

# **SUGAR ADDICTION**

By Lawrence Wilson, MD

© October 2007, LD Wilson Consultants, Inc.

Do you know anyone who just has to have a Coke, a piece of fruit or a glass of sweet juice or something else sweet? This is sugar addiction.

It might also be a need for a sweet dessert after each meal, or sweetened tea or coffee or even carrot juice. It could also be a strong need for a candy bar or a drink of alcohol, particularly wine or beer, at the end of the day.

Other examples include people who love chocolate, sweetened coffee or tea at Starbucks, peanut butter, sweetened cereal, a donut or sweet roll or just a few raisins periodically during the day.

## **HOW IT WORKS IN THE SHORT TERM**

Without the sweet treat, one may feel tired, light-headed or confused. There may be shaking or weakness that is relieved in a few minutes by eating something sweet.

More extreme symptoms include shaking or tremors, severe headaches, nausea or even vomiting. All this can be part of sugar addiction.

Sugar addiction is probably the most important and widespread type of addiction on planet earth today, and getting worse by the day. It affects many children, especially teenagers, whose lives are chaotic and eating habits poor. It affects millions of adults, who just let it slide because it is so socially acceptable.

However, it leads directly to a host of ailments, from obesity to metabolic syndrome or Syndrome X, and finally often to hypoglycemia and diabetes. Let us examine this common addictive behavior.

## **WHAT IS AN ADDICTION?**

An addiction is anything that one must have in order to avoid a negative feeling or symptom. Also, addictions tend to weaken the body, so that one feels better with the addictive substance or behavior, but the end result is a weakening or greater dysfunction of the person.

Addictions can include almost anything, not just foods, drinks or other physical substances. For example, one may “need” a vacation, a trip to the bathroom every few months, just to “get away”. One must ask, to get away from what?

## **PSYCHOLOGICAL OR EMOTIONAL CAUSES OF ADDICTION**

Often the answer to the question above is boredom, work that is unfulfilling or perhaps an unhappy relationship. One may believe one even “needs” to go to the bathroom, not to relieve oneself but to relax and get away from people.

A very common one is the “need” to email or call a friend, even though it is not about keeping in touch. It is just to avoid loneliness or feeling out of sorts about things. Thus, many people live extremely addictive lifestyles, the majority, by the way, and don’t even realize it because they don’t smoke, gamble or drink alcohol.

For example, your mother, your childhood dentist or someone else may have given you sweets to reward you or to calm you down as a child. This is almost universal. Most parents do not realize how they are setting their dear child up for problems in the future with this reward system.

However, every time this grown-up person eats something sweet he or she recalls what how good one is, and how calm one became eating it as a child. It easily becomes an emotional crutch that unfortunately usually worsens physical aspects of sugar addiction.

Addictions in general is discussed another important article. Click here to read about [Addiction](#). However, the point is most addictions, even sugar, have psychological aspects as well as being physically-caused.

## **CAUSES OF PHYSICAL ADDICTION TO SUGAR**

Sugar, in the form of a substance called glucose, is the basic fuel of the body. Other sugars such as fruit sugar (fructose), milk sugar (maltose) and others can also be broken down in the body to glucose.

Normally, our bodies do not require sweets, however, for food. We eat starches such as rice or bread, potatoes or carrots. We may also eat fats such as butter, eggs, and meats, and even protein foods. All these should be decomposed or broken down if needed into glucose in the digestive system and the liver. The name of this process is glucogenesis.

When a person must eat simple sugars, or even honey or fruit juices on a regular basis, it implies that one cannot or does not want to breakdown complex foods into sugars.

In other words, the craving arises due to the body’s inability to properly digest and utilize other, more complex carbohydrate foods, or fats in amounts sufficient to fuel the body. Therefore, one wants to eat the end product - sugar. This is the mechanism of sugar addiction at the most basic level.

This is as bit like having a clogged fuel system in a car. The normal way that gasoline reaches the engine from the fuel tank is by passing through as series of steps to “process” the gasoline. However, if the fuel system is clogged, gasoline must be

poured directly into the engine without the usual processing, bypassing the usual fuel filter and other steps, or the car will not run.

## **WHY THE BODY'S FUEL SYSTEM DOES NOT WORK**

As in the automobile, sugars in the body must pass through a number of steps in order to be digested, converted, moved into the cells and utilized there for energy production. A blockage anywhere along the fuel conversion process can and does cause sweet cravings. Before discussing the trouble spots or places where blockages occur, here are the basic steps in the body's fuel system.

