Artificial Sweetener Used in Diet Coke Linked to Cognitive Issues: Study

The changes to the brain may even be passed onto offspring

A popular sugar-alternative has been linked to cognitive issues in a new study.

Researchers from Florida State University, in Tallahassee, found that mice who consumed a fraction of the recommended amount of aspartame had differences in their cognitive performance when compared to those who just drank water.

More worrying is that the rodents appeared to pass on the cognitive deficits to their pups.
Aspartame is a commonly used artificial sweetener in zero-sugar products such as diet soda, ice cream, and other sweet treats. It is most well known for its use in Diet Coke and other zero-sugar Coca-Cola Company products, including Sprite and Fanta.

In July, the World Health Organization ruled that the sweetener was a possible carcinogen. However, some criticized the classification due to a lack of strong evidence.

Scientists, who published their findings in Scientific Reports, gave male mice doses of water with aspartame equivalent to about seven to 15% of the maximum daily consumption amount recommended by the Food and Drug Administration. The researchers then put these mice through a series of tests to evaluate their working memory, learning, and spatial skills.

The aspartame mice consumed either a low dose or a higher dose of aspartame, equivalent to about two to four small, eight ounce cans of soda with aspartame. The researchers found that compared to mice who didn't consume aspartame, these mice had a deficit in spatial learning and memory skills.

In other words, these mice were less able to learn how to navigate their environment, and were less able to keep that information stored in their short-term memory.

While there was a significant difference between mice who did and didn't consume aspartame, the dosage did not seem to matter.

When the researchers bred these mice with female mice that did not consume any aspartame, they found that the offspring had similar deficits in spatial learning and memory. However, when the offspring were bred, the deficits were not passed onto the subsequent generations.

The researchers did not find an association between aspartame consumption and learned helplessness, a trait that indicates depression in mice.

According to the researchers, most of the research around the heritability of aspartame-related effects has been focused on mothers, specifically pregnant people. These results indicate that fathers also have the ability to pass on aspartame-related effects.

"Aspartame’s adverse behavioral effects may be more pervasive [than] currently realized, and aspartame’s safety evaluations should consider potential effects in the directly exposed individuals as well as their descendants," the researchers concluded.

**NEWS POLL**

Do you think artificial sweeteners are generally unsafe?

- Yes, I think so
- Maybe, I’m not sure
- No, I don’t think so
- Other / No opinion