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A Guide To Added Sweeteners

It's no secret that sugar is bad for your teeth and for your body. Alternative and artificial substitutes for sugar are not always healthier for your body either, regardless of what the box or the media might say about them. One of the best things you can do for your health is to simply eliminate all sugar and artificial sweeteners from your diet entirely. Easier said than done for most of us, but that doesn't mean that you can't start making healthier choices about how much and how often you eat sugar.

Blood Sugar vs. Table Sugar

Blood sugar is one of the primary fuels our body runs on, and there's a reason it's called sugar – because it is sugar in the form of glucose. But that doesn't mean you should just eat white sugar all the time to fuel yourself. Sugar absorbs very quickly into the bloodstream, creating extreme peaks and valleys in your blood glucose levels. Excessive intakes of sugar can eventually lead to chronic lethargy, headaches, and over time, insulin resistance or pre-diabetes. The key to regulating your blood glucose levels is in managing how quickly your dietary carbohydrates convert into glucose in your body. Too many "instant" converters, and you may begin to have some problems.

The speed of glucose conversion is also a key determining factor in how damaging the carbohydrate will be to your teeth. Sugar and highly-refined complex carbohydrates will almost instantly create a glucose-rich environment in your mouth, feeding oral bacteria and causing them to grow and reproduce very quickly. That's why when you eat a piece of cake and a sugary drink at a party, you may often experience "fuzzy" teeth or "sweater" teeth. That's not sugar on your teeth, it's plaque – large colonies of oral bacteria growing and feeding on the sugar you've just put in your mouth, and releasing acid in the process.

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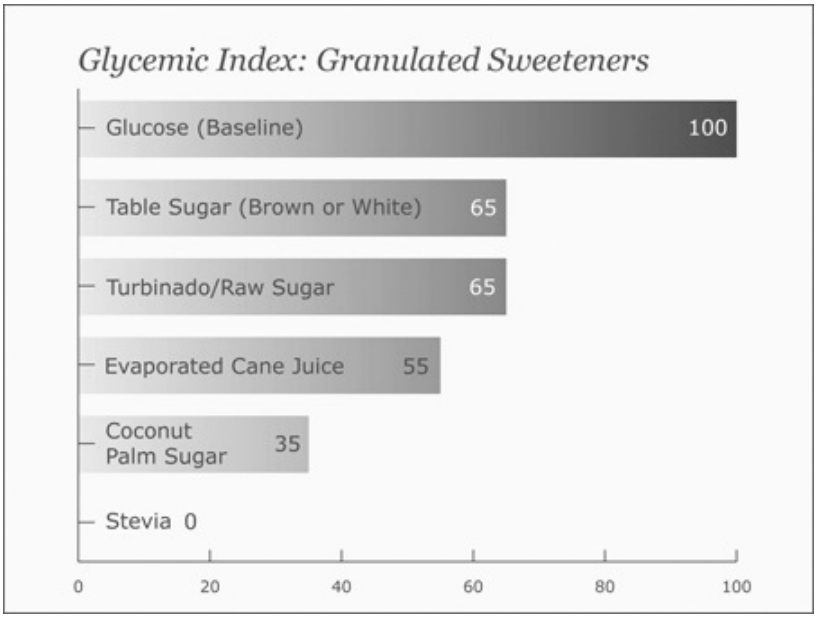
Blood Sugar vs. Table Sugar (cont'd)

Acid and sugar in the mouth combine to create the perfect environment for pathogenic plaques to thrive and destroy teeth. Growing a healthier type of plaque in the mouth requires a diet of good proteins and the complex carbohydrates found in unprocessed fruits and vegetables, legumes (beans), and whole grains. Refined grains, most cereals, chips, sweeteners, fruit juices, and drinks with high concentrations of acid and sugar (like sodas and sports drinks) should all be limited or eliminated from your diet.

One way to understand the basics of how quickly a carbohydrate will convert into sugar in the body is to look at its Glycemic Index. The Glycemic Index is not a perfect barometer for every individual's body chemistry, but it is a good way to compare the relative effects of one sweetener to another. It is also a great way to get a basic idea of how quickly a particular carbohydrate might begin converting to sugar in your mouth and cause damage to your teeth.

