

NON-SUGAR SWEETENERS



Sweeteners are classified in two different groups: **nutritive sweeteners** (also called caloric sweeteners or sugars) and **non-nutritive sweeteners** (also called sugar substitutes or artificial sweeteners).

Nutritive Sweeteners

Nutritive sweeteners provide calories to the body. In addition to sucrose, commonly known as table sugar, nutritive sweeteners include agave, brown sugar, confectioner's (powdered) sugar, corn syrup, dextrose, fructose, fruit juice concentrate, glucose, high-fructose corn syrup, honey, invert sugar, lactose, malt sugar, maltose, maple syrup, molasses, nectars, raw sugar and syrup. These all raise your blood sugar.

Non-Nutritive Sweeteners

These are low- or no-calorie alternatives to nutritive sweeteners. These sugar substitutes may be naturally occurring or artificially made. Naturally occurring sugar substitutes include stevia, monk fruit, and sugar alcohols. Artificial sweeteners are man-made sweeteners that contain no calories or sugar. There are six different artificial sweeteners that the FDA has thoroughly tested and approved for use: AceK, Advantame, Aspartame (Equal), Neotame, Saccharin (Sweet' N' Low), Sucralose (Splenda). Although artificial sweeteners are sweeter than sugar, they are calorie-free because they are not completely absorbed by the digestive system.

BENEFITS

- Replacing added sugar with sugar substitutes may reduce the risk of tooth decay and cavities.
- Sugar substitutes do not raise blood sugar levels.
- Sugar substitutes can potentially assist in short-term weight management for adults and children with overweight or obesity due to their low or zero calorie content.

CONCERNS

- Some studies suggest a potential link between long-term, daily use of artificial sweeteners and a higher risk of stroke, heart disease, and overall mortality, although other lifestyle factors may contribute to this risk.
- Ongoing research examines the impact of sugar substitutes on the gut-brain connection, including cravings, hunger, and blood sugar management.
- Sugar alcohols, stevia, & monk fruit can cause bloating, gas, and diarrhea

Takeaway: Artificial sweeteners can temporarily aid in reducing sugar intake and managing weight, generally being safe for healthy adults. However, it's important to be mindful of their impact on food choices and potential reliance on sweetness, as well as the misleading nature of processed foods labeled as low or no sugar. While artificial sweeteners can provide a calorie-free sweet option, they should be used in moderation as part of an overall healthy diet, which emphasizes whole foods, exercise, and long-term wellness.

Acesulfame-K

- 200 x sweeter than sugar
- Acceptable Daily Intake: 15 mg/kg/day
 - 150 lb person could have 1020 mg/day safely
 - 13 Fairlife Protein Shakes



Aspartame

- 180 x sweeter than sugar
- Acceptable Daily Intake: 50 mg/kg/day
 - 150 lb person could have 3,400 mg/day safely
 - 92 Equal packets
 - 17 cans of diet pop



Saccharin

- 300 x sweeter than sugar
- Acceptable Daily Intake: 15 mg/kg/day
 - 150 lb person could have 1020 mg/day safely
 - 28 packets of Sweet'N'Low



Sucralose

- 600 x sweeter than sugar
- Acceptable Daily Intake: 5 mg/kg/day
 - 150 lb person could have 340 mg/day safely
 - 75 Fairlife Shakes
 - 28 packets of Splenda



Stevia

- 200-400 x sweeter than sugar
- Acceptable Daily Intake: 4 mg/kg/day
 - 150 lb person could have 272 mg/day safely



Monk Fruit

- An Acceptable Daily Intake has not been specified for Monk Fruit
- Often used in baking and combined with sugar alcohols



Sugar Alcohols

- Contain 2.6 calories/gram (artificial sweeteners + stevia contain 0 and sugar contains 4)
- Can cause diarrhea and bloating due to not being completely absorbed



References:

- <https://www.fda.gov/media/168517/download>
- <https://ohioline.osu.edu/factsheet/hyg-5584>
- <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/artificial-sweeteners/art-20046936>
- <https://www.uab.edu/shp/nutritiontrends/recipes-food-facts/food-facts/artificial-sweeteners#:~:text=exist%20in%20nature,-,Acceptable%20Daily%20Intake%3A%205%20milligrams%20for%20each%20kilogram%20of%20body,contains%2012%20milligrams%20of%20sucralose.>