

# Sugar and Its Role in Cancer

Many people diagnosed with cancer are starting to pay close attention to the foods that they eat. One of the biggest concerns right now is if sugar consumption increases the risk of cancer or promotes cancer growth. In order to provide a definitive answer, more research on this topic is needed. Summarized below is the current understanding of the relationship between cancer and sugar.

## Carbohydrates

Carbohydrates (“carbs”) are a kind of nutrient found in our foods

Foods with carbs include:

- Fruits
- Vegetables
- Grains
- Milk
- Sweets, including sodas, candy, desserts, and fruit drinks

Carbs are broken down into sugar during digestion and used as the body’s primary energy source. This sugar is known as glucose.

The body has to have insulin in order to use glucose for fuel. Insulin is a hormone, or a chemical messenger. It aids the body in moving glucose from the bloodstream into the cells, where the glucose can then be used for energy.

## Sugar and Cancer

Cancer cells use carbs for energy and growth as well. While the first thought may be to stop eating carbs, when this is done the body converts other nutrients into sugar instead. This puts stress on the body. The cancer cells also cannot be “starved” because starving them would also starve the healthy cells.

The kinds of carbs consumed may affect cancer cell growth. Different carbs have varying effects on blood sugar levels. The glycemic index ranks carbs by how they affect your blood sugar.

Carbs that make your blood sugar rise quickly after a meal have a high glycemic index, while those that have a more gradual effect have a lower glycemic index. Eating many foods with a high glycemic index increases the risk for several diseases, including cancer. These foods make your body release more insulin and other substances, which could lead to cancer development and growth.

## Carbs to Eat

As removing carbs from your diet will not aid in preventing cancer cell growth, it is recommended people instead make healthier carb choices.

The chart below demonstrates healthier kinds of carbs. The carbs on the left are less healthy and should be limited. Instead, choose some of the healthier options from the right column.

<b>Carbohydrates to Reduce</b>	<b>Carbohydrates to Consume</b>
Table sugar	Dried fruit (1-2 tablespoons)
Sweetened beverages such as sodas, lemonade, fruit drinks	Low-fat/nonfat milk or soymilk (1 cup)
Desserts	Fresh fruit (1 medium)
Candy	Raw vegetables (1 cup)
White flour	Whole grain flour
White rice	Brown or wild rice
White pasta	Whole grain pasta

There can also be a benefit to eating these healthier carbs with a healthy protein and/or fat.

Pairing the carbs with the protein or fat helps to slow carb digestion. The following foods can be added to carbs as healthy sources of fat and protein:

- Avocado
- Beans, lentils
- Low-fat/nonfat yogurt (plain)
- Nuts and nut butters
- Olive, canola, flaxseed oils
- Salmon, mackerel, albacore
- Soy nuts
- Whey, soy, or brown rice protein powders