

WHO Says Aspartame May Cause Cancer, What Experts Want You to Know



By [Chantelle Pattemore](#) on July 14, 2023 — [Fact checked](#) by Dana K. Cassell



Aspartame is a common artificial sweetener often used in diet sodas. Sellwell/Getty Images

- **The World Health Organization has classified aspartame as a possible carcinogen.**
- **Aspartame is an artificial sweetener used in products such as diet cola and candy.**
- **However, evidence linking aspartame to cancer remains relatively limited.**
- **It's also thought people have to consume high amounts of aspartame before cancer risk increases.**

The World Health Organization's (WHO) International Agency for Research on Cancer (IARC) has [declared](#) the artificial sweetener aspartame a possible carcinogen.

A carcinogen is defined as a substance that can, or has the potential to cause, cancer. Other ingredients previously declared carcinogenic include [processed meat](#) and [alcohol](#).

"Carcinogenic substances generally increase the risk of cancer because they damage the metabolic cells of the body," explained [Darin Detwiler](#), PhD, a professor of food policy and corporate social responsibility at Northeastern University.

"They also damage the DNA component of the cell, which is directly associated with many biological processes in the body. This leads to cancer."

Being declared a carcinogenic substance doesn't make an ingredient illegal. Rather, it is designed to act as a warning to consumers about the potential side effects of its consumption.

However, some experts have stated that such warnings only create confusion and fear in people about what they can and cannot safely eat.

Why aspartame has been declared a possible carcinogen

In [their report](#), the IARC pointed to three available studies in which “a positive association was observed between consumption of artificially sweetened beverages and risk of [liver cancer](#).”

One of these was a 2022 [French study](#) involving almost 103,000 participants. It found that those who consumed higher-than-average amounts of aspartame each day were at increased risk of developing [breast cancer](#) and obesity-related cancer (such as [liver](#), [kidney](#), and [stomach](#)).

However, the IARC noted that “chance, bias or confounding could not be ruled out as an explanation for the positive findings” in these studies.

The IARC also highlighted the presence of limited evidence from three published animal studies linking aspartame to incidence of tumors, and suggestive evidence that aspartame induces [chronic inflammation](#) — which is [associated](#) with cancer development and progression.

The IARC makes declarations, such as this one on aspartame, based on published scientific research evidence.

“Carcinogens are classified into four categories (1-4), depending on how much evidence is available to link them to human cancer risk,” explained [Kelsey Costa](#), MS, a registered dietitian and health research specialist at the National Coalition on Healthcare (NCHC).

She said that if a substance falls into Category 1, there is strong evidence linking it to human cancer. Category 4, meanwhile, means there is no available evidence the substance can lead to carcinogenic activity.

“Aspartame falls into category 2B, meaning there is limited evidence of human carcinogenic activity,” stated Costa. “Consequently, the IARC considers it to be possibly carcinogenic to humans.”

But aspartame hasn’t always been considered potentially carcinogenic, which is why brands have incorporated it into their products for decades.

“Since 1981, JECFA has said aspartame is safe to consume within accepted daily limits,” said [Tyler Williams](#), CEO of [ASI Food Safety](#).

Numerous [previous studies](#) have not found an association between aspartame intake and increased cancer risk.

“Aspartame is one of the most studied food additives in the human food supply chain, and hundreds of studies have been done to verify its safety,” Williams told Healthline.

“The agency classified it as possibly causing cancer, not probably,” added [Kimberly Gomer](#), MS, a registered dietitian and licensed dietitian nutritionist, and director of nutrition at [Body Beautiful Miami](#). “The distinction is important to note.”

How much aspartame can you safely consume?

The consensus among the experts is that you don’t need to panic if you eat or drink something containing aspartame.

While WHO was undertaking its assessment on aspartame, JECFA (the Joint FAO/WHO Expert Committee on Food Additives) was also reassessing the “safe” levels of aspartame consumption.

This is the third time the committee has done so, with the last evaluation conducted in 2016.

As a result, JECFA has reaffirmed its long-standing recommendation that 0-40 mg per kg of body weight is within the acceptable daily allowance (ADI).

To put this into context, said Gomer, only a very small amount of aspartame is required in a 12-ounce can of [diet soda](#) — about 192 mg, or 0.007 ounces.

This means that an adult weighing 70 kg or 154 lbs would need to drink around 14 cans per day to reach the ADI, presuming they do not consume any aspartame from other food sources.

PepsiCo [told Reuters](#) it has no plans to remove aspartame from its product portfolio.

Unlike IARC, JECFA did not believe there was enough evidence to link aspartame consumption with cancer.

In a statement, [Moez Sanaa](#), DVM, PhD, WHO’s Head of the Standards and Scientific Advice on Food and Nutrition Unit, said: “JECFA also considered the evidence on cancer risk, in animal and human studies, and concluded that the evidence of an association between aspartame consumption and cancer in humans is not convincing.”

[Dr. Francesco Branca](#), director of the Department of Nutrition and Food Safety, WHO, added: “While safety is not a major concern at the doses which are commonly used, potential effects have been described that need to be investigated by more and better studies.”

What to know about aspartame

Aspartame is an artificial sweetener, tasting about 200 times sweeter than sugar. The ingredient “is made from two amino acids – aspartic acid and [phenylalanine](#),” said Gomer.

“It was approved in 1981 by the Food and Drug Administration (FDA) to be used in products as an artificial sweetener,” she explained.

Aside from its super-sweet taste, another reason it’s particularly popular is that it has “virtually no calories,” shared Costa.

Because not much of the ingredient is required to achieve a good hit of sweetness, it’s become a popular addition to many everyday foods and drinks — particularly those labeled “sugar-free”.

These include:

- Diet cola/soda
- Gum
- Candy
- Jello
- Syrup
- Breakfast cereals
- Ice cream
- Ketchup

In addition, you’ll often find it in little packets in cafes and restaurants, where it’s “used to sweeten coffee and tea and sold under the brand names NutraSweet and Equal,” said Gomer.

Williams added that aspartame isn’t regularly incorporated into baked goods as it “loses its sweetness at high temperatures.”

Alternatives to aspartame

Aspartame is often used instead of refined sugar, which has also been linked to numerous [adverse health effects](#).

“It is always a question as to whether it is better to have any artificial sweetener in place of sugar,” stated Gomer. “It is a very individual case-by-case approach to decide which is the best choice.”

In place of either of these, the ideal option is natural sugars, said Costa.

For instance, she revealed that [stevia](#) and [monk fruit](#) are [natural sweeteners](#) that have “zero calories.” And, as plant-based ingredients, they “don’t contain any chemical additives or synthetic ingredients.”

Other natural alternatives include things like [honey](#) and [maple syrup](#). While these are rich in body-friendly [antioxidants](#), explained Costa, they’re also high in calories — so “should be consumed in moderation.”

Takeaway

The World Health Organization has classified the common artificial sweetener aspartame as a possible carcinogen. Aspartame is an artificial sweetener, tasting about 200 times sweeter than sugar. Experts say they are concerned that the WHO classification may cause confusion and that the cancer risk remains mainly for people consuming large amounts of aspartame.

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Written By
Chantelle Pattemore

Edited By
Gillian Mohney

Fact Checked By
Dana K. Cassell

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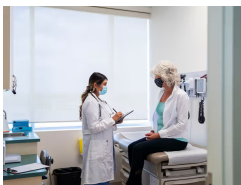
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