How Sweet It Is(n't)

Sugar sure tastes great, but is the sweet stuff good for you?

March 4, 2010 By Kate Ferguson

Is sugar really that bad for you? To answer that question, let's first discuss the role sugar plays in our diet.

"Sugar doesn't just make you perky," says nutritionist Elizabeth Somer, MA, RD, and the author of *Eat Your Way to Happiness* and *Age-Proof Your Body*. "It supplies calories."

But almost all foods contain calories, which provide the energy that fuels our bodies. Without sufficient calories our bodies would stop functioning.

Nutritionally speaking, all sugars—whether naturally occurring in foods or added to them—are categorized as carbohydrates. Like protein and fat, carbs are considered a major food nutrient. Carbs are divided into two major types: simple and complex sugars.

Simple sugars are the body's primary source of quick energy. They're found naturally in many foods, such as fruits, vegetables, milk and yogurt.

Complex sugars (a.k.a. starches or complex carbs) include rice and grains, which are in turn used to make bread, crackers and pasta. These complex carbs may be refined or unrefined—generally, the more they are processed, the fewer nutrients they contain.

When people think of sugar, most think of table sugar (sucrose), the white crystalline sweetener manufactured from sugar cane or sugar beets. But sucrose also occurs naturally in many fruits, seeds, roots and honey. People consume extra sugar by eating foods sweetened with table sugar, honey, corn syrup (see our cover story for more details) or fructose (mostly derived from fruit juice).

Another type of simple sugar is glucose. Found in natural and processed foods, glucose is often called blood sugar because it specifically refers to the sugar in the bloodstream (more on this later).

Research shows that our love of sweet tastes is partially inherited. During one study, scientists discovered a trait on a chromosome—identified as chromosome 16—that confirmed this

preference. Humans' fondness for sweet-tasting foods may not have created problems long ago, when food was scarce, scientists say, but today, when food is plentiful—and pumped up with added sugars—the sweet tooth can take a damaging bite out of our well-being.

Renee Bullock-Palmer, MD, a board-certified cardiologist at St. Luke's-Roosevelt Hospital in New York City, agrees. And she spells out which sweets are the worst offenders. "The type of sugars that have been shown to promote fat deposition and high risk for diabetes are the added sugars like sucrose and high-fructose corn syrup," Bullock-Palmer says. "Besides diabetes, they can also produce hypertension, even atherosclerosis [fat deposits in the vessels that supply the heart with blood]."

The big scare is that an accumulation of these fat deposits, also called plaque, might narrow the blood vessels (arteries) and stop the flow of oxygen-rich blood to the heart and other parts of the body.

What is most alarming to Bullock-Palmer is the amount of sugar the high-fructose corn syrup manufacturers sneak into our diets, usually in the beverages we down each day.

Her fear is confirmed by a recent study published in *Circulation Journal of the American Heart Association*. The findings indicate that regular soft drinks and fruit beverages (fruitades and fruit punch) account for almost 43 percent of total added sugars consumed in the American diet.

"You'd be surprised at how much sugar you can remove from your diet by just avoiding unnecessary sweetened drinks with your meals," Bullock-Palmer says.

But not all sugars are created equal—and not all of them should be counted as bad calories. The major difference between added dietary sugars and the naturally occurring sugars is in the way the body metabolizes them—and this is influenced by the other nutrients present in the food. But both simple and complex sugars can be part of a balanced, healthy diet. Just observe variety and moderation when making food choices.

"When natural sugars are consumed, they are very diluted because they come with all the food's other nutrients," Somer explains. "For example, an apple has fiber, and fiber tends to slow digestion and slow the rate that glucose enters the bloodstream. That apple, orange, kiwi or milk is also high in vitamins, minerals and thousands of phytonutrients (plant nutrients)."

Compare that with the less-wholesome fare. "Processed foods tend to have added sugar and are significantly lower in nutritional value than whole foods ounce for ounce," she notes. "They usually have none of the phytonutrients you get in fruit."

Also keep in mind that the nutritional value doesn't depend on whether the sugars or syrups are added to food during processing, preparation or just before it's eaten.

Another reason physicians are concerned about processed foods with added sugar is because they

contribute to diabetes and obesity, which is a major risk factor for cardiovascular disease.