Granulated Sugar

There's a lot of hype in the media about natural, raw, and organic sugars. And while it is true that less processing of cane or beet sugar allows the final product to retain more nutrients than fully refined sugar, this does not make raw sugar an ideal source of nutrition. It also does not change the fact that the GI remains the same. In large quantities, raw sugar will



Granulated Sugar (cont'd)

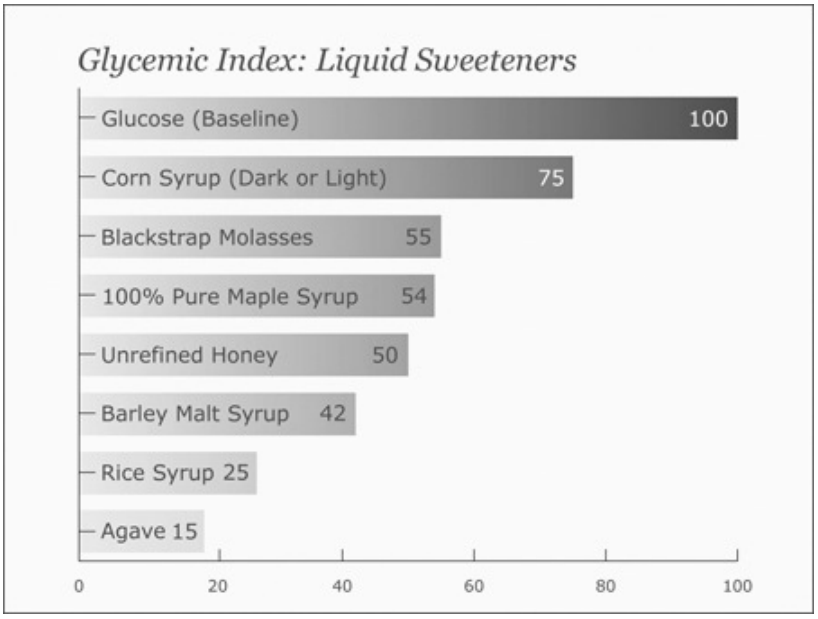
ultimately have the same effect on your teeth, your blood sugar, and your weight that excesses of refined sugar will have.

Evaporated cane juice is the closest in flavor to table sugar, but rates only slightly lower on the GI. Coconut palm sugar has a slight carmel flavor and is not quite as sweet as sugar, but still remains one of the best alternatives to table sugar and replaces it well at a ratio of 1:1 for all applications.

Pure stevia has no glycemic rating at all, is much sweeter than sugar, and can be a bit of an acquired taste. You can buy pure stevia at natural health food stores, but you cannot use it for baking and it does not replace sugar 1:1 as a drink sweetener. Truvia and Purevia both use stevia as a primary sweetener in their products, but neither is made from pure stevia and cannot be used for baking unless blended with table sugar.

Liquid Sweeteners

When purchasing any kind of liquid sweetener, be sure to read the ingredients very carefully. Many brands of maple syrup, honey, and even molasses may contain added sugar and artificial flavors to intensify the sweetness. And in the case of honey, always try to find a brand that is produced locally as many of the national



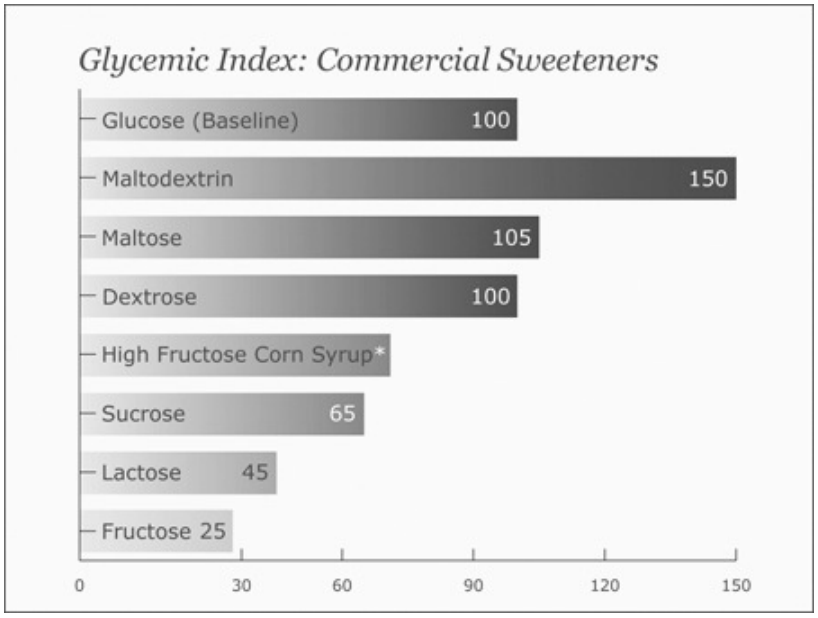
Liquid Sweeteners (cont'd)

brands source honey from around the world and blend them, making it impossible for you to know where the honey came from and how it was processed.

