

Taking a daily multivitamin appears to boost brains of adults over 60, but more study is needed

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Multivitamin tablets are photographed in Philadelphia on Thursday, Oct. 13, 2011. A study published Wednesday, May 24, 2023, in the *American Journal of Clinical Nutrition*, shows a daily multivitamin may boost memory function in some people, although the results don't change recommendations about use of the supplements. Credit: AP Photo/Matt Rourke, File

Millions of American adults take daily multivitamins, even though the pills have not been shown to prevent ailments like heart disease or cancer and experts say it's better to get nutrients from food.

The latest research looks at whether taking a daily vitamin can have an effect on memory. [The study found](#) multivitamins may boost memory function in some people, by the equivalent of three years of normal, age-related memory loss.

While the study isn't comprehensive enough to warrant broad recommendations to take vitamins, it provides important information about their use, said Adam Brickman, the Columbia University professor of neuropsychology who led the study.

"Well-designed research studies are showing that there might indeed be some benefits " to taking multivitamins, he said.

Further study is needed to determine exactly which nutrients might make a difference.

Here's what to know about the new research published Wednesday in the *American Journal of Clinical Nutrition*.

ABOUT THE STUDY

Researchers at New York's Columbia University and Brigham and Women's Hospital in Boston tracked more than 3,500 people over age 60 for three years.

The participants were randomly assigned to take a daily multivitamin or a dummy pill. They were evaluated annually for three years with internet-based exams that measure memory function.

One test gave participants a list of 20 words, one at a time, for 3 seconds each, then asked them to type all of the words they remembered immediately and after 15 minutes. The exam measured the function of the hippocampus, an area in the brain that controls learning and memory, Brickman said.

After one year, participants who took daily vitamins had better memory function, moving from correctly recalling 7.10 words at the start to 7.81 words. Participants who got dummy pills went from recalling 7.21 words to 7.65 words. The researchers calculated that the difference amounted to an improvement in memory equal to about three years of normal, age-related change. That improvement was maintained for at least the remaining two years of the study and was more pronounced in people with heart disease, the study found.

The multivitamins may work by providing micronutrients that enhance function of the hippocampus, Brickman said. This is the second large study conducted by the researchers to show that memory improved in older adults who took daily multivitamins.

The study was funded by the National Institutes of Health and also by Mars Edge, a division of Mars, which makes candy, pet food and other products; and Pfizer and Haleon, both makers of multivitamins.

ABOUT MULTIVITAMIN USE

About 60% of U.S. adults and about 35% of children take daily vitamins, according to the Centers for Disease Control and Prevention. The pills are part of nearly \$56 billion Americans spend each year on dietary supplements.

U.S. dietary guidelines recommend that Americans should get their nutrients from food, unless they have specific needs or are advised to

take vitamins by a health care provider. Vitamins can provide missing nutrients in the diet, but taking high amounts can result in side effects ranging from stomach upset to serious heart and liver problems.

The U.S. Preventive Services Task Force, a national advisory group, said last year that current evidence is "insufficient" to assess the risks and benefits of multivitamin supplements to prevent heart disease and cancer. The group recommended against beta carotene and vitamin E for that purpose.

WHAT IT MEANS

The new study shows that vitamin pills may provide missing micronutrients, especially in the diets of older adults, said Robert Hackman, a research nutritionist with the University of California, Davis, who was not involved in the research. About a third of adults older than 60 fail to get adequate vitamins, minerals and fiber from food alone.

Still, the Alzheimer's Association does not recommend the use of multivitamins to reduce the risk of cognitive decline in older adults.

Most of the participants in the new study were white and college-educated, with access and ability to take internet exams, noted Heather Snyder, vice president of medical and scientific relations for the Alzheimer's Association.

"It would be important to see independent confirmation of these results, in particular in more representative study populations," she said.

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