



Know the facts

Nutrition & Fitness



Sugar

Sodium is essential in small amounts

We like sugar because sweet is one of the first basic tastes we encounter through lactose in breast milk and most infant formulas. Sugar is also a quick source of energy which creates a natural inclination towards sweets the way a plant reaches towards the sun.

Glucose, sucrose and fructose are the most common sugars in foods and are the body's preferred source of quick energy. They fuel every cell in the body, particularly muscle and brain cells. If we deprive the body of blood glucose it may lead to a coma. If we give it too much glucose it may lead to a surge in insulin levels in the blood which in turn leads to a depletion of blood glucose levels. To maintain a healthy equilibrium in the body, the blood circulates roughly 2 teaspoons of sugar at any given time. A single orange may contain 16 grams of sugar, the equivalent of 4 teaspoons.

Our ancestors enjoyed sweets from whole foods, like fruit, roots and tubers. These naturally sweet foods, such as ripe fruits, yams, squash and dairy, are relatively dense in nutrients and calories. These were available only in small quantities or at certain times of the year and contained health-enhancing macro and micronutrients, such as fiber, antioxidants and other phytochemicals. Thanks to the presence of fiber, our ancestors' bodies digested any sugar they ate slowly, so, glucose entered their bloodstream in a slow and steady stream. And because they were active, they burned that sugar as fuel.

Today, basic human biology is the same, but most of the sugar in our diets doesn't come from whole foods; instead it is refined. And our lives are far more sedentary. As a result, the concentrated sugar in the modern diet hits the body like a hurricane and often the energy it produces has nowhere to go. Early humans ate about 4 pounds of complex sugar a year. We consume around 136 pounds of refined sugar. That boils down to roughly 22 teaspoons per person per day!!!!

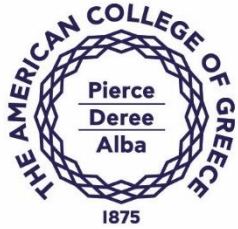


WHY WORRY

Constant sugar consumption robs the body of its ability to fend off stress and chronic illness. Some of the malfunctions that may be a result of a lifetime of sugar consumption are Diabetes, Metabolic Syndrome, Heart disease, Cancer, Candida AND Immune system weakness

WHY WE LIKE SUGAR

The reason why we find sugar appealing, even addictive is because it activates the brain's reward center, causing it to release feel-good substances, such as dopamine and beta-endorphins (natural pain killers). Sugar is also addictive because it makes it easier for the amino acid: tryptophan to get into the brain, where it is converted into serotonin, known as the "happiness molecule", and has the ability to bestow mellowness and calm. Sugar may initially give us energy, then calm us down, but at a price. When it wears off, we are in big trouble. What's more, studies suggest that each sweet indulgence reinforces those neuropathways, causing the brain to become increasingly hardwired to crave sugar.



Know the facts

Sugar: now you see it now you don't

Some sources of sugar are obvious but others are hidden in breads, cereals, sauces, salad dressings, etc.

Take a look

- (1 cup) Spaghetti sauce = 23 grams of sugar
- (1 cup) Frosted Flakes = 15 grams of sugar
- (1/2 cup) Barbecue sauce = 33 grams of sugar
- (1 can) Cola = 33 grams of sugar
- (1 tbs.) French dressing = 3 grams
- (1 tbs.) Ketchup = 3 grams of sugar
- (1 cup) Low-fat chocolate milk = 25 grams of sugar
- (1 cup) Fat-free fruit yogurt = 47 grams of sugar



Nutrition & Fitness



Are you confused?

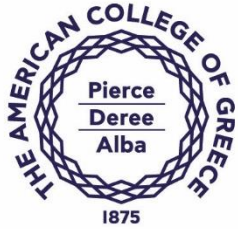
One of the most confusing things about sugar is that simple carbohydrates such as white flour, bread, rice and pasta, are processed as sugar by our bodies.

Sugar also has many different recognizable names on food labels such as:

- Cane syrup
- Corn syrup
- Dextrose
- Fructose
- Glucose
- Lactose
- Maltose
- Sucrose and anything ending in "ose" which is the chemical name for sugar.

You might be surprised at how many different ingredients are simply "sugar". For example:

- Barley
- Malt
- Brownricesyrup
- Carbitol
- Carmelcoloring, Dextrin
- Diglycerides
- Disaccharide
- Saccharides
- Sorbitol
- Sorghum
- Xylitol



Know the facts

Nutrition & Fitness



- What should you do?
- Treat all sugars equally. The taste buds don't care if you're eating raw sugar or high fructose corn syrup. Some sweeteners, like honey, maple syrup and molasses, contain a few beneficial micronutrients. But, in the long run, putting health halos on some sweeteners and demonizing others only perpetuates an unhealthy addiction to sweets.
- Do the math. Food labels list sugar in grams. A gram of sugar is hard to picture but a teaspoon equals four grams. In 2009, the American Heart Association advised adults to eat no more than 6 teaspoons (24g) of added sugars a day for women and 9 teaspoons (36g) for men.
- Put protein, healthy fat and fiber in the mix. All of them slow down the digestion process, averting blood-sugar spikes. Eat a whole orange rather than drinking the juice. Have an egg or some nut-butter with your toast and jam. Add nuts in your cereal and choose dark chocolate, which contains some fat, over fat-free candies.
- Don't fall for fake. Artificial sweeteners, often used in diet drinks, are non-caloric chemicals designed to stimulate the sweet receptors in the mouth. Aside from their questionable safety, a pressing concern is that these chemicals are up to 600 times sweeter than sugar itself. In other words you are simply cultivating a preference for more sugar.
- Limit fruit juice. Remember, it's the fiber and the nutritional value that make fruit a win-win. Fiber is what makes fruit filling. Depending on its size, an orange may pack up to 4 teaspoons of sugar, but that sugar is absorbed over a couple of hours. Compare that to the 8 teaspoons of sugar in 8 ounces of orange juice that is absorbed in 20 minutes. Remember that insulin is released according to how much sugar gets into your bloodstream and how quickly.
- Prioritize low-sugar fruit. When it comes to sugar, not all fruits are created equal. Inside the body, some fruits, such as bananas, convert to sugar more quickly than others like raspberries and strawberries. That's not to say you can't enjoy a banana now and then.
- The trick to enjoying the sweet things in life is to remove hidden sugars in the diet and save small doses of sugar for dessert, where it belongs. You can subtract grams of sugar out of your diet without ever touching dessert, by simply making better choices.

Authored by Sophie Themelis, Wellness Coordinator, Pilates Instructor, ACG Health & Wellness Center.
Edited by Christina Drakonakis, Associate Dean of Students, Office of Student Affairs, ACG Health & Wellness

Sources & further reading: www.webmd.com, www.europeanfoodinfocouncil.com, www.who.int