

Beware of the Dangers of Fructose

The dangers of fructose are not as well known as sucrose (table sugar) or maybe even aspartame because it may not be as high profile. An even bigger reason is that fructose is associated with fruit. We all know that we should be eating more fruits and vegetables.

Fructose is a fruit sugar. Fruit is composed of varying amounts of fructose, sucrose, and glucose. Sucrose which is ordinary table sugar breaks down into glucose and fructose upon digestion. Glucose, also known as dextrose, is blood sugar.

The glycemic index for fructose is low (19.) For glucose it is high (96.) Because of its very low glycemic index, fructose has no negative impact on blood sugar. But it is dangerous in other ways.

Commercially produced fructose is not the same as the natural fructose found in fruits. Excessive fructose consumption has been found to lead to insulin resistance, high blood pressure, and high triglyceride (chemical form of fat) levels.

Researchers at the University of California at Davis (UCD) did a fructose study. They wanted to assess the risk of heart disease in 23 overweight adults ages 43 to 70 years old. The results were that the fructose group saw their insulin sensitivity decrease and their low density lipoprotein (LDL) cholesterol rise.

And to add insult to injury, the study subjects gained an average of 3 pounds. The glucose group were not similarly affected. This study epitomizes the dangers of fructose.

A fall in insulin sensitivity can lead to prediabetes, and prediabetes can lead to full-blown diabetes. The opposite of insulin sensitivity is insulin resistance. The more sensitive a person is to insulin, the better. LDL cholesterol is the bad cholesterol.

Fructose, high fructose corn syrup (HFCS) and crystalline fructose are all equally dangerous. John Yudkin, MD., PhD., professor emeritus at Queen Elizabeth College in London, England said this, "people should avoid it (fructose.)" Dr. Yudkin is also an expert on the health effects of sugar.

Although the consumption of sucrose has gone down, the consumption of fructose and high fructose corn syrup has steadily increased. They are much cheaper to produce than processing cane sugar or beet sugar. Sugar is hidden in countless commercial products.

The use of fructose as a commercial sweetener dates back to the late 60s and early 70s. The Finnish Sugar Company was the first to develop a method of synthesizing fructose from cane and beet sugar and some vegetables.

It has also been determined that fructose interferes with the body's absorption of copper. This trace element is necessary for the production of hemoglobin in red blood cells. This makes the

dangers of fructose even more critical. Return to Weight Loss Lifestyle From Dangers of Fructose

High Fructose Corn Syrup

High Fructose Corn Syrup (HFCS) is a dangerous food ingredient made by treating a large quantity of glucose (a sugar) with an enzyme that changes part of the glucose into a much sweeter fructose. HFCS is cheaper than cane sugar and it is inexpensively produced.

The American government spends billions of dollars per year subsidizing corn production from which HFCS is made. Without the fiber and other natural nutrients of fruit and vegetables, HFCS is rapidly absorbed into the bloodstream.

Food manufacturers began using this dangerous food ingredient in the 1970s. Before then almost all of our sugar came from sugar beets or sugar cane. But manufacturers found out that deriving sugar from corn, especially HFCS, is much cheaper.

The per capita use of HFCS in 1970 was ½ pound. By 1997 the average American use of HFCS was an astounding 97 grams per day! This equates to 78 pounds per year! Today its use has increased tremendously, contributing to this country's rising obesity epidemic. A study published in the 2004 issue of the American Journal of Clinical Nutrition says that the consumption of HFCS increased 1000% from 1970 to 1990!

The product which contains the greatest number of grams of HFCS is soft drinks. It is also found in candy, ice cream, frozen yogurt, Popsicles, fruit bars, ketchup, pasta sauce, soups, and hamburger buns (this list is by no means exhaustive!)

When food manufacturers first began using HFCS, they didn't realize its negative impact on the body. It has no nutrients (it is devoid of enzymes, vitamins, and minerals.) It also leeches micronutrients from the body. That was then. But since then food manufacturers have discovered that HFCS not only make consumers fat, but it also increases their hunger tremendously.

How does it do that? HFCS does not cause the protein leptin to be released to signal the brain that your stomach is full. At the same time it doesn't suppress ghrelin, the substance that tells you that you are hungry. The result? You continue to eat. HFCS is the food and beverage manufacturers' dream come true!

A research team tested eleven different sodas containing high fructose corn syrup (HFCS) and found that they each had high levels of carbonyls. Carbonyls are found in the blood of diabetics. They are thought to cause tissue damage, and play a part in complications associated with diabetes.

Test results also show that one can of soda has 5 times as many carbonyls as diabetics have!

High fructose corn syrup is hidden by food and beverage manufacturers under many names.

Some of these names are: chicory, inulin, iso glucose, glucose-fructose syrup, and fruit fructose.

In a 24 year time span, from 1977 to 2001, America's consumption of sweetened drinks containing HFCS shot up by 135%! A study was conducted by the University of California at Davis to find out the results of HFCS on two groups of overweight and obese individuals. Both groups were told to eat as they normally do. They also were told to drink three specially prepared beverages a day. One group was given beverages sweetened with glucose. The other was given beverages sweetened with fructose but with the identical number of calories as the glucose-sweetened drinks.

According to Kimber Stanhope, MS, RD, lead author of the study, "...the fructose subjects gained intra-abdominal fat (in the area around the abdominal cavity), whereas the glucose subjects did not."

This study included a post-prandial measurement (triglycerides were measured after eating.) The fructose group had double the levels of post-prandial triglycerides. The fructose group experienced a decrease in post-prandial triglycerides. "Within just two weeks, the overweight men and women in the study who were assigned to drink the fructose-sweetened beverages had developed more adverse lipid profiles" (Kimber Stanhope.)

Crystalline Fructose

Crystalline fructose is produced by allowing the fructose to crystallize from a fructose-enriched corn syrup. Crystalline fructose is even more dangerous than high fructose corn syrup because it contains 99.5 percent fructose assay. This is a higher percentage of fructose than what high fructose corn syrup has. The crystalline form of fructose also contains heavy metals, arsenic, lead, and chloride.

Dr. Joseph Mercola calls crystalline fructose a high octane form of high fructose corn syrup. According to Dr. Andrew Weil, "Your body doesn't handle large amounts of fructose well. You can maintain life with intravenous glucose, but not with intravenous fructose; severe derangement of liver function results. There is also evidence that a high intake of fructose elevates levels of circulating fats (serum triglycerides), increasing the risk of heart disease. I never use fructose in my home.

There is currently on the market a product named Vitaminwater which contains crystalline fructose. Despite its name, this and all other products containing crystalline fructose and HFCS should be avoided.