

# DOES SUGAR FEED CANCER?

*It's not that simple!*



## Sugar and Cancer Cells

Many people have heard the statement that “sugar feeds cancer”. Maybe a friend, family member, or a well-intentioned, but somewhat misguided, health professional has even said it. The fact is that all cells, including cancer cells, need sugar in the form of glucose to generate energy.

## Added sugar or natural sugar?

**Carbohydrates and sugars are an important part of a healthy diet.**

There are two basic forms of sugar:

1. **Added sugars** are simple sugars that we add to our foods like coffee or tea, or they are added to processed and prepared foods by food manufacturers.
2. **Naturally occurring sugars** are the sugars that are found in whole, unprocessed foods such as milk, fruits, vegetables, and grains. They are usually called complex carbohydrates.

Complex carbohydrates are also broken down into the basic sugars before they are absorbed. But, the digestive process requires more work and thus happens slower. These foods also contain fiber, vitamins, minerals, and phytochemicals, all of which are important to overall energy, health, and immunity.

## Bottom Line

“Sugar (glucose) comes from all carbohydrate foods. We can't control which cells get the sugar (glucose). If we don't provide our body with enough carbohydrates through food, our bodies are forced to make it in order to meet the needs of all cells. Making sugar (glucose) results in muscle loss and a weakened immune system which is the last thing you want during treatment! Therefore, whenever possible, it is best to provide food sources of carbohydrates regularly throughout the day.”

*-Julie Lanford, MPH, RD, CSO, LDN  
Board Certified Specialist in Oncology Nutrition*



## WHY DOES CANCER GLOW ON A PET SCAN?

### Answer:

It's not that the sugar (glucose) is only reaching the cancer cells. It's the hyperactivity of the cancer cell that is detected on a PET scan.<sup>1</sup>

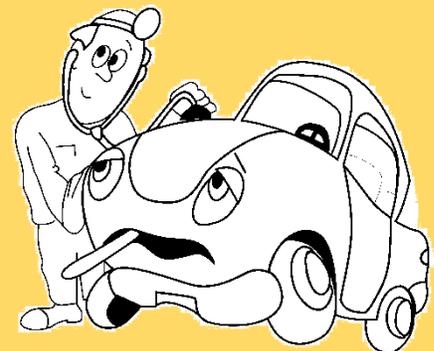
### Helpful Comparison:

Cells use sugar (glucose) the way cars use gas. Normal cells use a reasonable amount of gas, but cancer cells are gas guzzlers!

“During cell division, more glucose is used, much like an accelerating car uses more gas. Normal cells divide at varying rates, some every 3 days and some every 3 months, or more. After cell division, it returns to more of an idling state, using less glucose.

Cancer cells are like cars with the accelerator stuck to the floor, using glucose at high rates, because they are dividing at much faster rates than normal cells.”

*-Angelea Bruce, RD, CNSC, CSO  
Board Certified Specialist in Oncology Nutrition*



## Sugar and Health

**Bottom Line:** Currently, there is insufficient evidence to show a direct link between sugar intake and cancer growth.

### What exactly does the research say?

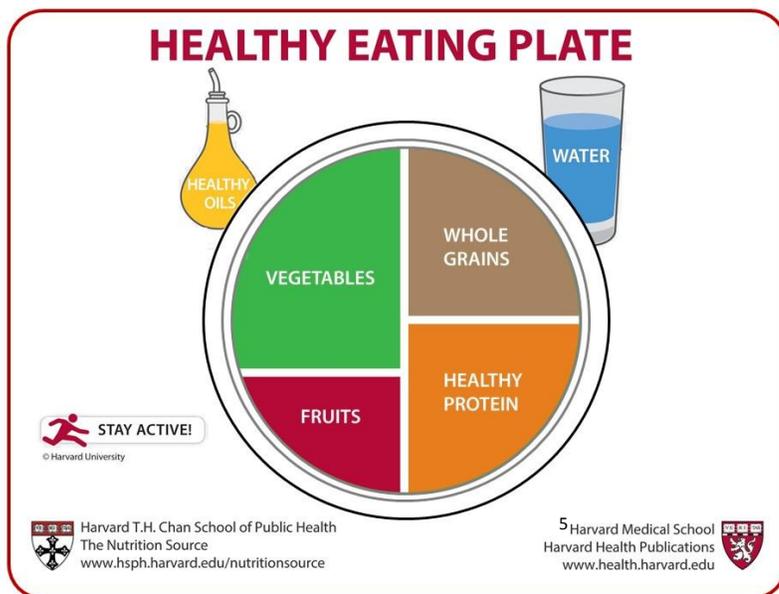
1. Current evidence suggests that consuming a diet high in simple and added sugars increases the risk for diabetes, and diabetes is linked to increased risk of cancer.<sup>2,3</sup>
2. We also know that carrying excess weight can increase risk for cancer. Several factors can result in weight gain during adulthood, including the overconsumption of sugary foods.
3. According to the American Institute for Cancer Research, "Choosing healthy foods and drinks instead of those that are high in refined carbohydrates and often in added sugar and fat (energy-dense foods) can help us avoid overweight and obesity and thereby reduce our cancer risk."<sup>4</sup>

## Cancer protection

**Bottom Line:** No single food or food component, including sugar, can cause cancer by itself. No single food or food component can protect you against cancer by itself.

There is strong evidence that a diet filled with a variety of plant foods such as vegetables, fruits, whole grains, and beans can lower the risks for many cancers and increase overall health and immunity.<sup>4</sup>

Follow this simple guide to get plenty of plant foods every day:



## What should I eat if I have cancer?

**During treatment:** Depending on your type of cancer, you may need more calories and protein.

For those who are having trouble finding things to eat, don't feel like eating, or are losing weight quickly (2 pounds a week or more), ask your doctor or oncology dietitian for strategies on getting adequate nutrition.

For those not having trouble tolerating foods, eat a diet of at least 2/3 plant-based foods. Keep animal sources of food to 1/3.<sup>4</sup> Want to learn more, The Cancer Dietitian™ has a free webinar on *Fighting Cancer with Your Fork* at <http://www.cancerdietitian.com/webinars>.

## How much added sugar do you eat?



The average American eats 22  
teaspoons per day<sup>7</sup>



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2. Giovannucci E, Harlan DM, Archer MC, et al. Diabetes and cancer: a consensus report. *CA Cancer J Clin.* 2010;60(4):207-221.
3. Arcidiacono B, Iiritano S, Nocera A, et al. Insulin resistance and cancer risk: an overview of the pathogenetic mechanisms. *Exp Diabetes Res.* 2012;2012:789174.
4. American Institute for Cancer Research. Recommendations for Cancer Prevention; [http://www.aicr.org/reduce-your-cancer-risk/recommendations-for-cancer-prevention/recommendations\\_03\\_sugary\\_drinks.html](http://www.aicr.org/reduce-your-cancer-risk/recommendations-for-cancer-prevention/recommendations_03_sugary_drinks.html). Accessed Jan. 28, 2016.
5. Harvard T.H. Chan School of Public Health. The Nutrition Source: Healthy Eating Plate & Healthy Eating Pyramid. 2011; <http://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/>. Accessed Feb. 1, 2016.
6. Ng SW, Slining MM, Popkin BM. Use of caloric and noncaloric sweeteners in US consumer packaged foods, 2005-2009. *J Acad Nutr Diet.* 2012;112(11):1828-1834.e1821-1826.
7. Ervin RB, Ogden CL. Consumption of added sugars among U.S. adults, 2005-2010. *NCHS Data Brief.* 2013(122):1-8.