

Doctors doubt sharper brain supplements

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If you've scrolled through wellness-focused social media accounts lately, you've probably come across countless posts and ads claiming various supplements — from vitamins to blue textile dye — can boost brain function and prevent cognitive decline.



Doctors and researchers caution against the hype, saying there's not yet enough data to show any over-the-counter supplement can help preserve brain function, or prevent or slow age-related cognitive decline in healthy adults.

Studies in lab cells and animals — and some small studies in people — suggest a handful of compounds and substances in many OTC supplements may be beneficial for brain function. They included lithium, some B vitamins, vitamin D and omega-3 polyunsaturated fatty acids. But experts say it's too early to recommend supplements for this purpose to the general population.

“There isn't really clear evidence to date of a stand-alone supplement for brain aging,” said Julie Andersen, who studies age-related neurodegenerative diseases at the Buck Institute for Research on Aging in Novato. “But there are several that look promising.”

Some studies suggest folic acid, a type of B vitamin, may improve cognitive performance or prevent further cognitive decline in people who have mild cognitive impairment.

But most of the trials have been small and have caveats — such as not necessarily controlling for other variables, like how much folic acid people were already getting through their diet, Andersen said.

Omega-3 fatty acids and vitamin D have also been studied, mostly in people with mild cognitive impairment, to mixed results, she said. There's not enough evidence to create standards for what dosage or formulation might be beneficial or what age group would benefit the most, the way there is for medications that have undergone more rigorous testing, like vaccines.

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“We’re not there yet,” Andersen said.

One familiar compound that’s generating renewed interest for its potential cognitive benefits is lithium, which was commonly prescribed decades ago to treat depression and schizophrenia.

More recently, researchers have been looking into lithium as a potential intervention to prevent or treat Alzheimer’s.

A 2025 study by researchers at Harvard

Medical School show that lithium deficiency may be an early sign of Alzheimer’s in people, and accelerate memory decline in mice. The findings, published in *Nature*, suggest that replenishing depleted levels of lithium in the brain could potentially prevent and treat Alzheimer’s.

And a handful of studies out of Japan and Brazil over the last 15 years suggest that populations with higher levels of lithium in drinking water may live longer, and that small doses of lithium may slow progression of cognitive impairment in people with Alzheimer’s.

The research to date, though potentially promising, is not strong enough to prompt doctors to recommend their patients take supplements.

“There haven’t been any definitive studies that have shown any supplements are beneficial for prevention or treatment of people who have cognitive impairment,” said Dr. Sharon Sha, chief of the Memory Disorders Division at Stanford Medicine. “So I don’t have any official recommendations for patients to take supplements.”

That being said, some people really want to try something — so if that’s you, make sure supplements won’t interact with your medications and cause harm, said Sha, who treats patients with Alzheimer’s disease and researches treatments for cognitive disorders.

“They may be OK to take, but I wouldn’t formally recommend a supplement because nothing’s been proven thus far,” she said.

Taking a supplement to address a specific nutrient deficiency is different, experts noted. Some people, for instance, are vitamin B-12 deficient, which can cause neurological damage and dementia-like symptoms. A blood test can determine B-12 deficiency, and is part of standard of care for patients with cognitive impairment to rule out the deficiency as the cause for the symptoms.

For now, the best advice for people looking to prevent or slow age-related cognitive decline is to exercise, limit alcohol consumption, eat a healthy diet high in lean protein and fruits and vegetables, get good sleep and seek social stimulation, Sha said.

“That all seems to be common sense, but there’s so much data emerging that supports that those actors really help keep a healthy brain,” she said.