



Upper Arlington Preventative Primary Care

Sugar in Fruit versus Added Sugar

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In 2014 the World Health Organization (WHO) released a recommendation stating that an individual's total daily sugar intake should not exceed greater than 5% of their entire daily caloric intake. The recommendation resulted in many Americans questioning if the natural sugar found in whole unprocessed fruits counted in that recommended 5% total.

The short answer is an emphatic no. The natural sugar found in whole unprocessed fruits does not count toward the 5% recommendation.

The natural sugar that is contained in whole fruits is bound to fiber. And it is the presence of this fiber in whole natural foods like fruits (and vegetables) that makes a critical difference in how your body reacts when they are eaten.

The fiber causes your body to absorb and process the sugar very slowly. The slower breakdown of the natural sugar found in whole fruits is different than what happens to the breakdown of all those added sugars and sweeteners that are contained in many packaged and processed foods. Examples of commonly used added sugars in packaged and processed foods include: honey, cane sugar, high-fructose corn syrup, agave, brown sugar, dextrose, and confectioners glaze, among others.

When you consume any type of food or beverage that contains sugar, which is a form of carbohydrate, your digestive system breaks the sugar down into glucose. The glucose then enters the bloodstream, and your blood sugar levels rise. Your pancreas subsequently releases insulin, which is a hormone that signals cells in your body to remove the glucose from your bloodstream. Once the glucose is in your cells it can be utilized for all forms of movement (the glucose is used for energy), or it can be stored in those cells for use at another time.

Highly processed and refined grain products like white bread, white pasta, and most packaged and processed foods are very low in fiber. Accordingly when these sorts of low fiber food products are eaten they deliver high levels of carbohydrates, which are broken down and digested very quickly. This rapid breakdown of the low-fiber carbohydrate food products raises blood sugar and insulin levels quickly. Additionally, due to their liquid form, the sugars found in smoothies and sodas enter into the bloodstream even more rapidly.

One tactic the food industry has taken is the practice of adding fiber to packaged and processed foods. Unfortunately, simply adding powdered fiber during the creation of a packaged and processed food does not create a product that is equal in any way to a natural whole food. Said another way, the addition of powdered fiber to any processed food or smoothie does not solve the problem of the rapid rise in blood glucose.

It is literally the physical form and structure of the carbohydrates that matters. Simply put, a whole natural fruit is composed of unbroken cell walls that intertwine and bind the natural sugar to the natural fiber. In a whole natural piece of fruit those cell walls, their physical structure, are not broken down during any form of processing. This requires your own digestive system to break them down and the natural sugar enters your bloodstream slowly over time. This results in a much slower rise in your blood glucose. The intact cell wall structure is the key difference between a whole natural fruit and a smoothie or fruit juice.

For example, two whole apples may contain the same amount of sugar as 12 ounces of apple juice or a 12-ounce can of soda. However, the rates of digestion, absorption, and rise in blood glucose caused by the natural sugars found in the whole apples is significantly slower when compared with the added sugars found in the juice or soda. Further, the juice and soda products contain no fiber.

It is always best to favor whole natural fruits to smoothies or fruit juices. Smoothies made with blended whole fruits do contain a small amount of fiber, and the same is true for fruit juices made from whole fruits. However, a large amount of the natural fiber from the whole fruit used to create the smoothie or juice has been broken down in the process of blending and juicing. Therefore, when compared with the digestion of whole natural fruits, the blending and juicing process results in a decreased amount of time for the sugar to enter the bloodstream.

In my opinion, the best approach for your lifestyle nutritional plan is to think about and evaluate your daily food choices in terms of whole natural foods, not simply in terms of nutrients. There is no question consuming a wide variety of nutrients is vital for your health, but it is always best to obtain them from food that has been minimally or completely unprocessed.