Sugar detox? Cutting carbs? A doctor explains why you should keep fruit on the menu

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One of my patients—who had been struggling with obesity, uncontrolled diabetes and the cost of her medications—agreed in June 2019 to adopt

a more whole-food plant-based diet.

Excited by the challenge, she did a remarkable job. She increased her fresh fruit and vegetable intake, stopped eating candy, cookies and cakes and cut down on foods from animal sources. Over six months, she lost 19 pounds and her HbA1c—a measure of her average blood sugar—dropped from 11.5% to 7.6%.

She was doing so well, I expected that her HbA1c would continue to drop and she would be one of our plant-based successes who had reversed diabetes.

Her three-month follow-up visit in March 2020 was canceled because of COVID-19 lockdowns. When I eventually saw her again in May 2021, she'd regained some of the weight and her HbA1c had climbed to 10.4%. She explained that her diabetes doctor and a diabetes nurse educator had told her that she was eating too much "sugar" on the plant-based diet.

She'd been advised to limit carbohydrates by cutting back on fruits and starchy vegetables and eating more fish and chicken. Sugar-free candy, cakes, cookies and artificial sweeteners were encouraged. In the face of conflicting medical advice, she fell back on conventional wisdom that "sugar" is bad and should be avoided whenever possible, especially if you have diabetes.

I'm a physician, board certified in preventive medicine with a lifestyle medicine clinic at Morehouse Healthcare in Atlanta. This emerging medical specialty focuses on helping patients make healthy lifestyle behavior modifications. Patients who adopt whole-food plant-based diets increase carbohydrate intake and often see reversal of chronic diseases including diabetes and hypertension. In my clinical experience, myths about "sugar" and carbohydrates are common among patients and health

professionals.

Fruit vs. sugar

Your body runs on glucose. It is the simple sugar that cells use for energy.

Glucose is a molecular building block of carbohydrates, one of the three essential macronutrients. The other two are fat and protein. Starches are long, branching chains of glucose.

Naturally occurring carbohydrates travel in nutrient-dense packages such as fruits, vegetables, whole grains, nuts and seeds.

Humans evolved to crave sweet tastes to get the nutrients needed to survive. A daily supply of vitamins, minerals and fiber is needed because our bodies cannot make them. The best source of these substances for our ancient ancestors was sweet, ripe, delicious fruit. In addition, fruits contain phytonutrients and antioxidants, chemicals produced only by plants. Phytonutrients such ellagic acid in strawberries have cancer-fighting properties and promote heart health.

Refined sugars, on the other hand, are highly processed and stripped of all nutrients except calories. They're a concentrated form of carbohydrates. The food industry produces refined sugars in many forms. The most common are sucrose crystals, which you'd recognize as table sugar, and high-fructose corn syrup, which is found in many processed foods and sweetened beverages.

If you continually satisfy your taste for sweet with foods that contain refined sugar—rather than the nutrient-rich fruits at the core of this craving passed on by evolution—you may not get all the nutrients you need. Over time, this deficit may create a vicious cycle of overeating

that leads to obesity and obesity-related health problems. Women who eat the most fruit tend to have lower rates of obesity.

Sugar toxicity

Refined sugars are not directly toxic to cells, but they can combine with proteins and fats in food and in the bloodstream to produce toxic substances such as advanced glycation end products (AGEs). High blood glucose levels may produce glycated low-density lipoproteins. High levels of these and other glucose-related toxic substances are associated with an increased risk of a wide range of chronic health problems, including cardiovascular disease and diabetes.

The disease most commonly associated with sugar is Type 2 diabetes. A surprising number of people, including health professionals, incorrectly believe that eating sugar causes Type 2 diabetes. This myth leads to a focus on lowering blood sugar and "counting carbs" while ignoring the real cause: progressive loss of pancreatic beta cell function. At diagnosis, a patient may have lost between 40% and 60% of their beta cells, which are responsible for producing insulin.

Insulin is a hormone that controls how much glucose is in the bloodstream by blocking glucose production in the liver and driving it into fat and muscle cells. Loss of beta cell function means not enough insulin gets produced, resulting in the high blood glucose levels characteristic of Type 2 diabetes.

Beta cells have low levels of antioxidants and are susceptible to attack by metabolic and dietary oxidized free radicals and AGEs. Antioxidants in fruit can protect beta cells. Researchers have found that eating whole fruit decreases the risk of Type 2 diabetes, with those who eat the most fruit having the lowest risk.

Detoxing from sugar

People interested in losing weight and improving health often ask if they should do a "sugar detox." In my opinion this is a waste of time, because it is not possible to eliminate sugar from the body. For instance, if you ate only baked chicken breasts, your liver would convert protein to glucose in a process called gluconeogenesis.

Low-carb diets may lead to weight loss, but at the expense of health. Diets that significantly reduce carbohydrates are associated with nutrient deficiencies and higher risk of death from any cause. On low-carbohydrate ketogenic diets the body will break down muscles and turn their protein into glucose. The lack of fiber causes constipation.

Eliminating foods sweetened with refined sugar is a worthy goal. But don't think of it as a "detox"—it should be a permanent lifestyle change. The safest way to go on a refined sugar "detox" is to increase your intake of nutrient-dense fruits and vegetables. Once you eliminate refined sugar , you'll likely find that your taste buds become more sensitive to—and appreciative of—the natural sweetness of fruits.

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