
Overview of Sweeteners

If you find yourself confused by the many different types of sweeteners found in processed foods, you're not alone. Many processed foods contain multiple forms of sweeteners, which can make it difficult to determine the various types of sugar the food contains. In functional nutrition, "sugar" is an umbrella term that is used to describe the four main types of sweeteners: caloric sweeteners, artificial sweeteners, sugar alcohols, and natural sugar alternatives.

Caloric Sweeteners

Caloric sweeteners are any sweetener that contains calories, including natural sweeteners like honey. These sweeteners are found in a wide variety of foods, including most packaged foods. Consuming these sweeteners frequently, especially in sugar-sweetened beverages, have been associated with an increased risk of several chronic diseases. Limiting caloric sweeteners is important for overall health.

Examples: table sugar (sucrose), agave, brown rice syrup, coconut sugar, crystalline fructose, dextrose, fruit juice concentrates, glucose syrup, high-fructose corn syrup, honey, maltodextrin, maple syrup, molasses, trehalose

Artificial Sweeteners

Artificial sweeteners are any sweetener that is not found in nature, contains few or no calories, and is used in place of caloric sweeteners. These are often used in processed foods (often marketed as "sugar free" or "diet-friendly"), toothpaste, and mouthwash. Artificial sweeteners are a controversial topic, as some studies report negative health associations and other research supports their use in moderation. In some circumstances, an artificial sweetener may be preferable to other sweetener choices. For more information, see IFM's [Artificial Sweeteners](#) document.

Examples: acesulfame K, aspartame, advantame, neotame, saccharin, stevia, sucralose, and all brand-name sweeteners that contain these (NutraSweet, Splenda, Equal, Sweet N'Low)

Sugar Alcohols

Sugar alcohols have fewer calories than caloric sweeteners, and they aren't as sweet as sugar. They are manufactured or derived from some fruits and vegetables. They are often added to baked goods, fruit spreads, chewing gum, mouthwash, toothpaste, and other processed

foods. One advantage to consuming these is they do not cause dental cavities. These should be avoided if you have digestive problems (like bacterial overgrowth, yeast overgrowth, or irritable bowel syndrome), as some sugar alcohols can cause diarrhea and bloating.

Examples: erythritol, isomalt, lactitol, maltitol, mannitol, sorbitol, xylitol

Natural Sugar Alternatives

Natural, non-caloric sweeteners can be a good alternative when you are trying to limit or avoid caloric sweeteners and artificial sweeteners. For more information, see IFM's [Natural Sweeteners](#) document.

Examples: monk fruit, allulose, stevia, tagatose

Added Sugars on Food Labels

It is recommended to limit all sweeteners, especially added sugars in foods and beverages. Added sugars are caloric sweeteners that are not naturally found in a food. They are very common in packaged foods, including in unexpected foods like pasta sauce and bread. **IFM recommends that added sugars should be kept as low as possible.** The American Heart Association recommends that the maximum amount of added sugars a person should eat in a day is:

- No more than **9 teaspoons for men** (equal to 36 grams, or 150 calories per day)
- No more than **6 teaspoons for women and children** (equal to 25 grams, or 100 calories per day)

To put those amounts in perspective, a can of soda or a candy bar contains about 8 teaspoons of added sugar. Foods and beverages that commonly contain added sugars include: baked goods and desserts, soda, teas, energy drinks, breakfast cereals, soups, yogurts, breads, lunch meats, salad dressings, and many processed foods.

The Relationship between Fiber and Sugar

The fiber in food helps determine how your body is impacted by both naturally occurring and added sweeteners. When eating naturally sweet or sweetened foods with little or no fiber, sugar enters the blood stream all at once, causing a spike in blood sugar levels. This temporary energy boost, or "sugar rush" is quickly followed by a crash, which results in low energy. Fiber helps slow the body's absorption of sugar and helps to keep blood sugar balanced. This helps keep energy levels more even throughout the day.

Some foods with naturally occurring sugars lack fiber, but this doesn't necessarily mean they should be avoided. When eating foods or beverages that lack fiber, it's important to pair them with fiber-rich foods to help slow the absorption of sugars into the bloodstream.

Reading Food Labels

The top section of a food label contains information about the serving size and the amount of servings in the entire container. In the label example below, the entire package of food contains 8 servings, and one serving is equal to $\frac{2}{3}$ cup, or 55 grams. To determine the amount of sugar you'll eat, multiply the grams listed on the label by the number of servings you eat from the package. For example, if you eat 2 cups of this food (which is 3 servings based on the listed serving size), you will be eating 36 grams of total sugars and 30 grams of added sugars.

Artificial sweeteners, sugar alcohols, and natural sugar alternatives are not included in the label's sugar count. To determine if a food contains these types of sweeteners, check the ingredients list of the food package.

Total Sugars:

This number includes the total amount of naturally occurring sugar and added sugars in the listed serving size of this food.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Added Sugars:

Total added sugars refers to the amount of sugar (in grams) that has been added to one serving of this food. This sugar does not naturally occur in the food; the food manufacturer has added it.

Note that the listed % Daily Value for added sugar is based on 50 grams per day, which is well over the American Heart Association's recommendation.



REFERENCES

1. Johnson RK, Appel LJ, Brands M, et al. Dietary sugars intake and cardiovascular health: a scientific statement from the American Heart Association. *Circulation*. 2009;120(11):1011-1020. doi:10.1161/CIRCULATIONAHA.109.192627.
2. Sylvetsky AC, Rother KI. Nonnutritive sweeteners in weight management and chronic disease: a review. *Obesity (Silver Spring)*. 2018;26(4):635-640. doi:10.1002/oby.22139.