

Fructose/ Sucrose

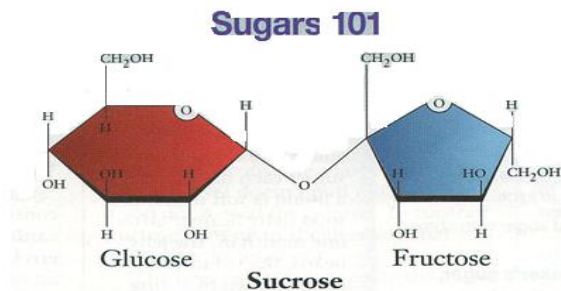


THE DEADLY TOXIN

By Sally Jackson RN, CLNC, CPT, Pt. Adv.

Glucose is the 'food of life', the true energy you were designed to run on. Every cell in your body, in fact, every living thing on the Earth, uses glucose for energy.

Fructose is not the same molecule. Glucose is a 6-member ring, but fructose is a 5-member ring. Sucrose (table sugar) is 50 percent glucose and 50 percent fructose, while HFCS is 42 percent glucose and 55 percent fructose.



If you received your fructose only from vegetables and fruits as whole foods, as most people did a century ago, you'd consume about 15 grams per day. Today the average is 73 grams per day which is nearly 500 percent higher, a dose the human body simply cannot tolerate, such intolerance, over time results in acute toxicity and multiple diseases.

Before we learn about fructose we need to know how glucose affects the body and how we develop diabetes.

Many people find it difficult to understand the mechanics involved in the development of diabetes. In fact the concept of diabetes and the roll- played by insulin has been misunderstood for the past 50 years. Quite frankly type - 2 diabetes is NOT a "sugar disease". Rather it is quite simply a disease of miscommunications, the end result of insulin resistance and faulty leptin signaling otherwise known as leptin resistance. Contrary to popular belief, insulin does not directly lower the blood sugar. Instead,

insulin is secreted by the pancreas (a gland controlled by the liver) which converts carbohydrates (glucose) into usable forms of energy called 'glycogen' which is the ready-to-use form of energy for the body. Once converted, the glycogen is utilized by all cells with any excess glycogen (that not needed for immediate tissue function) absorbed and stored by fat cells as saturated fat which is 98% Palmitic acid. The blood sugar levels slowly decrease as the glycogen is absorbed by the cells. The presence of insulin also signals the secretion of leptin, an appetite suppressant hormone, produced by the fat cells, which stimulates the hypothalamus of the brain, which in turn produces ghrelin, the hormone that tells the stomach it's full. The presence of ghrelin causes a reduction in the storage of fats as it decreases hunger.

Modern medicine discusses diabetes in forms of insulin resistance and leptin resistance. It has been noted that; when type – 2 diabetes is treated with the drug insulin, the pancreas will decrease in function and eventually shut down completely, this is known as insulin dependence. With the loss of natural insulin formation, causing an increase in leptin resistance ultimately resulting in increased hunger, and an increase in fat storage.

Oh my, that is very confusing! It's better understood if you look at it from a different prospective.

The best correlation can be found in drug addiction. The body reacts to narcotics (addictive drugs) with an expected response of euphoria or physiologic high. Over time multiple increases in the drugs dosage is required to produce or achieve that same euphoria or high, this is called drug resistance. This progression continues until the body can no longer 'tolerate' the drug, with chemical multiple reactions and detoxification via the liver. Simply stated; the liver is fatigued or over taxed, it ceases to function, resulting in drug overdose.

