



Sugar Substitutes

Types of Sweeteners

Nutritive Sweeteners (Sugars)

sucrose • glucose • fructose • lactose
dextrose • honey • corn syrup
molasses • agave nectar • etc.

- ▶ 4 calories per 1 gram
- ▶ Count as carbohydrate in meal plan
- ▶ Strong glycemic impact (Strongly affects blood sugar level)

Low-Calorie Sugar (Newer Category)

- ▶ Naturally occurring simple sugars (monosaccharide); may be listed as Allulose in ingredient list
- ▶ Behaves like ordinary sugar, but 1/10 the calories; no carbohydrates to count
- ▶ No glycemic impact
- ▶ Talk with health care team before use if using fast-acting insulin

Non-Nutritive Sweeteners (Sugar Substitutes or Artificial Sweeteners)

- ▶ Alone or blended with cane sugars or other fillers
- ▶ Low-calorie, minimal calories or no calories
- ▶ Often strong sweeteners
- ▶ Glycemic impact varies – Read food labels for carbohydrates

Sugar Alcohols

- ▶ 2 calories per 1 gram
- ▶ Count as carbohydrate in meal plan
- ▶ Lower glycemic impact than sugar; digested slowly
- ▶ Warning: Do not overuse

Official Positions on Sugar Substitutes

Academy of Nutrition and Dietetics

- ▶ Non-nutritive sweeteners (sugar substitutes), when used in place of “nutritive” or “caloric” sweeteners (sugars), may help cut carbohydrate and energy intake to help people manage blood sugar levels or weight.
- ▶ When added to a person’s diet, sugar substitutes have shown to help with some weight loss and, as part of a weight-control program, may help with long-term health management and weight loss.
- ▶ When used in place of caloric sweeteners, sugar substitutes can help people reduce calories, as long as other foods are not added in as “compensation.”

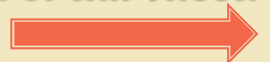
American Heart Association and American Diabetes Association

- ▶ Using sugar substitutes in place of sugars in foods and drinks may help people reach and maintain a healthy body weight, as long as the substitution does not lead to eating more later.
- ▶ For people with diabetes, sugar substitutes—when used appropriately in foods and drinks—are an option to help with blood glucose (sugar) control.

2015 Dietary Guidelines Advisory Committee (USDA and U.S. Department of Health and Human Services)

- ▶ Short-term clinical trials with children and adults show low-calorie sugar substitutes reduce calorie intake, body weight and body fat.
- ▶ Sugar substitutes used to replace sugar can help short-term weight loss. But there is not enough evidence to support using sugar substitutes for long-term weight loss or for maintaining a person’s weight.
- ▶ Recommendation: Since the long-term effects of sugar substitutes are not known, they should not be used as a primary replacement for added sugars to foods and drinks.
- ▶ Recommendation: Added sugars should be reduced in a person’s diet and not replaced with low-calorie sugar substitutes. Instead, replace sugary foods and drinks with healthy options, such as drinking water instead of sugar-sweetened juices or sodas.

There Is More Information on the Back of this Sheet.





U.S. Food and Drug Administration (FDA)-Approved Low-Calorie Sweeteners (Sugar Substitutes)

- Saccharin
- Aspartame
- Neotame
- Acesulfame-K
- Sucralose
- Stevia (95% high purity extracts)
- Luo Han Guo/Monk Fruit
- Advantame
- Allulose (very sweet!)



PROHIBITED: Cyclamates ▪ Whole leaf and crude Stevia

What to Consider When Using Sugar Substitutes

- Blood sugar response** What is the glycemic impact?
- Nutritive value** How nutritious is the food or drink?
- Sweetness** Some substitutes are hundreds of times sweeter than ordinary sugar.
- Use** Are you using it in cooking or baking? Is it an ingredient in a food or beverage?
- Serving size** How big is the food or drink?
- Acceptable Daily Intake (ADI)** The ADI for a 150 pound person is about 8 packets of saccharin sweetener or 97 packets of aspartame.
- Estimated Daily Intake (EDI)** Get out your calculator!
- FDA approved** Is the sweetener generally recognized as safe?
- PKU** People with phenylketonuria (PKU), an amino acid disorder, should not use aspartame.
- Health risks** Artificial sweeteners do not cause cancer or birth defects.

Key Takeaways about Sugar Substitutes



Sugar substitutes can help you cut back on your carbohydrates. They also might help you control your weight.



Ask yourself: Will the sweetener significantly improve or affect my glycemic (blood sugar) response? You may want to talk with your health care team about sugar substitutes.

Make sure the sugar substitutes you use are FDA-approved.

Read the nutrition facts/food labels on all your grocery purchases. You may or may not have to adjust your carbohydrates based on what the label says.

Always “do the math” to figure out your Acceptable Daily Intake (ADI) for sweeteners. You can over do it if you are not careful.

Low-calorie sugars is a newer “sweetener” category. They are usually very sweet, so very little is needed. One low-calorie sugar you may want to learn more about is Allulose.



Think about healthy options instead of using sugar substitutes in foods and beverages. Is there something you can eat or drink that does not have sugar or need sugar substitutes?

Sugar is found in different forms and names, such as honey or corn syrup. Even if a food or drink claims to have “natural” sweeteners, pay attention to what the label says about the number of calories and carbohydrates it has per serving.

Moderation when using low-calorie sugar substitutes or artificial sweeteners is very important!

Resources: “Sugar Substitutes: How Much Is Too Much?” *Academy of Nutrition and Dietetics* website. Reviewed by Wendy Marcason, RDN. Published February 11, 2015; “The Inside Scoop on Artificial Sweeteners.” *Academy of Nutrition and Dietetics* website. Karen Ansel, MS, RDN, CDN. Published January 21, 2014.