UTSouthwestern

Harold C. Simmons Comprehensive Cancer Center Radiation Oncology

Does Sugar Feed Cancer?

There are many popular rumors about sugar and its role in cancer cell growth. Below are some facts about sugar and how it affects cancer risk.

Sugar and Insulin's Role in the Body

Sugar does not "feed" cancer cells any more than it "feeds" all cells in your body. The body needs glucose, or simple sugar, for energy. All carbohydrates break down into some form of sugar, making sugar a very important energy source. If you were to remove carbohydrates from your diet, your body would make energy from other sources, such as protein and fat.

Insulin must be present in order for sugar to be taken into the cell and used for energy. When you eat a lot of sugar, your body produces more insulin. Higher cancer risk is associated with increased insulin levels. So while some insulin in the body is normal, excess insulin may encourage cancer cells to grow.

Being overweight or obese may lead to insulin resistance with diabetes, resulting in the elevated insulin levels associated with cancer risk. Excess body fat may also impact cancer risk by affecting the regulation of cell division.

How Obesity Increases Cancer Risk

A diet high in sugar and highly processed foods may lead to weight gain. The American Cancer Society estimates one out of every three cancer deaths in the United States is linked to excess weight, poor nutrition, and/or lack of physical activity. Being overweight or obese also raises the risk for recurrence and reduces the odds of survival for many cancers.

Being overweight or obese clearly increases cancer risk of:

- Breast (in women after menopause)
- Colon and rectum
- Endometrium (lining of the uterus)
- Esophagus
- Kidney
- Ovary
- Pancreas

Being overweight or obese likely increases cancer risk of:

- Cervix
- Gallbladder
- Liver
- Non-Hodgkin lymphoma
- Multiple myeloma
- Prostate (aggressive forms)

How Much Sugar Should You Eat?

The American Heart Association recommends limiting added sugar to no more than 100 calories per day (about 6 teaspoons or 24 grams) for women and no more than 150 calories per day (9 teaspoons or 36 grams) for men.

If you eat sugar with some protein, fat, or fiber, your body processes sugar more slowly and, therefore, produces less insulin. Thus, while it is a good idea to limit the amount of simple sugar in your diet, there is no need to avoid it completely.

Focus on eating more complex carbohydrates, such as fruits and vegetables, whole grains, beans, and legumes, which digest slower than processed simple sugar and are part of a healthy diet.

How to Approach Sugar in Moderation

- Drink more water and avoid soda and fruit-flavored drinks that do not contain juice.
- Enjoy dessert as an occasional treat with a modest serving size and no more than a couple of times per week.
- Stick with naturally occurring sugar, such as sugar that is found in fruit. This is a much healthier option than processed sugar found in sodas, candy, cakes, pies, and other baked goods.
- Focus on whole, healthy, unprocessed food, including vegetables, fruit, whole grains, beans, legumes, nuts, and seeds.

In summary, sugar does not "feed" cancer cells. However, a lot of sugar can cause our bodies to produce too much insulin and contribute to unwanted weight gain, which are detrimental to overall health. Focusing on eating a healthy, well-balanced diet that you can enjoy, as well as including daily exercise, will put you on the road to wellness.