Creating Health & Nutrition
Nutritive Sweeteners

Most of us like sweet foods. The earliest sweet foods available to humans were either fruits or honey. Later, when humans discovered how to refine the sweet juice of sugar cane and then sugar beets, it became easier to make foods sweeter by just adding refined sugar.

The table sugar that you buy in the grocery store, sucrose, is made from sugar cane or sugar beets. It is a disaccharide made of two simple sugar molecules, glucose and fructose, linked together. Glucose and fructose can also be used independently as ingredients.

Other nutritive sweeteners used as ingredients in foods include high-fructose corn syrup, corn syrup, galactose, lactose, and maltose. Fructose also occurs naturally in many fruits, while lactose is what gives milk its slightly sweet taste. Some vegetables have other “natural” sugars.

Plus, we can use natural sweeteners like honey, agave nectar, molasses, and maple syrup at home.

Tip
To reduce calories from sweeteners, read the Nutrition Facts panel on food products. It will tell you how many grams of sugar the food contains. Then compare products. Which has less sugar?

As a result, in 2015 Americans consumed about 69 pounds of sugar per person per year, or roughly 21 teaspoons of refined sugar per day. This equals 336 calories that most of us do not need in our diets.

For example, an 8-ounce can of regular Pepsi has the equivalent of approximately 10 teaspoons of sugar and contains 150 calories. Drinks containing high amounts of added sugar account for more than 47 percent of added sugars in the American diet. It is very easy to take in more sweetener than needed.

Role in Nutrition
Refined sugar and similar sweeteners are carbohydrates. Our bodies use carbohydrates as energy sources. We can measure that energy in calories. Sucrose, glucose, and fructose all contain energy—4 calories’ worth per gram and 16 calories per teaspoon—but no useful vitamins or minerals. Thus, we often call sweetener calories “empty calories.” This is why we need to be careful about choosing foods with “added sugars,” especially in foods that we choose for children.

The 2015–2020 U.S. Dietary Guidelines recommends limiting added sugars to less than 10 percent of calories per day, which equates to fewer than 200 calories for a 2,000-calorie diet, or fewer than 160 calories for a male child age 4 to 8 or a female child age 9 to 13. However, currently, Americans are consuming roughly 270 calories, or 13–17 percent, added sugars daily. Here, “sugar” refers to all the sweeteners mentioned. Since sugar contains calories, regularly consuming large amounts of sweets such as candy, cakes, and pies or drinking sugar-sweetened drinks...
Is using honey or other natural sweeteners a better choice than refined table sugar? The answer is no, if you’re looking for fewer calories. However, because some are sweeter than sugar, you can use less and save calories overall. For example, in some recipes you can use ½ cup of agave nectar instead of 1 cup of sugar, saving 288 calories. See the above table for a calorie comparison.

### Shopping Tips
One of the best ways to manage your sugar or sweetener intake is to read both the Nutrition Facts panel and the ingredient list on food packages.

- Currently, on the Nutrition Facts panels all sugar is listed under total carbohydrates. Beginning in 2018, added sugar information will be broken out and listed. The sugar content will include naturally occurring sugars (like those in fruit and milk) as well as those added to the food item. This will help you identify how much added sugar is in a product—for example, yogurt, which also has naturally occurring lactose and fructose if fruit is added.
- Check the ingredient list for the specific names of added sweeteners, such as sucrose, fructose, glucose, high-fructose corn syrup, lactose, and maltose. You may also see other refined sugars, such as confectioners’ sugar, powdered sugar, dextrose, maple syrup, turbinado sugar, and mannitol (a sugar alcohol). Sometimes glucose is listed as dextrose. Note the location of the sugar in the list. The ingredient listed first is the most by weight in that particular food item. If various sweeteners are high on the list, you might want to choose another food.
- Examine your choices. You can cut down on calories by using fewer processed foods made with sweeteners. For example, buy breakfast cereals having the least amount of sugars and add fresh fruit. Or purchase low-fat plain yogurt and add your own favorite fruit. If you’re thirsty, drink water and add a slice of lemon, lime, or orange for flavor.

### Sources

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### Examine Your Choices

<table>
<thead>
<tr>
<th>Food</th>
<th>What I buy now</th>
<th>What I plan to try</th>
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</thead>
<tbody>
<tr>
<td>Example: Cereal</td>
<td>Sugar frosted flakes</td>
<td>Plain whole-wheat flakes with some fruit on top</td>
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### My Goal:
I will compare Nutrition Facts and ingredient labels on three higher sugar foods or drinks I currently purchase, and choose a lower sugar alternative this week.