

Eating lots of 'ultra-processed' foods could harm your brain

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Chips, pizza, cookies: Delicious, but a diet full of ultra-processed foods

like these may contribute to brain deterioration, researchers report.

Ultra-processed foods have lots of added and unhealthy ingredients, such as sugar, salt, fat, artificial colors and preservatives. Examples include frozen meals, [soft drinks](#), hot dogs and cold cuts, [fast food](#), packaged cookies, cakes and salty snacks.

These foods have been linked to an increased risk of heart disease, metabolic syndrome and obesity.

Now, scientists in Brazil have tied them to a greater risk of declining brainpower.

The study couldn't prove cause-and-effect. However, "the [cognitive decline](#) could be the result of microvascular lesions in the brain, reduced [brain volume](#) or even systemic inflammation caused by the consumption of ultra-processed foods," theorized study lead researcher [Natalia Gomes Goncalves](#). She's in the Department of Pathology in the School of Medicine at the University of Sao Paulo.

"Dietary choices are a powerful way in helping maintain a healthy brain function," Goncalves said, and it's never too late to make healthy changes.

"Middle age is an important period of life to adopt [preventive measures](#) through [lifestyle changes](#), since the choices we make at this age will influence our older years," she said.

"This does not mean that [even] [older adults](#) will not see results if they adopt a healthier lifestyle," Goncalves added, because "research has shown over and over again that we benefit from healthier choices at any age."

For the study, the researchers collected data on nearly 11,000 men and women, with a mean age of 52, who took part in the Brazilian Longitudinal Study of Adult Health.

During a median follow-up of eight years, participants who ate more than 20% of daily calories from ultra-processed foods had a 28% faster decline in global cognition and a 25% faster decline in executive function, Goncalves said. This association was stronger for adults aged 35 to 59, compared with adults older than 59, she said.

"Executive function is related to our ability to plan and execute goals, and global cognition is the combination of all cognitive domains we tested, including the executive function, verbal fluency and memory. Therefore, the decline we found in cognitive function is something that could interfere with our daily tasks," Goncalves said.

Eating lots of ultra-processed foods can lead to obesity, she said. But even after taking obesity into account, it was the foods, not the weight gain, that was linked to the decline.

Based on these findings, doctors might counsel patients to cook at home using fresh ingredients, instead of buying ready-made meals and snacks, Goncalves said.

More study is needed to confirm whether a high intake of ultra-processed foods really directly harms the brain.

"At this time we do not have neuroimaging to confirm these hypotheses," Goncalves said, but "we do plan future studies to understand the mechanisms by which ultra-processed foods are associated with cognitive [thinking] decline."

The findings were published online Dec. 5 in the journal *JAMA*

Neurology.

One expert not involved with the study pointed out that it's what you don't eat that might affect your thinking.

"How, one might ask, would eating a cheeseburger and [french fries](#) with a soda, munching on fried pork rinds, sharing a bucket of fried chicken, or chowing down a sleeve of commercially made cookies, affect my brain?" said [Dr. Samantha Heller](#), a senior clinical nutritionist at NYU Langone Health in New York City.

When people eat ultra-processed foods on a regular basis, they are unlikely to get the fiber, vitamins, minerals and phytonutrients that their bodies need to be healthy, fight disease and reduce inflammation, she said.

"Ultimately, this can affect how well our brains work because they need a steady supply of these macro- and micronutrients to function properly. We can't mentally muscle our way through poor nutrition," Heller explained.

The effects of eating ultra-processed foods, such as an increased risk for [high blood pressure](#), type 2 diabetes, heart disease and obesity, can all affect the [brain](#) health as well, she said.

"Ultra-processed foods are designed to fire up cravings and desire for these foods, and advertising—which is everywhere—reinforces those urges," Heller said. "It is not the fault of the consumer that they long for ultra-processed foods. But it is up to us to recognize the manipulation by [food](#) companies and to take control of what we choose to eat."

More information: For more on diet and cognitive decline, see the [Alzheimer's Association](#).

Natalia Gomes Gonçalves et al, Association Between Consumption of Ultraprocessed Foods and Cognitive Decline, *JAMA Neurology* (2022).
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