



# Look beyond high fructose corn syrup

## What's the difference between corn syrup and high fructose corn syrup?

High fructose corn syrup starts out as corn syrup. But food and beverage manufacturers alter the product for a number of reasons: High fructose corn syrup tastes sweeter than regular corn syrup. It also has good browning capabilities — a plus when making baked goods.

To really understand the science behind the sweetness, you need to know some background about the sugars sucrose, glucose and fructose.

Sucrose is table sugar. It's usually made from sugar cane or sugar beets. Chemically, it is made up of one molecule each of glucose and fructose, bonded together. Even though both are types of sugar, fructose tastes sweeter than glucose.

Corn syrup is primarily glucose, so it's not as sweet as table sugar. It's made from corn, which is a lot cheaper than sugar cane or sugar beets. To get a product that's as sweet as regular sugar, manufacturers add enzymes to regular corn syrup to convert some of the glucose to fructose, and that's what we know as high fructose corn syrup.

The most common types of high fructose corn syrup used by food and beverage manufacturers contain either 42 percent fructose or, even sweeter, 55 percent fructose. That compares with 50 percent fructose in table sugar. Despite the differences, all of these sugars contribute the same 4 calories per gram to the diet.

High fructose corn syrup has gotten a bad rap since 2004, when a commentary published in the American Journal of Clinical Nutrition suggested there could potentially be a link between its consumption and obesity. Other scientists questioned such a relationship, saying that high fructose corn syrup is no better or worse health-wise than other added sugars.

Studies are still being published in the scientific literature about how the body processes different sugars and if that makes a difference in health. However, the consensus today recommends that we focus our efforts on limiting all added sugars, not just high fructose corn syrup.

So, if you happen to see “No high fructose corn syrup” on the front of a label, be smart and look at the Nutrition Facts label for overall sugar content. Also look at the ingredients listing to see what other types of sweeteners the item might contain, such as agave, dextrose, maltose, brown rice syrup, fruit juice concentrate, maple syrup, evaporated cane juice, crystalized fructose, honey or molasses. They're all sugar.

For more about high fructose corn syrup from the U.S. Food and Drug Administration, see [bit.ly/fdahfcs](http://bit.ly/fdahfcs).

*Chow Line is a service of Ohio State University's College of Food, Agricultural, and Environmental Sciences and its outreach and research arms, Ohio State University Extension and the Ohio Agricultural Research and Development Center. Send questions to Chow Line, c/o Martha Filipic, 2021 Coffey Road, Columbus, OH, 43210-1043, or [filipic.3@osu.edu](mailto:filipic.3@osu.edu).*



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### Editor:

This column was reviewed by Bridgette Kidd, Healthy People program specialist for Ohio State University Extension, the outreach arm of the College of Food, Agricultural, and Environmental Sciences.

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