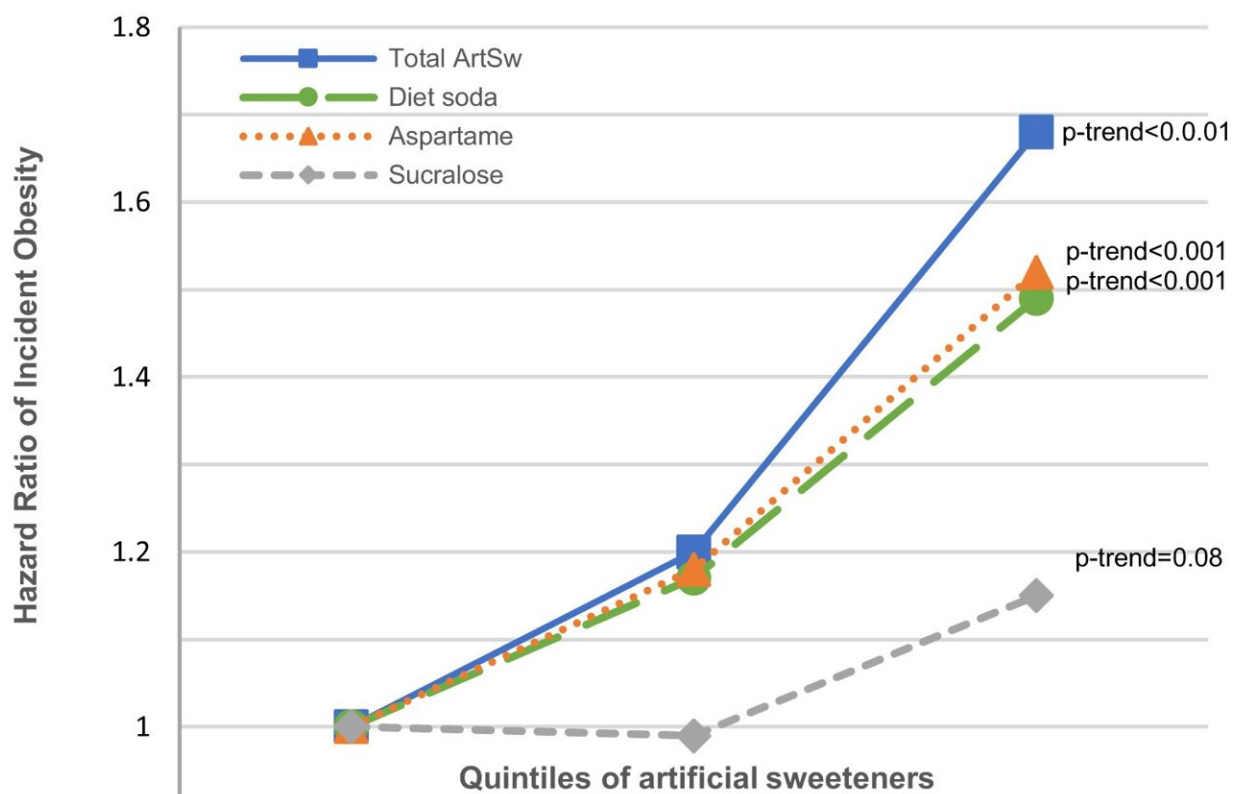


# New study links long-term artificial sweetener intake to increased body fat adipose tissue volume

August 3 2023, by Ezra Xiong



	Q1	Q3	Q5
<b>Total ArtSw</b>	1	1.20 (0.99, 1.45)	1.68 (1.39, 2.03)
<b>Diet soda</b>	1	1.17 (0.97, 1.41)	1.49 (1.24, 1.79)
<b>Aspartame</b>	1	1.18 (0.97, 1.43)	1.52 (1.26, 1.84)
<b>Sucralose</b>	1	0.99 (0.82, 1.20)	1.15 (0.94, 1.40)

ArtSw and obesity incidence. Risk of incident obesity associated with total

ArtSw, aspartame, sucralose, and diet soda intakes [hazard ratios (95% CIs)] over a median 17.5-year period among CARDIA participants (N = 2745, n events = 1142). Credit: *International Journal of Obesity* (2023). DOI: 10.1038/s41366-023-01336-y

Published in the *International Journal of Obesity*, University of Minnesota Medical School and School of Public Health researchers have led a study on the relationship between dietary intake and cardiovascular disease risk factors.

Over 20 years, the research team examined people's regular [dietary intake](#), paying particular attention to non-nutritive sweeteners commonly found in [artificial sweeteners](#). They found that long-term consumption of aspartame, saccharin and diet beverages were linked to increased fat stores in the abdomen and fat within muscle. However, the study found no significant association between the artificial sweetener sucralose and these measures of fat volume.

"This study showed that habitual, long-term intake of total and individual artificial sweetener intakes are related to greater volumes of [adipose tissue](#), commonly known as [body fat](#)," said Brian Steffen, Ph.D., MSCR, a professor in the Department of Surgery at the U of M Medical School and co-investigator on the study. "This was found even after accounting for other factors, including how much a person eats or the quality of one's diet."

The study's findings raise concerns about the recommendations from the American Diabetes Association and the American Heart Association that promote the replacement of added sugars with artificial sweeteners. Based on their results, the researchers recommend considering alternative approaches, as long-term artificial sweetener consumption

may have potential health consequences.

"This is an especially timely study, given the World Health Organization's recent warning of the potential health risks of aspartame," said Lyn Steffen, Ph.D., MPH, a professor in the School of Public Health and principal investigator on the study. "These findings underscore the importance of finding alternatives to artificial sweeteners in foods and beverages, especially since these added sweeteners may have negative health consequences."

The researchers emphasize the need for more studies to better understand the connection between artificial [sweetener](#) intake and increased body fat. Further research is warranted to explore the underlying mechanisms and gain clearer insights into how dietary habits affect metabolic [health](#).

**More information:** Brian T. Steffen et al, Long-term aspartame and saccharin intakes are related to greater volumes of visceral, intermuscular, and subcutaneous adipose tissue: the CARDIA study, *International Journal of Obesity* (2023). [DOI: 10.1038/s41366-023-01336-y](#)

Provided by University of Minnesota Medical School

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