In light of people's tendency to often eat too much of a good-tasting thing, the American Heart Association (AHA) recommends cutting back on added sugars. Specifically, it suggests that American men and women limit themselves to no more than 150 and 100 calories, respectively, of added sugar each day.

Bullock-Palmer breaks it down even further. "The recommendation for females is that you should not have more than five teaspoons of sugar a day; for men, no more than eight to nine—and that's equivalent to a can of soda," she says.

The importance of restricting sugar intake, Bullock-Palmer stresses, is to prevent an increase in insulin—a hormone produced in the pancreas that allows cells to use glucose (a.k.a. blood sugar) for energy. If there's an excess amount of insulin in the body, over time, our cells can become insensitive to it. Once this occurs, the body can no longer use insulin effectively. Insulin insensitivity is a major symptom of type 2 diabetes.

If the problem progresses, the body gradually becomes resistant to the hormone's effects. This is called insulin resistance. When cells can't use glucose because they are unable to use insulin, sugar accumulates in the blood where it may cause serious damage to the body's organ systems.

Glucose is a health concern even for those who don't have diabetes. "When sweet foods dump glucose into the bloodstream too quickly, it spikes blood sugar levels," Somer explains. And foods that do this are associated with an increased risk for diabetes and possible weight gain. "If you can eat more foods that don't spike your blood sugar levels, you'll have an easier time lowering your risk for disease and increased weight."

If by now you feel you should avoid all sweet stuff, not so. Many naturally sweet foods are good and safe sources of energy and nutrients. A healthy and well-balanced diet includes naturally occurring sugars present in fruits, veggies, dairy foods and many grains.

Here's another benefit: Sweetening nutrient-rich foods, such as milk and cereal, improves their taste—and the likelihood that young people will eat them. The problem, researchers found, is that consuming too much sugar leads to negative health effects.

But the solution is simple. Docs recommend placing commonsense limitations on our daily sugar intake. One simple way to do this is to just say no to sodas—and teach your kids to do the same.

"Definitely look at labels," Bullock-Palmer adds. "It starts at the grocery store. We should get into the habit of preparing our foods instead of buying fast foods."

The big challenges involve money and time. We live in a culture where it's cheaper to buy a Big Mac than fresh broccoli. And who in working families has time to prepare daily meals from scratch? To fight the temptation of fast-food convenience, Bullock-Palmer recommends using the weekend

to prepare meals you'll eat throughout the week.

"And try to introduce children to fruits and vegetables, healthy eating habits and fun physical activities early in their lives," Bullock-Palmer stresses. "Good habits start early."

Hooked on Sweets?
There are four types of sugar addiction, says Jacob Teitelbaum, MD, author of Beat Sugar Addiction Now! *This quiz tests for Type 1: chronically exhausted and craving caffeine and sugar.*

Are you a Type 1 sugar addict?
Your total score will tell you whether you fit the type 1 profile. Do you?

__Do you feel tired much of the time? (20 points)
__Do you need coffee to get jump-started in the morning? (10 points)
__Do you experience a mid-afternoon slump? (10 points)
__Do you have occasional insomnia? (20 points)
__Do you have indigestion? (15 points)
__Do you feel achy? (15 points)
__Do you have frequent headaches? (15 points)
__Are you gaining weight or having trouble losing weight? (Score 1 point for every two pounds gained during the past three years.)
__What is the average number of ounces of non-diet soda or caffeinated coffee you drink daily? (Score 2 points for each ounce.)
__What is the average number of ounces of "energy drinks" containing sugar or caffeine that you drink daily? (Score 6 points for each ounce.)
__Do you repeatedly crave sweets or caffeine to give you the energy to get through the day? (25 points)
__Are you working more than 40 hours a week? (Score 2 points for each hour over 40.)

Your total score __

Score
0–40: You do not have Type 1 sugar addiction.
41–70: You could use Teitelbaum's tips to help restore your energy production.
Over 70: You are a sugar and caffeine junkie. Read his book so you can learn how to restore your energy production naturally. This will help you cut back on sugar and still feel great.

From the book Beat Sugar Addiction Now! *by Jacob Teitelbaum, MD, with Chrystle Fiedler, (Fair Winds Press, fairwindspress.com). Reprinted with permission.*