- 1) Complex carbohydrates or starches, fats and oils and protein foods are eaten.
- 2) Proper digestion actually begins in the mouth, with chewing to disintegrate the food and enzymes in the saliva that begin its chemical digestion.
- 3) Once in the stomach, digestion continues, as does mechanical mixing of the food with hydrochloric acid and other substances such as pepsin, a stomach enzyme that helps digest protein foods.
- 4) As the food passes into the small intestine, it is soon mixed with bile from the liver and pancreatic juices from the pancreas. These further digest the food.
- 5) Now the food is broken down into its basic components. Carbohydrates are broken into sugars, fats and oils into fatty acids and proteins into amino acids. These must be properly absorbed in the lower intestine, mainly, where they flow into the liver and kidneys.
- 6) In the liver, in particular, these may be converted into other fatty acids, cholesterol, amino acids and other necessary nutrients. Sugars may remain in storage in the form of glycogen, or may pass out into the bloodstream. The kidneys filter the material, making sure that harmful chemicals are properly removed.
- 7) Once the nutrients leave the liver and kidneys, they move to the body cells. Here they must pass through the cell membranes and enter the cells. This requires the vital hormone, insulin. Any problem in the insulin mechanism impairs movement of sugars into the cells.
- 8) Once inside the cells, sugars, fatty acids and amino acids enter two energy cycles, called the glycolysis and the Krebs or carboxylic acid cycles. In these, they are finally converted to the form the body actually uses for energy, mainly a substance called adenosine triphosphate or ATP. This completes the process of sugar utilization. As one can see, it involves quite a complex number of steps. Now let us see what happens in people who have a sugar addiction.

## **TROUBLES IN THE FUEL SYSTEM**

There are many possible trouble spots in the body's fuel system. Among the most common are:

**Weak adrenal glands.** This is perhaps the most common problem today. The adrenal glands produce cortisol and cortisone. These are sometimes called the *glucocorticoid hormones*. One of their functions is to regulate the level of glucose in the blood.

If adrenal gland activity is low, blood sugar levels will tend to be too low on a chronic basis. As a result, less sugar than optimal will be available to the body cells and sugar craving is the end result. This sounds simple, and in part it is. One must have adequate adrenal activity or one will crave sweets. This will happen even if one is careful about the diet, lifestyle and everything else in one's life.

The adrenal glands can become weakened or even 'burned out' for numerous reasons. Refer to the article on [Adrenal Burnout Syndrome](#) for much more information about your adrenal glands. For instance, the adrenal glands require vitamins C, E, and B-complex. They also require many minerals such as zinc, manganese and others. Deficiencies in these nutrients is all that is needed to have depleted and sluggish adrenal glands.

**Overactive Adrenal Glands.** Another situation with sugar cravings occurs when the adrenals are overactive. However, this is less common so we will not mention it here. However, it too, can cause intense sugar or alcohol cravings in some young children, for example. It stems from depletion of stored glycogen in the liver and cravings that occur under stress or when one has not eaten in a few hours.

**Impaired Digestion.** Another cause of sweet cravings is poor digestion. Many, if not most people, do not get all the nutrients out of their food. Various causes for this include eating too quickly without chewing, eating when one is anxious which impairs digestion greatly, or enzyme deficiencies in the stomach.

**Intestinal Difficulties.** Intestinal problems are many and may infections such as candida albicans. This is universal in sugar-eating people because sugar feeds the yeast organisms and keeps them healthy and strong. Many other types of infections with bacteria, fungi, parasites and viruses are possible and common, especially if one travels to unclean places or eats unwashed or improperly cooked food.

Another intestinal difficulty is diarrhea due to any number of reasons. Still another cause is a damaged intestinal wall, which can be due to parasites, nutrient deficiencies and other reasons. This may be called a 'leaky gut' or other types of damage occur such as inflammation due to toxic food additives or heavy metals in food or drink. Another difficulty is intestinal atrophy, a more advanced problem that may be diagnosed as malabsorption syndromes such as celiac disease.

Most people actually have a combination of digestive problems, which impairs their utilization of food. As a result, they overeat to get what they need, or they simply crave what they need in the form of sugar because they do not absorb their food and other nutrients adequately.

