

## Six Reasons Why Corn is Making You Fat

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with Rachael Droege**

You may already be familiar with the dangers of fructose that I've warned about in the past, but what you may not know is that high-fructose corn sweeteners that have been used to sweeten soft drinks and food since the 1970s are major contributors to the obesity epidemic in the United States.

The lead article of the April 2004 American Journal of Clinical Nutrition features this issue and the researchers say consumption of high-fructose corn sweeteners increased more than 1,000 percent between 1970 and 1990, far exceeding changes in intake of any other food or food group.

Food and beverage manufacturers began switching their sweeteners from sucrose (table sugar) to corn syrup in the 1970s when they discovered that high-fructose corn syrup (HFCS) was not only cheaper to make, it was also much sweeter (processed fructose is nearly 20 times sweeter than table sugar), and this switch has drastically altered the American diet.

In 1966, sucrose made up 86 percent of sweeteners. Today, 55 percent of sweeteners used are made from corn. And while people ate no high-fructose corn syrup in 1966, they ate close to 63 pounds each in 2001.

### **HFCS, which is made from cornstarch, is now used to sweeten:**

- Soft drinks
- Fruit juices
- Baked goods
- Canned fruits
- Dairy products
- Cookies
- Gum
- Jams and jellies

It contains similar amounts of both fructose and glucose, whereas sucrose is a larger sugar molecule that is metabolized in the intestine into glucose and fructose.

HFCS is the only caloric sweetener in U.S. soft drinks and over 60 percent of the calories in apple juice, which is used as a base for many fruit drinks, come from fructose. The primary source of HFCS in the American diet is soda and juice--about two-thirds of all fructose consumed in the United States is in beverages.

Researchers estimated that Americans eat 132 calories of HFCS while the top 20 percent of sweetener consumers eat over 300. And some, they say, eat as much as 700 calories per day of HFCS.

So what makes corn syrup such an unhealthy, fat-promoting product?

### **Fructose is Metabolized to Fat**

The digestive and absorptive processes for glucose and fructose are different. Unlike glucose, which the body uses, when one consumes large amounts of fructose it is a relatively unregulated source of fuel for the liver to convert to fat and cholesterol. Fructose converts to fat more than any other sugar. It is also known to raise triglycerides significantly.

### **Most Fructose is Consumed as a Liquid**

The fact that most fructose is consumed in a liquid form significantly magnifies its negative metabolic effects. The devastation it has on our biology would be significantly lessened if it were consumed in solid food, but as I mentioned above, most fructose is consumed in soft drinks and fruit juices.

### **Fructose Does Not Stimulate Insulin Secretion**

In addition, unlike glucose, fructose does not stimulate insulin secretion or enhance leptin, a hormone thought to be involved in appetite regulation, production. Because insulin and leptin act as key signals in regulating how much food you eat and body weight, this suggests that dietary fructose may contribute to increased food intake and weight gain.

### **Fructose Has no Enzymes, Vitamins or Minerals**

Fructose has no enzymes, vitamins or minerals so it takes micronutrients from the body while it assimilates itself for use. However, eating a small piece of whole fruit, which contains natural fructose, is not likely to be a problem for most people because fresh fruits contain the enzymes, vitamins and minerals that are needed for the fructose to assimilate in the body.

### **Corn is a Grain, Not a Vegetable**

Contrary to common belief, corn is a grain, not a vegetable, and is definitely not fit as a dietary staple and mainstay, primarily because it contains high amounts of sugar. When early Native Americans changed their diet to one based mostly on corn, they had increased rates of the following:

- Anemia
- Dental cavities
- Osteoarthritis

- Bone infections and other bone problems

### **Corn is Everywhere in the American Diet**

Corn, and usually highly processed corn, has become a staple ingredient of the American diet. Cheap corn is truly the building block of the "fast-food nation," as Michael Pollan writes in a New York Times article.

Not only is it in HFCS, but animals raised for meat are often fed corn and other grains. Most meat in supermarkets comes from grain-fed animals. On the contrary, grain free meats not only provide a better balance of omega fats, but also the animals are healthier and more humanely raised, and the risk of acquiring an infection from a healthy animal is very remote.

### **What You Can Do**

Genetic factors clearly play an important role in the development of obesity. However, the rapidity with which the current epidemic of obesity has hit the United States and the rest of the world makes diet and lifestyle a more likely explanation.

So the answer is plain and simple. If you want to lose weight stop drinking soda and processed fruit juices that are sweetened with about eight teaspoons of fructose per serving. I have made many difficult recommendations to patients in their quest to achieve health, but one of the simplest is to stop drinking soda. There is never any reason to drink it and it is one of the easiest foods to give up. Switch to pure water as your beverage of choice and you will be well on your way to better health.