

## UCLA HEALTH

**Dear Doctors: There is some folklore that diet pop is bad for you. I gave up sugar and most carbohydrates to help with weight and A1C control, but I continued to drink diet cola. What do the actual studies -- ones that are not from biased sources and are peer-reviewed -- say about diet cola?**

Dear Reader: You are correct that a number of observational studies have linked the regular consumption of artificially sweetened beverages, including diet soda, to adverse health effects. These include weight gain, disruptions to gut health, cardiovascular problems and an increased craving for sweets. More recently, studies have linked the diet soda habit to an increased risk of stroke. News stories have tended to focus on the health problems that were identified in the research. We think it's important to note that these ill effects are linked to the regular and long-term consumption of at least one, and often more than one, serving of diet soda per day.

The findings come from what are known as "observational studies." This is a type of study in which researchers gather and analyze information about the effects of a certain behavior, treatment, diagnostic test, environment or risk factor. They do not intervene in any way. The goal of an observational study is to uncover statistical patterns or trends. However, because human behavior is complex, it's not always possible to say for sure why certain patterns occur.

The data for observational studies is typically drawn from a variety of public health records and from large population studies. A famous example of the latter is the Nurses' Health Study series, which is still ongoing. Established in 1976, these studies have analyzed detailed health, environmental and behavioral data gathered from more than 100,000 female registered nurses between the ages of 30 and 55. This research uncovered early links between tobacco use and heart disease, the role of diet in cancer risk and that being obese or sedentary can raise the risk of developing Type 2 diabetes. The credible studies that you asked about in regard to artificially sweetened beverages follow that model.

Specific research linking frequent diet soda consumption to adverse cardiovascular effects includes an analysis of seven large studies, with a total of 308,420 participants, conducted by scientists in Great Britain. A link to an increased risk of long-term weight gain was found when analyzing data from the San Antonio Heart Study, a 10-year study with 5,000 participants. A study that found evidence tying diet beverage consumption to an increased risk of stroke was conducted by researchers at Albert Einstein College of Medicine in New York. They used the health data of 81,714 women who had participated in the Women's Health Initiative Observational Study.

When it comes to drinking diet soda, we think it's wise to err on the side of caution. Rather than consume it daily, save it for an occasional treat. Many people find that it's the bubbles as much as the sweet taste that they crave. That makes the many varieties of fizzy water that are now available a viable option.

<https://www.uclahealth.org/news/observational-studies-shed-light-on-diet-soda-consumption#:~:text=These%20include%20weight%20gain%2C%20disruptions,were%20identified%20in%20the%20research.>

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