

Calcium supplements linked to dementia risk in women with certain health conditions

17 August 2016



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According to a new study, calcium supplements may be associated with an increased risk of dementia in older women who have had a stroke or other signs of cerebrovascular disease. The research is published in the August 17, 2016, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

Cerebrovascular disease is a group of disorders that affect blood flow in the brain. These diseases, including stroke, are the fifth leading cause of death in the United States and increase the risk of developing dementia.

"Osteoporosis is a common problem in the elderly. Because calcium deficiency contributes to osteoporosis, daily calcium intake of 1000 to 1200 mg is recommended. Getting this recommended amount through diet alone can be difficult, so [calcium supplements](#) are widely used," said study author Silke Kern, MD, PhD with the University of Gothenburg in Sweden. "Recently, however, the use of supplements and their effect on health has

been questioned."

The study involved 700 dementia-free women between the ages of 70 and 92 who were followed for five years. Participants took a variety of tests at the beginning and end of the study, including tests of memory and thinking skills. A CT brain scan was performed in 447 participants at the start of the study.

Scientists also looked at the use of calcium supplements in the participants and whether they were diagnosed with dementia over the course of the study. A total of 98 women were taking calcium supplements at the start of the study and 54 women had already experienced a stroke. During the study, 54 more women had strokes, and 59 women developed dementia. Among the women who had CT scans, 71 percent had lesions on their brains' white matter, which is a marker for [cerebrovascular disease](#).

The study found that the women who were treated with calcium supplements were twice as likely to develop dementia than women who did not take supplements. But when the researchers further analyzed the data, they found that the [increased risk](#) was only among women with cerebrovascular disease. Women with a history of stroke who took supplements had a nearly seven times increased risk of developing dementia than women with a history of stroke who did not take calcium supplements. Women with white matter lesions who took supplements were three times as likely to develop dementia as women who had white matter lesions and did not take supplements. Women without a history of stroke or women without [white matter](#) lesions had no increased [risk](#) when taking calcium supplements.

Overall, 14 out of 98 women who took supplements developed dementia, or 14 percent, compared to 45 out of 602 women who did not take supplements, or 8 percent. A total of six out of 15

women with a history of stroke who took supplements developed dementia, compared to 12 out of 93 women with a history of stroke who did not take supplements. Among the [women](#) with no history of [stroke](#), 18 out of 83 who took supplements developed dementia, compared to 33 out of the 509 who did not take supplements.

"It is important to note that our study is observational, so we cannot assume that calcium supplements cause [dementia](#)," said Kern. The author also noted that the study was small and results cannot be generalized to the overall population, and additional studies are needed to confirm the findings.

Kern noted that calcium from food affects the body differently than calcium from supplements and appears to be safe or even protective against vascular problems.

Provided by American Academy of Neurology

APA citation: Calcium supplements linked to dementia risk in women with certain health conditions (2016, August 17) retrieved 1 June 2021 from <https://medicalxpress.com/news/2016-08-calcium-supplements-linked-dementia-women.html>

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