

How Sweet It Is...High Fructose Corn Syrup?

You've heard the warnings in the media – high fructose corn syrup (HFCS) makes you fat...and may even be bad for your heart and increase your children's risk of diabetes! But have you seen the recent commercials by the Corn Refiners Association touting HFCS as Mother Nature's healthy sweetener? What's the smart consumer to do? Here's a little explanation:

HFCS has become a common ingredient in US foods because in addition to its sweet taste, it enhances flavors, textures, moisture-control, and shelf-life of many products. In addition, farm subsidies make this sweetener cheaper to use than sugar. So what's the difference between HFCS and regular table sugar? Table sugar, or sucrose, is made up of 2 chemical sugar units in a 50:50 ratio; fructose and glucose. HFCS is a combination of the same sugars, but in a different ratio; either 42:58, or 55:45, fructose to glucose. It's made from corn starch that is chemically altered using enzymes, so technically it's natural, but it's not something you'd find in grandma's garden.

It's well documented that obesity rates have skyrocketed in the past 3 decades. The causes of this are still unclear, and appear to be complex and multi-faceted. Researchers noted that as more and more Americans were becoming heavier and heavier, their intakes of HFCS (mostly from soda) were increasing too. But since sucrose, glucose, and fructose all have the same number of calories, it's not likely that HFCS was the sole culprit for the obesity epidemic. It's more likely that Americans were getting fatter because they were eating more CALORIES from all sources, including sweetened beverages like soda!

Some of the confusion about the dangers of HFCS may have arisen out of misinterpretation of research on the metabolic effects of pure fructose. While pure fructose is indeed metabolized differently than sucrose, the high levels of fructose in these studies are not found in the normal human diet. Additionally, although HFCS is named "high fructose", it's nowhere near "pure fructose". As mentioned previously, HFCS is either 42% or 55% fructose....the rest is glucose. Table sugar (sucrose), breaks apart into glucose and fructose units to be absorbed into the blood stream...as does HFCS. Once these 2 sweeteners are in the blood stream, they are virtually indistinguishable.

Some of the obesity-related claims against HFCS have suggested that HFCS is metabolized differently than sucrose. They've claimed that HFCS has negative influences on blood sugar levels, insulin, leptin, and ghrelin, and feelings of fullness. While the research continues, most recent results are alleviating our fears about the dangers of HFCS. Studies comparing HFCS and sucrose have found no significant differences in fasting blood sugar levels, insulin, leptin and ghrelin, nor have they found significant differences in appetite, feelings of fullness, or short-term intake of calories. But more studies are necessary and underway.

The researchers that published some convincing research about the potential hazards of HFCS back in 2004 aren't sure that HFCS is the unique cause of America's obesity problem. The authors note that their research was conducted to put forth a theory and to inspire more research. Today, many scientific experts now agree that HFCS and sucrose produce very similar effects on human metabolic responses. In fact, the American Medical Association announced at its policy

meeting this past summer that HFCS “does not appear to contribute more to obesity than other caloric sweeteners”.

So what's the bottom line? Let the research continue. HFCS doesn't appear to be an evil fattening poison, but that certainly doesn't mean that its presence in soda is “good for you”. Keep in mind that many beverages and processed foods that contain HFCS and other added sweeteners are often high in calories and low in nutritional value. Eating too much of this highly processed, sweet stuff can promote obesity, which in turn can lead to diabetes and heart disease. Check the ingredient lists of your favorite foods...look for brands without added sugars (added sugars often end in 'ose', like sucrose, maltose, fructose, etc). Note that ingredients are listed by weight...so the further down the list you see HFCS, the less there is of it. So...lay off the sodas; HFCS or not, they're not doing anything good for your body. But at this point, there's no need to panic if you notice that some HFCS has been added to your ketchup or spaghetti sauce.