When cooking, replacing corn syrup can sometimes be tricky. Maple syrup, honey, molasses, barley malt syrup, and agave all have unique flavors that can change the overall taste of your dish. Of all the liquid sweetener alternatives on this list, brown rice syrup has the cleanest flavor that replaces the pure sweetness of corn syrup well. Brown rice syrup is not nearly as sweet as corn syrup, however, so you may want to try a blend at first until you get used to a less sweet flavor overall.

Commercially-Added Sweeteners

Reading labels can be confusing, especially when so many of the ingredients are unfamiliar. In general, it's best to avoid packaged and processed foods that have long strings of ingredients that you cannot identify or pronounce. At first glance, that cracker or ketchup may look like it doesn't have any sugar in it, but don't be fooled. Everything on this chart is a form of sugar, is contained in products you wouldn't think would be sweetened at all, and many are far worse for you than table sugar alone.



Commercially-Added Sweeteners (cont'd)

When it comes to commercially added sweeteners, high fructose corn syrup is often the one that gets singled out. The current GI of HFCS is not available, but it is estimated that it does not vary significantly from other forms of refined sugar (65 – 72), and therefore on that basis alone should be avoided in favor of less refined products with established lower GI ratings.

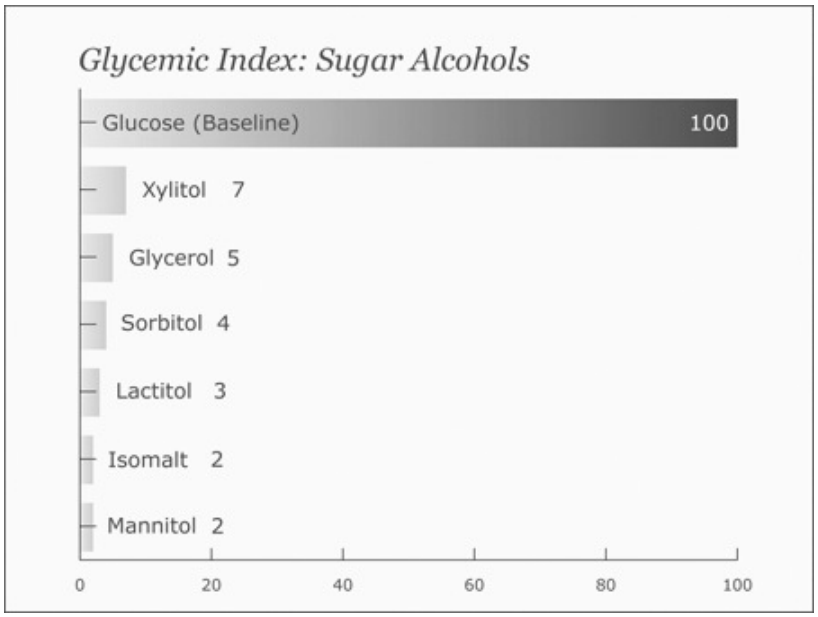
Maltodextrin, on the other hand, skyrockets off the GI chart, with GI values varying from 105 up to 150 depending on how it is produced. Maltodextrin is not as sweet as sugar and it contains fewer calories. It is most commonly used as a thickener or filler, especially in calorie-reduced products. You will find maltodextrin listed in all kinds of processed foods including powdered gravy, salad dressing, instant pudding and other desserts, sports nutrition bars and beverages, sauces, etc. Maltodextrin supplements are also available and are commonly used among body-builders and other elite athletes to provide quick energy during a strenuous workout. The extremely high GI of maltodextrin is what makes it so effective in these athletic applications, but for most of us regular consumption of maltodextrin may not be the best choice for our bodies. Maltodextrin is also not advised for anyone with diabetes or hypoglycemia.

Sugar Alcohols

All sugar alcohols score extremely low on the Glycemic Index and you will generally find them as the primary sweetening ingredients in diabetic foods, gum, mints, and toothpaste. However, of all the sugar alcohols, xylitol is the only one that has been demonstrated to actually aid in the prevention of tooth decay.