In diabetes the pancreas produces insulin to convert increasing amounts of blood sugar provided by the diet (carbohydrates). This process is repeated every 4 hours (with each meal) with each repeated spike in blood glucose the body utilizes only that which it needs to maintain cellular function and muscle activity at that time (over the next 2 to 4 hours) and the remaining glycogen is absorbed by fat cells (the sponges; like packman, it gobbles up the leftovers and grows bigger). Multiple elevated insulin levels cause maximum leptin production (repeated or continuous high levels of leptin) resulting in leptin resistance. The signal 'burns out', think in terms of too much wattage to a light bulb, an overwhelmed and fatigued hypothalamus ceases to respond. When the response to leptin from the hypothalamus is gone then ghrelin cannot be produced and food hunger remains, feeding this vicious cycle we eat more. If blood sugar levels remain high then the demand for increasing insulin will result, this is called insulin resistance. This continues to escalate much the same as drug addiction, until the pancreas can no longer meet the demand and ceases to function (repeated maximum

insulin production with pancreatic fatigue; again too much wattage to that light bulb), resulting in uncontrolled blood sugar levels otherwise known as diabetes.

In short; any sugars (this includes all carbohydrates) in excess of the bodies essential needs for maintenance of body weight and function will; drive up the need for insulin (insulin spikes) and the leptin response, increase the total body fat stores and like a chain reaction, overload the pancreas and eventually result in diabetes.

But the story doesn't end here.

You have read my statements about Fructose, now you will see why Fructose (also known as sucrose) is a deadly toxin to the body. Fructose is a natural fruit and grain sugar. When we eat whole fruit we get fiber and we also get an enzyme (quercetin) contained in the fruit that chemically attaches itself to the fructose during digestion and along with the fiber this prevents most of its absorption into the body, and as a result our body gets very few fructose molecules. But when we make juices, or extract the juice from the pulp of the fruit we destroy that enzyme and the fiber, leading to higher fructose consumption. To top everything off, the food industry now uses a super concentration of fructose molecules known as high fructose corn syrup, also known as corn sugar, corn syrup and sucrose as concentrated forms of cane sugar or cane syrup. And recently a new version has been added, called crystalline fructose, which is 99.5 percent fructose, two times the level of HFCS. Any one of these forms of fructose, and even combinations of these forms are found in almost every food on the market, not just in soft drinks, but in everything; from cereal to breads and almost all processed foods.

“No HFCS PLEASE”



And you say; why is fructose so bad?

Unlike other sugars, the body does not process Fructose with insulin. Fructose is filtered and only processed by the by the liver and this metabolism will drive up insulin levels.

The liver produces several byproducts from HFCS or Sucrose that eventually results in obesity (increased belly fat), heart disease, kidney disease and even diabetes. Modern Medicine describes the combination of these diseases as metabolic syndrome. This syndrome is also described by Dr. Marc Tahiliani ND., noted alternative medicine nutritionist and anti-aging physician, simply stated; as Syndrome X.

For each molecule of Fructose that enters the liver, one very small, low density lipoprotein (VLDL) is produced. This is a main contributor to a form of cardiac disease

known as hardening of the arteries and the formation of plaque. Now multiply this hundreds of times over, since the HFCS is a very dense multi - chained molecule, and over a prolonged period of time, this will result in Cardiac Disease. **So you want to lower your LDL Cholesterol and avoid cardiac disease? Get rid of the fructose!**

The second by-product is Uric Acid; an increase in the total body uric acid will cause an inflammatory response otherwise known as Gout. Uric acid will also increase the pressure in the peripheral arteries, by blocking the formation of nitric oxide which keeps blood vessels soft. Non-elastic or hardened arteries results in Hypertension (high blood pressure), which is another form of heart disease and that pressure causes eventual damage to the kidneys. Today's doctors are hearing about the connection between fructose and uric acid levels, which by studies appear to have a direct connection to elevated blood pressure, obesity, T2 Diabetes and heart disease. A few physicians in the Alternative medicine field have started using serum uric acid levels as a marker for Fructose Toxicity and the resulting metabolic syndrome or syndrome X. **So now if you want to lower your blood pressure, lower your LDL cholesterol, and improve your cardiac health. Get rid of the fructose!!**

