeezed fruit juice would have more sugar than the same serving of soda?

While high fructose corn syrup gets a bad rap for being high in fructose at 55 percent, soda has 65 percent, apple juice has 70 percent and agave syrup has 90 percent.

At the 2023 Truth About Weight Loss Summit online hosted by Chef AJ, Dr. Michael Goran educated the audience about the differences between sugars, of which there are now 200 different names. That makes it even more challenging to identify them.

Adverse effects

Goran is a professor of pediatrics at the Children's Hospital Los Angeles, program director for Diabetes and Obesity at The Saban Research Institute and editor in chief of the journal *Pediatric Obesity*. Looking beyond body weight, he explained the adverse effects of increased sugars in our diet.

Glucose-based sweeteners, like corn syrup and organic brown rice syrup, lead to glycemic effects, hyperglycemia and high insulin. If we eat too much glucose, it will be stored as glycogen, then as fat.

Fructose-based sweeteners, such as high fructose corn syrup, fruit juice concentrates and agave, lead to fructose metabolism. Unlike glucose, it isn't used directly for energy and doesn't call for an insulin response. Fructose converts to fat in the liver, leading to

fatty liver, high blood lipids and cardiovascular risk. It promotes an inflammatory state and differential effects on the brain and appetite.

Drinking juice or a sugary drink bombards your body with fructose malabsorption, changing your gut microbiome. Eating whole fruit doesn't have the same effect because it has much less fructose, which is slowly released along with the fiber.

Goran revealed that nonalcoholic fatty liver disease (NAFLD) is now the most common form of liver disease replacing alcohol-induced liver disease. Since it is usually symptomless, it's hard to catch especially in children.

He showed cross-section images of two obese teens' midsections. One had visceral fat, which wraps around the internal organs, while the other had subcutaneous fat, which lies just under the skin around the belly.

The visceral fat engulfed all the organs. It is strongly linked to metabolic disease, insulin resistance and an increased risk of death, even for those with a normal body mass index. While subcutaneous fat doesn't carry the same risks as visceral fat, Goran pointed out how the liver had NAFLD.

Early feeding

He demonstrated the impact of different types of early feeding on the gut microbiome and cognitive outcomes. Breastfeeding is best, as a lactose-reduced formula with corn syrup solids or added sugar will lead to premature microbiome development, disruption of eating behaviors, increased risk of obesity in early life and risk of Type 2 diabetes.

Goran also presented how the regular consumption of sugary beverages shrinks the brain (Pase et al, "Alzheimer's &

Dementia," 2017). Subjects experienced a 24-percent increase in adverse effects of such drinks on obesity at 2-4 years old, affecting scores in reading, writing and math.

The daily recommendations for added sugars for children (based on 5 percent of energy intake at each age) are zero below 2 years old, 4 teaspoons between 2-5 years old, 5 tsp at 8 years old and 6 tsp at 12-18 years old.

A blueberry muffin, a tall mocha frap, or a 12-ounce soda would have 10 tsp sugar. A cup of juice would have 6 tsp, a chocolate chip cookie would have 5 tsp and a cup of cereal or a 4-oz yogurt has 3 tsp.

The American Academy of Pediatrics (2017) recommends no juice before 12 months of age, 4 oz for toddlers 1-3 yrs, 4-6 oz for 4-6 yrs and 8 oz for 7-18 yrs. As these aren't added sugars, Goran said it's unclear why they are classified differently than sugars in soda.

Eliminating sugary drinks

He shared some strategies for eliminating liquid sugar (sugary beverages). Since research shows that kids consume most of this at home, avoid having juice, sweetened beverages and soda in the house (replacing it with diet drinks is worse). To wean off sugary drinks, add ice or dilute them with water. Make water the default drink. Add flavor with mint leaves, sliced cucumber or citrus fruit.

Eat fruit, don't drink it. Orange juice (16 oz) has 224 calories, over 12 tsp sugar and 0 fiber, while an orange has 45 calories, 2 1/4 tsp sugar and 4 g fiber.

As for smoothies, commercial ones often have added sugars and fruit concentrates. Blended whole fruit is okay because fiber and nutrients are retained. You can also supplement with sources of protein and fiber to help balance blood glucose and promote gut health. At home, choose less processed sugars like coconut sugar and maple syrup. Decrease sugar in recipes by 30 to 50 percent. Check for recipes that use whole foods like bananas and dates as a sweetener for natural taste and fiber and phytonutrients for less overall sugar and blunted glycemic response.

Goran considers low-calorie and alternative sweeteners as fool's gold as the food may have less sugar, but the effect on your body makes you consume more real sugar food. The usual suspects like aspartame, sucralose and saccharin are not the only no-nos. Sugar alcohols like erythritol, xylitol and sorbitol and naturally derived ones like stevia, monk fruit and yacon syrup are, too.

“Sugar rush” has been synonymous with children's parties and kiddie meals, but it doesn't have to be. We can still guide our kids on to a healthier path.

Learn more at thetruthaboutweightloss.org.