**Cell Membrane Difficulties.** Getting through the cell membranes is not always so easy for glucose. Numerous problems occur at this level. The most important is difficulties involving insulin, a critical hormone for the process. This is discussed below.

However, two other minor problems will be mentioned. One is decreased cell permeability for any reason. The most common reason is a decrease in fatty acids needed to maintain the cell wall. This can cause deficiencies and is one reason that some Omega-3 fatty acids found in fish oil are often recommended as part of nutritional programs. We no longer eat nearly as many of these since we have switched to seed oils, corn-fed meats and refined foods that have a toxic fat in them called hydrogenated oils or trans-fatty acids.

The other reason is sclerosis or hardening of the cells walls or surrounding tissues, including the blood vessels that supply the tissues. There are many reasons for this, including calcium deposition in the tissues, hardening of the arteries due to diabetes, heart disease due to toxic metals such as cadmium, and others. These are minor, so we will not explore them here. Other articles may discuss them at greater length. However, we will say that these take much longer to reverse and so are one reason why some nutrition programs take longer to correct blood sugar problems.

## **INSULIN PROBLEMS**

Insulin is an amazing hormone. It is in the news because so many people today do not make enough of it, or it does not function correctly in their bodies. Medical scientists call the latter problem “insulin resistance”.

However, it is really inferior insulin that does not work, or mineral deficiencies that interfere with the action of the insulin. These minerals include chromium, zinc, manganese, vanadium and others. Insulin resistance, as it is improperly called, often develops into Type 2 diabetes, an epidemic in America and even in other nations.

Insulin’s action is to move the glucose through the cell walls into the cells. If there is not enough insulin, or even if there is too much insulin, blood sugar is affected. Also, problems arise if the insulin does not work correctly.

**Hypoglycemia.** When there is too much insulin, the condition is called low blood sugar or hypoglycemia. This is very common today. Later, the pancreas becomes depleted of zinc and other micronutrients and insulin quantity or quality declines. Then the blood is literally swimming in sugar, but little reaches the cells. This condition is called diabetes. Let us examine this in more detail.

**Zinc.** Plenty of zinc is required for insulin production and release. Zinc also extends the action of insulin greatly so it does not break down. Here is a clue to “insulin resistance”. Many people are zinc deficient and have toxic levels of copper, iron, lead, mercury or cadmium, minerals which replace zinc in the insulin molecule at times, causing it to malfunction and to be very fragile. This is the main cause of insulin resistance.

**Chromium.** Chromium is needed to help attach insulin to cell walls, so that sugar can pass into the cells. Chromium deficiency is also almost universal in America, due to deficiencies in the food supply, and particularly the widespread eating of white and bleached flour. Whole wheat is much higher in chromium, but is rarely eaten in comparison with white flour products.

**B vitamins** also play an important role in insulin metabolism. Some are needed at various levels of metabolism in order for insulin to function correctly. These are also often deficient if one eats white flour products and little meat, as many vegetarian-oriented people do daily.

**Magnesium and other micronutrients.** Magnesium is another mineral involved in insulin metabolism. It is needed for the enzyme that helps make insulin.

In fact, many more micronutrients including many vitamins are required for insulin production, release and to extend the action of insulin so that it properly regulates the blood sugar level, keeping it always in a tight range around 75-85 mg in 100 milliliters of blood serum at all times. This condition is actually rare in modern society.

Unfortunately, blood laboratories have responded by expanding the range of normal values, instead of insisting that anyone with a fasting glucose level outside of the narrow range should be diagnosed correctly as hypoglycemic or diabetic. Diabetes is addressed in other articles on this website, as it is a very important dietary-related problem today.

## **CELLULAR PROBLEMS**

**The energy cycles.** Assuming the glucose finds its way into the cells in large enough quantity, it must go through the glycolysis cycle and the electron transport system before it can be utilized by the body.

These energy cycles, along with the Krebs or carboxylic acid cycle, which processed fatty acids into sugars, requires many, many nutrients which can be in short supply due to a poor diet, impaired digestion, improper absorption, oxidant damage to the enzymes or other causes.

**Mineral requirements for energy production.** Among the most important minerals, but not the only ones required, are bioavailable copper, manganese, zinc, chromium, selenium, silicon and iron. These must be properly bound to be transported into the cells and utilized, in this case, in the electron transfer system of the Krebs cycle.

If the Krebs energy cycle does not functioning properly, enough energy is not generated and the cells will crave more sugars in an attempt to alleviate the problem.

