

Sugar and Artificial Sweeteners

Sugar is an undeclared public enemy. Individuals who are serious about their health will take the time to understand the dangers of sugar (especially refined) and how it affects the body's metabolism.

Sugar cravings beget more sugar cravings. The so-called 'sweet tooth' is a phenomenon which can easily be avoided or eliminated through the conscientious practice of abstinence. Completely cutting out sugar for 72 hours is enough to get significant decrease or elimination of sugar cravings after that time.

What happens, however, when the 'sweet tooth' is eliminated, but you still have a hankering for something sweet? You enter the world of artificial sweeteners.

Artificial sweeteners have been used in products ranging from soft drinks to meal replacement shakes for quite some time now. Some examples include saccharin (Sweet-N-Low), aspartame (Equal or NutraSweet), and sucralose (Splenda).

We will take a closer look at each, as well as discuss some other sweetening agents such as sugar alcohols.

Saccharin

It is the grandfather of all artificial sweeteners, and is considered to be 300 times sweeter than table sugar. Sounds enticing. Laboratory rats, however, are not so enticed. Of all the artificial sweeteners, saccharin has been the most widely studied, partially due to Saccharin's length of time on the market. The lab rats experienced nausea, diarrhea, headache, irritability, insomnia, and some even developed bladder cancer. Proponents claim that saccharin has never been proven to be carcinogenic, though the FDA still labels it as an "anticipated human carcinogen (cancer-causing agent)".

Aspartame

The most widely used artificial sweetener, is 180 times sweeter than table sugar. Over 70% of Aspartame's usage is in soft drinks and colas, though it is used in many other products. Broken down, aspartame consists of the amino acids aspartic acid and phenylalanine.

Some reports claim that methanol levels, a by-product and known poison of the breakdown of aspartame, are at a toxic level in diet soft drinks.

Proponents claim that the breakdown of aspartame in the body is of little concern, as the methanol levels are not high enough and aspartic acid and phenylalanine are naturally occurring amino acids, making them safe.

Research supports both theories, depending on how you interpret the data. Please note that producers of aspartame do admit that the product can cause problems with individuals who suffer from the condition known as PKU, or phenylketonuria, which dictates that you must monitor your intake of phenylalanine.

Though aspartame is FDA approved, research has associated it with a number of side effects including dizziness, visual impairment, pancreatitis, hypertension, depression, and birth defects. Aspartame can be found on any shopping counters in cute, little packages.

Sucralose

Is the virtual baby of artificial sweeteners, is also known by its chemical name as 1, 6-dichloro-1, 6dideoxy-BETA-D-fructofuranosyl-4-chloro-4-deoxy-alpha-D-galactopyranoside.

Proponents on television and in the media claim that sucralose is all natural. That is true, to a certain extent, as sucralose is basically sugar

that goes through a chlorination process. The taste and smell is far from that of chlorine, however, as the product is considered to be 600 times sweeter than table sugar.

Unfortunately, being so new to the market, the product is only in the beginning stages of research.

Detractors of the product claim adverse reactions along the lines of reduced red blood cell count, diarrhea, reduced growth rate, gland shrinkage, and kidney and liver enlargement. Sucralose can be found in many of your 21st century's favorite pastries and cakes, as it is fast becoming a potential replacement for sugar in many baked goods. It can be used to completely hoodwink the customer. The manufacturers of 'junk foods' based on the use of this product can make fantastic health claims and get away with it.

Sugar alcohol

If you have ever munched on a low-carb meal replacement bar, or chewed on sugarless gum or certain toothpastes, you have probably used sugar alcohol knowingly or unknowingly. To be clear, sugar alcohol is neither a sugar nor an alcohol, so do not get too excited. What is a sugar alcohol?

Sugar alcohols are sweetening agents that are found naturally, but they go through a hydrogenation process to be made available in many of the products we consume today. Hydrogenation of fats and oils is detrimental to the nutritive qualities of these items (that is why from them), and opponents say the same might be true for sugar alcohol.

The research at this time, however, does not back up this theory. Sugar alcohols, like artificial sweeteners, are used to sweeten various food products and toothpastes. You can easily identify a sugar alcohol on a food label by the suffix -ITOL. Sugar alcohols occur naturally in foods and provide fewer calories than regular sugar. They

are converted to glucose more slowly, require little or no insulin to be metabolized, and do not cause sudden increases in blood sugar.

Having a clear understanding of the effect of insulin on the body's metabolism goes a long way towards understanding why this slow conversion to glucose (simple sugar) is essential to maintaining a lean body composition.

Bloating and diarrhea are common side effects with sugar alcohols. Plus they still have caloric value and can be overused. Other long term effects on the system are yet to be studied in detail. Let us however remember that this type of sugar does not exist in nature. It is purely manmade and hence not necessarily good for your health.

The use of these products is so widespread that it would be virtually impossible to avoid consuming them, if even in small doses.

Champions for the cause of sugar substitutes claim that these products offer a low calorie, weight-controlling, non-tooth decaying, FDA-approved alternative to sugar.

Detractors claim harmful reactions ranging from headaches to cancer.

If you believe that the lab rat is in any way akin to the human in structure and function, then you might want to think twice before utilizing these products on a regular basis.

Ultimately, the choice is up to you.

You can use small quantities of Jaggery or honey instead. Atleast they are natural, and the body can handle them.