

Higher folate levels linked to reduced risk for Alzheimer's disease

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Individuals who take in higher levels of the nutrient folate through both diet and supplements may have a reduced risk of developing Alzheimer's disease, according to a report in the January issue of *Archives of Neurology*, one of the JAMA/Archives journals.

By the year 2047, the prevalence of Alzheimer's disease is expected to quadruple, according to background information in the article. Delaying the onset of this neurodegenerative disease would significantly reduce the burden it causes. Researchers suspect that elevated levels of the amino acid homocysteine in the blood, which is linked to a higher risk for cardiovascular disease and stroke, may also increase the risk for Alzheimer's disease. Folate, vitamin B12 and vitamin B6, are important in the body's processing of homocysteine--therefore, deficiencies in these nutrients increase homocysteine levels and may contribute to cardiovascular disease, stroke and dementia.

José A. Luchsinger, M.D., Columbia University Medical Center, New York, and colleagues examined, interviewed and assessed the diets of 965 individuals without dementia between 1992 and 1994 and then followed them for an average of 6.1 years to see if they developed Alzheimer's disease. The participants had an average age of 75.8 and 70.2 percent were women, 32.6 percent African-American, 45.3 percent Hispanic and 22.1 percent white.

During the follow-up period, 192 of the participants developed Alzheimer's disease. When the individuals were divided into four groups

based on the total level of folate they took in through food and supplements and the analysis was adjusted for patient characteristics, comorbid diseases and B12 and B6 intake, the risk of Alzheimer's disease was lower in the groups with higher intake. Neither dietary folate nor supplements alone were significantly linked to Alzheimer's disease risk; only the two in combination appeared to produce an effect. Levels of the vitamins B12 and B6 were not associated with Alzheimer's disease risk.

Higher folate intake was modestly correlated with lower homocysteine levels, "indirectly suggesting that a lower homocysteine level is a potential mechanism for the association between higher folate intake and a lower Alzheimer's disease risk," the authors write.

Definitive conclusions about the role of folate in the development of Alzheimer's disease cannot yet be made, they continue. The findings of this study are in contrast to those of some other research, and other compounds (such as hormones) perceived to reduce the risk for dementia in observational studies did not do so in randomized trials. "Thus, the decision to increase folate intake to prevent Alzheimer's disease should await clinical trials," they conclude.

Source: JAMA and Archives Journals

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