**Mitochondrial imbalances.** Assuming enough ATP is produced, the next hurdle is to use it or “burn it” properly. This is like combustion in a car engine. Here manganese plays a key role, as does vitamin E and many other nutrients. ATP is burned in structures called the mitochondria. These are little factories that produce cellular proteins and other substances from ATP and many nutrients.

Manganese is critical for mitochondrial function, as are other nutrients. However, deficiency of bioavailable manganese is widespread in the population, again due to dietary deficiencies, toxic metal overload, impaired digestions and the other reasons given above.

**Difficulty With Toxins Exiting The Cells.** Finally, adequate energy production at the cellular level requires that the body be able to eliminate substances such as lactic acid, a byproduct of sugar metabolism. The fatigue that occurs after exercise is due to the body’s inability to rapidly eliminate lactic acid and other metabolic end products fast enough. This is another problem in many people. Their blood and lymph circulation is so sluggish, or their cell membranes in sufficiently electrically charged, that they cannot eliminate well. They, too, may feel fatigued and believe they need a “sugar fix” to help the problem.

## **AN IMBALANCED OXIDATION RATE = LOWERED ENERGY EFFICIENCY**

Before leaving the topic of impaired glucose metabolism (the sum total of all the above processes), let us address the end result in another way. When the body cannot process its food properly, it develops what is called an *imbalanced oxidation rate*. In very simple terms, it means the fuel system works either too fast, too slow, or some mixed up combination of the two.

*Low Fuel Efficiency.* An imbalanced oxidation rate can be said to diminish one’s “fuel efficiency”. We all know about fuel efficiency due to our automobiles. In terms of the body, it means that when the oxidation rate is very sluggish, one does not use food properly to generate much energy. It is like driving a car or bicycle in the wrong gear with the engine turning too slow, or pedaling too slowly. It just does not work well.

As a result, the person feels tired and often apathetic and even depressed, and tends to overeat on sugars and other foods in an attempt to clear up the low oxidation rate.

Some people burn their fuel at a faster than normal rate. These individuals have low reserves of glycogen, a storage fuel, in their liver and muscles. If their diets are inadequate in fats and oils, which are higher calorie foods, they can literally run out of available sugars. When this occurs, a craving for sweets or alcohol will occur. It will eventually also give rise to a large number of common metabolic illnesses and both physical and emotional symptoms. View the article on [The Oxidation Rate](#) for a better explanation of this complex topic.

## **TOXIC METALS AND SUGAR METABOLISM**

Toxic elements such as cadmium, lead, mercury, chlorine, fluorides and copper can block glandular activity. They can also block any of the steps in the energy cycle by replacing an essential mineral in that step of the energy cycle.

The topic of the role of the toxic metals is so large that it is beyond the scope of this article, although it has been touched upon in several places. It is just another reason to guard what one eats and avoid all environmental sources of toxic metals as much as is humanly possible.

I would suggest that it is simply not worth the trouble to travel to faraway places or breathe dirty air. It catches up to even the healthiest people, shortening their lives and causing, in many instances, imbalances and diseases of sugar metabolism.

## **SLAUGHTER OF THE INNOCENTS**

The sugar habit usually starts at a young age. Careless parents assume that children like sweet foods, which is often not the case until they learn the habit from their parents.

Sweets are also usually used as rewards. Most foods marketed as "children's foods" advertised on television are sugar-coated to help sell the product. This is a disgrace and is indecent, as no better word can be found. It sets the children up for a lifetime of illness and disability.

In this manner, advertisers and parents alike cultivate the sweet taste in vulnerable children. They begin to regard it as normal when it is not. The results include attention deficit, learning problems, autism, hyperactivity, infections, brain tumors and a rash of other disorders that are "new" for children, such as depression, obsessive-compulsive disorders, manic-depression or bipolar disorder, random violence and the list goes on.



To add insult to this, even more insidious in many cases it sets the stage for sugar addiction and adult diseases and shortened lives that go with sugar problems.

## ARTIFICIAL SWEETENERS

Many people turn to artificial sweeteners, thinking this will avoid the problems of sugar. This is not only not true, but in some ways can make the problem worse. Nutrasweet, in particular, also called Equal or aspartame, has more side effects than can be listed in one short article. One can check this on the internet.

Even natural sweeteners such as xylitol, manitol and stevia, which are better, keep the sweet craving and taste alive. So we do not recommend these at all.

