

Reliable Cancer Research: Using Science to Separate Fact from Fiction

Do sugar, alcohol and aspartame really cause cancer? AICR breaks down myths and incorrect claims to find truths.

February 4, 2025 By American Institute for Cancer Research and Cara Rosenbloom

Key Takeaways:

- There is a lot of cancer misinformation about food, nutrition and physical activity. AICR uses science to bust myths and provide facts.
- In this blog, incorrect claims like “sugar causes cancer” and “aspartame causes cancer” are explained using science and facts.
- Truths about the links between cancer, alcohol and physical activity are also provided.

In today’s digital age, it’s easy to feel overwhelmed by the volume of cancer information. A quick online search will reveal countless claims about what causes cancer, how to prevent it and what to do if you’re diagnosed. Unfortunately, this information is not always accurate. While some half-truths are silly and harmless, others can lead to unnecessary fear, confusion and even harm.

Backed by research and expert insights, the American Institute for Cancer Research (AICR) uses science to tackle cancer-related myths. From the truth about sugar and cancer to the role of how alcohol really impacts cancer risk, we’re cutting through the noise to bring you reliable, evidence-based answers. AICR separates fact from fiction so you can make informed decisions for your health.

NUTRITION

Myth: I must have red meat in my diet to get enough protein

Truth: You can get enough protein in your diet even if you choose not to eat [red meat](#). There is lots of protein in poultry, seafood, dairy and eggs. Plus, you can choose plant-based protein such as tofu, edamame, beans, lentils, nuts and seeds. Grains and vegetables also add small amounts of protein. If you eat a variety of these foods, you will get enough protein daily.

Myth: Sugar causes cancer

Truth: [Sugar](#) is not a carcinogen, so it does not cause cancer, directly. However, studies show that high sugar consumption is linked to fat accumulation in body tissues where it doesn't belong (such as in the liver and muscles). Additionally, high consumption of sweetened drinks, like sweet tea and soda, is related to higher body weight, which increases the risk of certain cancers.

Regularly eating foods high in added sugars also lead to inflammation and elevated levels of circulating insulin, which can lay the groundwork for cancer to develop. But for now, a direct link from sugar to cancer is not based on strong evidence.

While cutting back on added sugars is a smart choice, you don't need to avoid all sugar entirely. The anxiety of counting every gram of sugar creates unnecessary stress, which can increase the production of hormones that raise blood sugar and suppress immune function. That's counterproductive and can be more harmful than eating a bit of sugar. Celebrate sweets occasionally, without deprivation.

Myth: Aspartame causes cancer

Truth: [Aspartame](#) in products, such as diet soda, is likely safe. While the International Agency for Research on Cancer (IARC) and The Joint FAO/WHO Expert Committee on Food Additives (JECFA) classified aspartame as "possibly carcinogenic to humans," they found limited evidence supporting that claim.

JECFA reviewed the general health and nutrition risks of aspartame at usual consumption levels and found insufficient evidence linking aspartame to the risk of cancer. JECFA concluded that the previously established acceptable daily intake of 0-40mg/kg body weight should not change. That is the equivalent of between nine and 14 cans of diet soda per day, assuming no additional intake from other sources.

AICR's Cancer Prevention Recommendations include limiting sugar-sweetened beverages and choosing mostly water or natural unsweetened drinks such as tea, coffee or fruit-infused water.

Myth: Soy causes cancer

Truth: [Soy foods](#) are safe to eat and do not cause cancer. Studies do not link eating soy to an increased risk of any cancer, including breast cancer. In fact, studies show that soy foods may reduce the risk of developing breast cancer. The AICR/WCRF CUP Global Report on breast cancer survivors rated the evidence as limited suggestive that eating soy is associated with greater survival and decreased recurrence. Studies in women who have been diagnosed with breast cancer show better outcomes with moderate consumption of soy foods. The amount is usually one

or two standard servings of soy per day. That is equal to:

- 1/3 cup tofu
- 1/2 cup tempeh
- 1/2 cup shelled edamame
- 1 cup soy milk
- 1/4 cup soy nuts
- 3/4 cup (6 oz.) soy yogurt

Eating more soy foods per day, beyond that, is not linked with additional improvements.

ALCOHOL

Myth: Wine is a healthier choice than other types of alcohol

Truth: The risk for developing some types of cancer increases with as little as one drink per day, even if you only drink wine. Overall, the greater your [alcohol](#) consumption, the greater your cancer risk. All types of alcohol, including wine, beer and liquor, increase risk of cancer. There is no “better alcohol” when it comes to cancer risk.

For cancer prevention, AICR recommends not drinking alcohol. If you do drink, limit it to no more than two standard drinks a day for men and one standard drink a day for women. One standard drink is:

- 5 ounces of wine
- 12 ounces of regular beer
- 1½ ounces of liquor

Myth: Antioxidants in wine protect against cancer

Truth: While wine does contain antioxidants, it still contains alcohol, which is not beneficial. The more alcohol you drink, the greater your cancer risk — even if the alcohol contains antioxidants. Eating foods that are rich in polyphenols, such as grapes, berries and cherries, is a better way to get more antioxidants than drinking wine.

PHYSICAL ACTIVITY

Myth: Activity needs to be aerobic to have beneficial effects

Aerobic exercise, such as brisk walking, is well known for promoting cardiovascular benefits. It's an integral part of any fitness plan, but it's not the only part! Resistance exercise and stretching offer significant advantages, too.

Your best bet is to include all types of exercise in your physical activity routine. Resistance exercise, such as squats and lunges, helps enhance muscle strength and bone density. Stretching and activities such as yoga are less intense cardiovascular workouts, but are vital because they promote flexibility and balance, help alleviate stress and may contribute to mental well-being.

AICR supports the recommendations made by Moving Through Cancer, an initiative led by the American College of Sports Medicine. They recommend:

- A minimum of 150 minutes per week of aerobic activity
- Two days a week of resistance exercise or strength training
- Stretching as a warmup and cool down activity (before and after exercise)

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