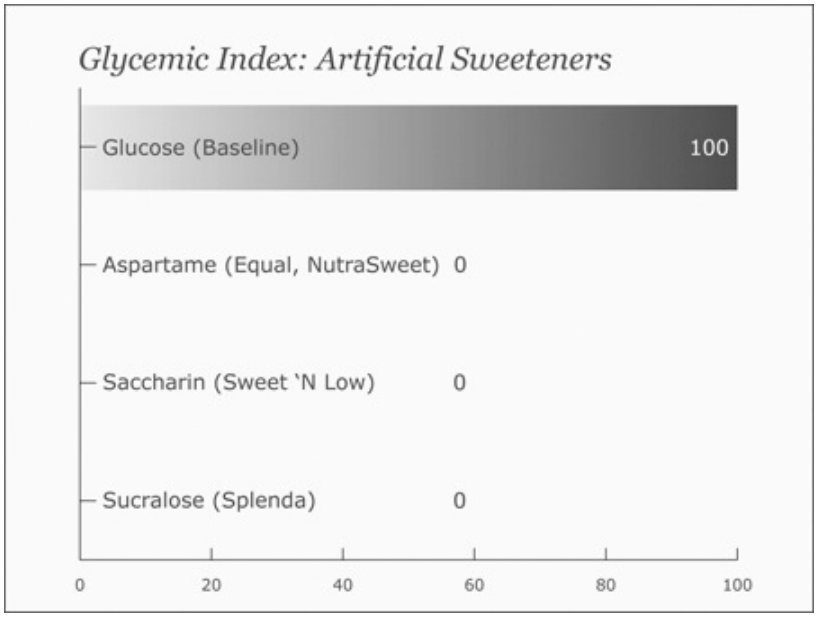
When choosing a toothpaste, mint, or gum, we always recommend that you seek out a product that lists xylitol as one of the top three ingredients before any other form of sugar. Xylitol is

Sugar Alcohols (cont'd)
also available in granulated form and can be used 1:1 as a substitute for table sugar. However, as with all sugar alcohols, large quantities of xylitol can lead to digestive problems, mostly in the form of diarrhea. When making recipe substitutions for table sugar, always use xylitol in moderation, and always combine it with other low GI sweeteners to equal the original amount of sugar required in the recipe.



Note: Xylitol is poisonous to dogs.

Artificial Sweeteners
Artificial sweeteners are designed to have zero calories, which automatically puts them at zero on the GI. But are these sweeteners really worth it?



Some studies are now showing that using artificial sweeteners may actually increase cravings for

Artificial Sweeteners (cont'd)

sweetness. Also, most artificial sweeteners are used in combination with extremely acidic flavor enhancers. Those zero-calorie drinks may not be putting weight on you, but they are bathing your teeth and your body in concentrated forms of acid. This acidic environment in the mouth and in the body creates the perfect environment for pathogenic bacteria to breed.

Making Healthier Choices

If you have a sweet tooth, sometimes it can be hard to make the switch to a lower-glycemic sweetener. Not all of them are as sweet as sugar, and the taste itself can vary from product to product. In the beginning, make small changes your goal.

- Try the products that are lower on the index than sugar (under 65) and if you do not like the taste of them alone, try mixing them with the sweetener you would normally use. Over time, increase the proportion of the new sweetener to the old until you develop a taste for it. You may be surprised at how easily and quickly you can make the switch.
- Replace your toothpaste, mints, and chewing gum with products sweetened with xylitol. Not only will this help reduce your overall refined sugar intake, but xylitol is actually clinically proven to help prevent cavities.
- As you work to eliminate high-glycemic sweeteners from your diet, you may also be surprised at how good you feel and your increased level of energy. Some aches and pains you may have attributed to age and arthritis might even begin to disappear.

Common Pitfalls for You and Your Family

Chewable Vitamins

Chewable and gummy vitamins can often be overloaded with sugar and acid. They also tend to stick to the teeth, increasing the potential for damage over time. When choosing vitamins for your children, consult with your pediatrician about the possibility of switching to a liquid multivitamin. Many brands use low-glycemic sweeteners, and while they still generally have a good deal of citric acid in them, they won't stick to the teeth the way gummies and chewables will.

Coffee Drinks

No matter where you purchase your morning latte or blended caffeinated beverage, be mindful of the added sugars. Most national and independent coffee houses use syrups and other sugar-laden additives to sweeten and enhance the flavors of their drinks.

If you purchase one or more of these beverages per week, do your research. Find out what the ingredients actually are, either by asking your barista or checking online. You may be surprised by what you will find. There are always alternatives, even when ordering something from a large coffee chain. Here are some ideas:

- When you can, make your own coffee or tea at home. Try using some of the low-glycemic sweeteners listed above instead of regular sugar or flavored creamers.
- At the coffee shop, avoid syrups, concentrates, and other sugar-laden drink bases in favor of a plain latte, regular coffee, or tea. Control the amount and type of sweetener yourself by adding it at the condiment bar, or carry your own alternative with you.

The more control you have over the amount and type of sweeteners you ingest throughout the day, the better. It's easier on your wallet, and your body will thank you for it.

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