Studies have shown that people who use Nutrasweet, for example, often will then eat a sugary food as well, easily defeating the value of the low-calorie artificial sweetener.

Once again, avoid the sweet craving problem by not feeding sweets of any kind, including honey or undiluted fruit juice, to yourself or especially to children.

## HOW TO CORRECT SUGAR ADDICTION

The correction of sugar addiction is a long process in most cases. Therefore, we do not want you to be under illusions that cravings for sugar will go away in a few weeks or even in a few years. That is how entrenched the problem is in many people. However, you can look forward to a reduction in cravings that will eventually move you away from this pernicious habit or addictive tendency.

**1) Improve Your Overall Diet. In particular, reduce and if possible avoid all sugars in your diet.** This includes not only table sugar but fructose, corn syrup, dextrose, maltose, beet sugar, corn solids, barley or other malt products, honey, all sweet syrups and even fruit juices. Fruit must be reduced, as it is not helpful in most instances. However, this may take more work to leave alone, especially because there is so much propaganda as to how wonderful fruit is for your health.

***The truth about fruit.*** Fruit is not needed in most cases, and causes far more harm than good in most instances, in our experience. Fruit is mainly sugar and water, with a few vitamins and other phytonutrients. Berries are the best and may be eaten once daily, a few at a time. If you eat a whole container, you are a sugar addict and you are misusing the berries. Beware!

*Improving Your Diet.* Experiment with more protein or more fat in your diet. You will not gain much if any weight if you do this with high-quality foods such as starchy root vegetables (carrots, turnips, parsnips, rutabaga, daikon, etc.)

Also, eat regular meals, five daily if needed. Do not skip meals and take snacks between meals of high-quality protein or fat-rich foods such as egg, nut butter on a rice cracker, turkey or even beef jerky free of chemicals if possible, nuts or seeds, for example.

Eat lots of vegetables, preferably steamed lightly, not just raw. Raw does not supply the nutrients you will need to rebuild. We have written extensively about problems of raw foods elsewhere on this website.

Drink plenty of distilled or spring water. Do not drink tap water, except filtered if you must. Also avoid reverse osmosis water and “drinking water” which are inferior products.

**2) Take supplements to replace and repair the body.** This can take the form of a multivitamin-mineral supplement, or green superfood drink, or best of all is a targeted nutritional balancing program based on a properly performed and interpreted hair tissue mineral analysis. We only recommend people we have trained to do this, and at the time of this writing, I offer this service as well through the mail. For a list of practitioners around the nation, [click here](#).

**3) Take a *relaxed* walk daily and cultivate excellent lifestyle habits.** These include sleeping over 8 hours every single night, learning to relax a lot, loving yourself no matter what so you are not eating out of self-hatred, boredom, aloneness or other psychological causes.

This, too, is a slow process that will take years, but is worth the gentle effort you put in over time. It is a process of learning when and why you crave sugar and other foods or activities, so you can examine your life in light of your new discoveries about yourself and what life is really like.

This is a spiritual quest in the best sense of the word. It does not require retiring to a cave or mountaintop, although a getaway like this can be enlightening for some people. It does involve separating yourself from friends, work associates and even from family on a regular basis, say half an hour daily at the very least, so you can look at your life carefully and lovingly and discover why you eat what you do, and why you behave in ways that may not serve you to the fullest extent.

This is a most important part of the recommendations. You may be assisted by a CD (or cassette tape if you prefer) that we offer entitled [The Meditation-Observation Exercise](#).

**4) Let go of all habits that feed the sugar habit. This is the hardest one of all.** We mean by this that you will discover many minor tendencies that contribute to the sugar addiction. It is this way with all major addictions.

You may want sugar when angry, for instance. Others may want sugar when they have skipped a good meal, or when tired and really need to lay down for even 15 minutes.

Try to identify when you want sugar, and what you have done to upset your body chemistry that makes the craving all the more intense. This is a task for a lifetime, but you can make fast progress easily if you will pay attention to it. By meditating every day and taking a *relaxed* walk each day.

We will give examples of how to overcome these habits later. For now we just introduce the subject for your consideration.

**5) Until the problem is corrected, be sure to eat a small meal or good-sized snack every 3 or at most 4 hours.** This will help keep your blood sugar constant and will therefore reduce sweet cravings. It is not a complete solution, but it can go a long way to avoiding hypoglycemic episodes that lead to sweet cravings.