And the third by-product is glycogen (not converted by insulin), which is pushed out of the liver into the tissues surrounding the liver and other vital organs. Keep in mind that while fructose is being processed, the body has already consumed the needed glycogen that was converted by insulin. As a result literally all of the glycogen produced by the liver goes straight to storage. And this storage is different, because it is absorbed by the fat cells surrounding the liver and your other vital organs, thus literally creating your 'spare tire' otherwise known as belly fat. And over a prolonged period of time the consumption of HFCS or Sucrose will cause fatty liver disease, a disease; that 50 years ago was only seen in alcoholics. Today we see increasing cases of fatty liver disease in children as young as 6 months old. And the 'final straw on the camel's back'; fructose causes browning of fat and brown fat is the most difficult fat to break down and lose. So now when you ask; where does Belly Fat come from -- here's your answer. **And if you want to lose that belly fat, get rid of the fructose!!!**

As noted by Dr Richard Johnson, Leading researcher and chief of the division of kidney disease and hypertension studies at the University of Colorado. "Recent studies in Mexico City involving low fructose diets in relation to obesity in adults, found that the calories in sugars is not the driving mechanism in obesity, but rather the production of uric acid and its chain reaction into metabolic syndrome." This means; it is not the calories of sugar, but rather the type of sugar "Fructose" that is driving the obesity epidemic.

Now we have three good reasons why we should never consume excess fructose, HFCS, or Sucrose; also known as Corn Sugar, Corn Syrup, Concentrated Cane Sugar and Cane Syrup. And now we can super-accelerate the development of metabolic

syndrome or syndrome X with the addition of crystalline fructose. It's like ingesting fructose on Steroids; 99.5% Fructose.

What makes the problem even more urgent is the fact that we are now seeing children as young as 6 months old who are suffering from fatty liver disease. Yes, we are feeding our new born children large quantities of fructose in formulas. Virtually every formula on the market today is 50 percent sugar (10.4% Sucrose). For this reason alone I only recommend breast feeding of children for the first 6 months of life and move straight to raw milk (unpasteurized) from there.

But wait, there's more!

Remember when I said that Ghrelin is the hormone that tells the stomach that it's no longer hungry? It has now been discovered that there are two ways to block the leptin signal to the hypothalamus and prevent the formation of ghrelin. The first is over stimulation of the hypothalamus (the light bulb effect) and the second is an over abundance of insulin in the brain itself, blocking the hypothalamus receptors.

Remember that HFCS / Sucrose, causes a direct increase in insulin production, but there are no carbohydrates or sugars for the insulin to attach to and convert to glycogen. So this insulin floats through the circulating system accumulating in the brain and blocking leptin receptors in the hypothalamus, as a result hunger increases, and the vicious pattern of eat – eat – eat continues.

Let's step back and recap for one moment. Why is Fructose/ Sucrose bad?

According to the Center for Disease Control, currently (2011) one out of every 4 American adults has diabetes or a pre-diabetes diagnosis, it is a precursor to most other diseases and a rise in diabetes will drive all other disease rates up. It is believed that the number of diabetics in this country will double in the next 40 years. But with the advent of crystalline fructose it may only take 20 years. I truly feel that Fructose/Sucrose, otherwise known as HFCS, Corn Syrup, sucrose (concentrated forms of cane sugar) and Corn sugar is the number one cause of obesity, diabetes, various forms of heart disease including hypertension (high blood pressure), renal disease as well as other obesity related illnesses in this country. **If we eliminate the cause, control our diet, drive down cravings and control our eating habits, we could drastically reduce these diseases in ourselves and this country. Does this make sense to you?? So read your labels and get rid of the Fructose!!!**



How to Detox from Sugar

There are those who claim that dieting and weight loss is sheer will power. But nothing could be further from the truth. Anyone can lose weight and return their body to a healthy state. If you have read the article; Fructose / Sucrose THE DEADLY TOXIN, then you now understand the chain reaction that is created with persistent insulin spikes and results in the increased drive to eat. And over an extended period of time results in obesity, diabetes and a wide variety of debilitating diseases, otherwise known as Metabolic Syndrome, or Syndrome X.

