

# The Truth About High Fructose Corn Syrup

## Lyle Loughry November 2008

By now you're probably familiar with the advertisements claiming that high fructose corn syrup (HFCS) is "no worse for you than sugar," or "is just like sugar." One of the most recent ads (Jan 2009) shows two young men, portrayed as brothers, discussing the high fructose corn syrup in the younger ones cereal. His more aware "older" brother cautions him about the danger, and the younger one responds with, "what's wrong with it?" The older brother seems stumped for an answer, and the younger brother says, "Because its made from sugar?" The dishonest "pitch" that follows can be heard over the two young men, awkwardly staring at one another, and the clear inference is that anyone who believes that high fructose corn syrup is bad is stupid. Don't you believe it!

According to the Corn Refiners Association, high-fructose corn syrup contains the same amount of calories as cane and beet sugar, is metabolized by the body the same way as these sweeteners are, and is an all-natural product. High-fructose corn syrup is indeed similar to cane sugar in that it is about 50 percent fructose and 50 percent glucose, but definitely not "all-natural." It could be all-natural, **if (now follow this, closely)**, cornstarch happened to fall into a vat of *alpha-amylase* (a salivary enzyme which hydrolyzes starch to dextrins, maltose, and maltotriose), soak there for a while, then trickle into another vat of *glucoamylase* (an enzyme that breaks down carbohydrates, specifically polysaccharides), get strained to remove the *Aspergillus fungus* (a fungus of the genus *Aspergillus*, one of the most common *Aspergillus* species to cause disease in immuno-compromised individuals), likely growing on top, and then, finally, find its way into some industrial-grade *D-xylose isomerase* (an enzyme that participates in pentose and glucuronate interconversions and fructose and mannose metabolism. It is used industrially to convert glucose to fructose in the manufacture of high-fructose corn syrup.)

In their current ad campaign, the Corn Refiners Association insists that high-fructose corn syrup is just like honey, which is made by enzymes in a bee's abdomen -- as opposed to the enzymes and acids in centrifuges, ion exchange columns and liquid chromatographers used to make high-fructose corn syrup.

What gets me about this campaign run by the Corn Refiners Association, is this: What decent food product has ever needed to spend up to \$30 million to convince consumers its inherently safe to eat? The mere fact that these ads are defending corn syrup as a natural, healthy, and safe sweetener should be a tip-off to everyone that something is missing from the picture.

Where are the ads defending the use of sugar? Where are the ads defending salt? Both of these have obvious health ramifications if consumed in excess, but no one has ever needed to spend millions to convince you they're no worse than something else, and that its okay to keep consuming them.

### **The Truth about High Fructose Corn Syrup:**

The truth is, scientists have linked the rising DFCS consumption to the epidemics of obesity, diabetes, and metabolic syndrome in the U.S., and medical researchers have pinpointed various health dangers associated with the consumption of HFCS, compared to regular sugar. This is why the corn industry is now scrambling to save face and profits - NOT because its *really okay* to consume an average of 59 pounds a year of this stuff.

The American Medical Association (AMA) issued a statement on June 17, 2008, stating that "high-fructose syrup does not appear to contribute more to obesity than other caloric sweeteners." However, they also recommend you limit the amount of ALL added caloric sweeteners to no more than 32 grams of sugar daily, which, by the way, comes out to just over 25.5 pounds of sugar per year. The AMA's recommendation is **over five-and-a-half-times less** than the current yearly sugar consumption of the average American - which currently weighs in around 142 pounds a year, and you wonder why America has a diabetes epidemic.

Their evaluation that HFCS is not a major contributor to obesity is puzzling, considering the fact that the number one source of calories in America is soda, which contains about 40 grams of HFCS per can - more than the AMA's recommended daily maximum for ALL caloric sweeteners. And that's without adding in all the corn syrup now found in every type of processed, prepackaged food you can think of. In fact, the use of high fructose corn syrup in the U.S. diet increased a staggering **10,673 percent** between 1970 and 2005, according to the latest **USDA Dietary**

**Assessment of Major Trends in U.S. Food Consumption** report (whereas sucrose consumption declined by 38 percent), far exceeding changes in intake of any other food or food group.

And what kind of food accounts for more than **90 percent** of the money Americans spend on their meals? You guessed it: processed food. All in all, according to the USDA's report, about one-quarter of the calories consumed by the average American is in the form of added sugars - the majority of which come from high fructose corn syrup. **Folks, this is a prescription for disaster.**

### **Why High Fructose Corn Syrup IS Worse For You than Sugar:**

If you need to lose weight, or if you want to avoid diabetes and heart disease, fructose is one type of sugar you'll want to avoid, particularly in the form of high-fructose corn syrup. Part of what makes HFCS such an unhealthy product is that it is metabolized to fat in your body far more rapidly than any other sugar.

According to Dr. Elizabeth Parks, associate professor of clinical nutrition at UT Southwestern Medical Center, and lead author of a recent study on fructose in the **Journal of Nutrition**: *"Our study shows for the first time the surprising speed with which humans make body fat from fructose. Once you start the process of fat synthesis from fructose, it's hard to slow it down. The bottom line of this study is that fructose very quickly gets made into fat in the body."* How does this happen?

Well, most fats are formed in your liver, and when sugar enters your liver, it decides whether to store it, burn it or turn it into fat. Fructose, however, bypasses this process and turns full speed ahead into fat.

*"It's basically sneaking into the rock concert through the fence,"* Dr. Parks said in a previous interview with **Science Daily**. *"It's a less-controlled movement of fructose through these pathways that causes it to contribute to greater triglyceride (i.e. fat) synthesis."* Ironically, the very products that most people rely on to lose weight -- low-fat diet foods-- are often those that contain the most fructose! Even "natural" diet foods often contain fructose as a sweetener. You're looking at a classic case of deception. Don't be suckered by vested interests promoting this dangerous component found in many of the products you buy and consume, to your detriment.