

# Question

I read on the Internet that high fructose corn syrup is not really the same as ordinary sugar, and is helping cause the current epidemics of obesity and diabetes. Is this true?

# Answer

No. High fructose corn syrup (HFCS) is made from corn and is used to sweeten most non-diet soft drinks in the United States and some other countries; it has almost exactly the same composition as common table sugar (sucrose). There is no conclusive scientific evidence to indicate that either HFCS or sucrose causes obesity or diabetes.

HFCS and sucrose contain similar amounts of fructose and glucose, but your body can't tell if the fructose and glucose are from table sugar, HFCS or any other source. Once consumed the sugar carbohydrates from these sources are broken down into glucose and fructose molecules before being absorbed into your bloodstream. After being absorbed, your body again has no way of knowing whether a molecule of fructose and glucose came from sucrose, HFCS, honey or fruit. Further, HFCS is not the same as fructose. As a result, studies of diets high in pure fructose do not provide good evidence of how HFCS acts in the body.

Neither HFCS in carbonated soft drinks nor any other single food or beverage is responsible for the problems of overweight, obesity or diabetes. Extra weight is gained when you take in more calories than your body burns, no matter where those calories come from. Extensive reviews of scientific evidence from several clinical researchers have found no relationship between carbohydrate intake – including the sugars in carbonated soft drinks – and diabetes.

## Comparing Sugars

The sugar most of us are familiar with is actually made up of molecules from two different sugars, fructose and glucose. Sucrose, also known as common table sugar, is formed when fructose and glucose combine. Whether they come from a soft drink, a sugar cube dropped in your coffee or an apple, your body is not able to tell the difference between these sugars.

Source	Composition
Table Sugar (Sucrose)	Combination of fructose and glucose
High Fructose Corn Syrup	Combination of fructose and glucose
Fruit	Sucrose and individual fructose and glucose

Equality of sucrose, glucose and fructose, adapted from p.12 of 1991 "Ingredients" booklet.

## Sources

- Center for Food and Nutrition Policy, Virginia Tech, Ceres® Workshop on the Highs and Lows of High Fructose Corn Syrup. May 10, 2004. [http://www.ceresnet.org/images/Misc/HFCS\\_Executive\\_Summary.pdf](http://www.ceresnet.org/images/Misc/HFCS_Executive_Summary.pdf)
- National Soft Drink Association, Statement: No scientific evidence to link obesity and HFCS; culprits are too many calories and not enough exercise. March 2004. <http://www.nsd.org>
- Melanson KJ, et al. Similar effects of high fructose corn syrup and sucrose consumption on circulating levels of glucose, leptin, insulin and ghrelin. *FASEB Journal*, 20(4): A593, 2006.