Every time we attempt to lose weight, we are plagued with those cravings that are created by persistent insulin spikes. And since we do not remove the toxins and damaging foods from our diet, when the cravings strike, we simply reach for a power bar, whey protein bar or a sugar laden energy drink, or other 'health food' product that contains fructose or other ingredients that drive up our insulin levels and all dieting efforts are lost. This is also known as Yo-Yo Dieting.

The secret is; to satisfy those cravings, and drive down the insulin that blocks the ghrelin response at the same time. During this time (while losing weight) you exchange those processed foods and high glycemic index carbohydrates with whole, fresh organic fruits, vegetables and meats, thus ending the yo-yo diet.

OK; how do I do that? ----- Simple; Eat Chocolate.

Yes, I said eat chocolate; Pure Trim Chocolate Truffles; A marvelous, safe effective, natural appetite suppressant which contains; 12 Mediterranean herbal ingredients; like organic thyme, organic pomegranate, organic milk thistle, organic sage, and much more. All wrapped in delicious chocolate and found in the Mediterranean Wellness System. At first you may need as many as 4 truffles to keep those afternoon and late night cravings at bay. But over time as the weight comes off, your body will begin to naturally normalize your blood insulin levels and you will eventually only need one truffle to knock out lingering late night cravings.

And when it comes to liquids, drink water filtered by reverse osmosis. Just water, the more you drink, the easier it will be to lose every pound that you want to lose.

Remember you need to drink one half your body weight (in pounds), in ounces of water daily. Conversely, there is such a thing as drinking too much water, so stick to the guidelines. If you weigh 100 pounds, you need 50 ounces of water daily. Keep in mind that while you are eliminating those cravings, you also need to eliminate those high glycemic index carbohydrates (fructose) and processed foods from your daily diet (READ YOUR LABELS), or the cravings will return.

For those of you who ask; what about artificial sugars? Almost all artificial sugars drive up the insulin response. A healthy meal should contain less than one gram of sugar, so if you must, use stevia in small quantities. This is the only natural sweetener that has been shown to have no side effects on the body. For those who insist on splenda (sucralose), this is artificial sweetener that will lower your healthy probiotic population in your intestinal tract, so use it in very small amounts (never give it to children) and increase your consumption of probiotics. I cannot recommend any other forms of artificial sweeteners due to their high toxicity. Natural sugars such as honey (raw organic) or pure 100% Maple Syrup do contain fructose, so they should be used in very small quantities.

For those of you who are addicted to soft drinks or flavored drinks of any kind, you will need a little bit of will power and a few more chocolate truffles, while you remove all of those sweetened drinks from your home. With any addiction, be it solid or liquid, the old adage “out of sight, out of mind” WORKS!!

What about children? Pediatric obesity is now an epidemic in this country. If your children are over- weight or obese, then they too need to remove the sugars from their diet. I strongly believe in the dietary recommendations made by Dr. Robert Lustig Professor of Pediatrics, Division of Endocrinology, University of California, at San Francisco. In his pediatric obesity clinic, he provides the answer, simple, straight forward and easy to do. First no sweetened drinks of any kind, only water and milk (preferably raw milk, to prevent allergy formations and asthma). Second eat all carbohydrates with fiber (preferably all vegetable carbohydrates, no refined grains) and fiber with protein (beans). Third, children as well as adults should wait twenty minutes for second portions (by that time, second portions are not needed). And Finally, Children (as well as adults) should buy their screen time minute for minute with physical activity. I highly recommend these guidelines for all children, regardless of what they weight. And please remember, vitamins should come from vegetables (6 to 8 per day), not pills, especially gummy pills (50% sugar).

And finally, **for those adults who want to lose more than 5 to 10 pounds** I highly recommend The Pure Trim Mediterranean Wellness System; an extremely effective weight loss and maintenance system that gives the body complete nutrition from all natural vegetable food sources, no synthetics, no toxins, no dairy, no soy, no whey, no

aspartame, no fructose or other ingredients that drive up insulin levels and destroy all weight loss efforts. Lose as much weight as you want in a short period of time and still maintain total body health. The entire product line can be found in the merchandise catalog or My Favorites.

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