

Higher Vitamin E Levels Drop Alzheimer's Risk

STOCKHOLM, Sweden—Higher plasma levels of vitamin E are associated with a lower risk of Alzheimer's disease in the elderly, according to a new study (*J Alzheimer Dis.* July 2010;20(4):1029-37. DOI: [10.3233/JAD-2010-091450](https://doi.org/10.3233/JAD-2010-091450)). Researchers from the Karolinska Institutet, Stockholm, examined the association between plasma levels of eight forms of vitamin E (alpha-, beta-, gamma- and delta- isomers of tocotrienols and tocopherols) and incidence of Alzheimer's disease in elderly adults. They used a dementia free sample of 232 subjects, all over the age of 80 years, participating in the Kungsholmen Project. Plasma levels of the eight vitamin E isomers were assessed at baseline and after six years, and compared with incident Alzheimer's.

Subjects with the highest levels of total vitamin E (highest tertile) had a 45 percent reduced risk of developing Alzheimer's compared to those in the lowest tertile. Similarly, total tocopherol levels in the highest tertile reduced disease risk by 45 percent, and total tocotrienols in the highest tertile saw a 55 percent reduced risk. However, the researchers found high plasma levels of individual vitamin E isomers did not have a significant impact in reducing Alzheimer's risk; beta-tocopherol had the best effects.

Scientists have speculated vitamin E may be able to support brain health through its role as a fat-soluble antioxidant. However, studies have been inconclusive. A 2008 Cochrane review, for example, found no evidence that supplemental vitamin E (generally alpha-tocopherol alone) could help to fight Alzheimer's disease (*Cochrane Database Syst Rev.* 2008;3:CD002854).

“The vitamin E study, ties in nicely with a number of other studies on vitamin E and tocopherols/tocotrienols in potentially warding off cognitive decline,” said Daniel Fabricant, Ph.D., vice president, global government and scientific affairs, Natural Products Association (NPA). “While debate lingers on regarding the efficacy of vitamin E on risk reduction, and the classic ‘more research is needed to identify the role of vitamin E, if any, in the management of cognitive impairment’ is certainly appropriate here, I think the fact the researchers are looking at an array of tocopherols/tocotrienols, vs. a synthetic or purified vitamin E, in this study, is much more representative of what is found in foods and in dietary supplements, and should help to shape future research in this area and may straighten out some of the inconsistencies in previous studies that looked at the role of vitamin E in cognitive decline.”

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