

YAHOO NEWS

Clear Link Found Between Vitamin D Deficiency and Alzheimer's Disease



Beth Greenfield Senior Writer Aug 07, 2014

Older adults who are severely deficient in vitamin D may be more than twice as likely to develop dementia or Alzheimer's disease than those who don't have a deficiency, according to the largest [study](#) of its kind, published Wednesday in the journal *Neurology*.

"We expected to find an association between low Vitamin D levels and the risk of dementia and Alzheimer's disease, but the results were surprising — we actually found that the association was twice as strong as we anticipated," noted lead researcher David Llewellyn of the University of Exeter Medical School in a [news release](#).

Llewellyn, who could not be reached for comment by Yahoo Health, looked at several years worth of data on 1,658 Americans ages 65 and older who had taken part in the National Heart, Blood and Lung Institute's [Cardiovascular Health Study](#). He and his team found that adults who were just moderately deficient in vitamin D had a 53 percent increased risk of developing dementia — the general term for any severe decline in mental ability — while the risk jumped to 125 percent for those who had a severe deficiency. Similarly, for Alzheimer's disease — the most common type of dementia — the moderately deficient adults were 69 percent more likely to develop it, while the severely deficient had a 122 percent increased risk.

"Clinical trials are now needed to establish whether eating foods such as oily fish or taking vitamin D supplements can delay or even prevent the onset of Alzheimer's disease and dementia," Llewellyn said.

"We need to be cautious at this early stage, and our latest results do not demonstrate that low vitamin D levels cause dementia. That said, our findings are very encouraging, and even if a small number of people could benefit, this would have enormous public health implications given the devastating and costly nature of dementia."

Currently, more than five million Americans are living with Alzheimer's disease, which is the sixth leading cause of death in this country, according to the Chicago-based [Alzheimer's Association](#). One in three seniors dies with Alzheimer's or another form of dementia. "We think this study is important," Keith Fargo, director of scientific programs and outreach with the Alzheimer's Association (a major funder of Llewellyn's research), told Yahoo Health in response to the findings. "It's a relatively large study, and it looks like it does show a pretty substantial link.... It just doesn't show us why there is a link." One hypothesis, Fargo noted, is that the brain — including the hippocampus, which is the first area to break down with Alzheimer's — is full of vitamin D receptors.

There has been a growing body of research on the disease's connection with vitamin D — the main sources of which are sunshine and supplements, with minor sources including egg yolks and oily fish like salmon and sardines. Earlier this year, a [study](#) out of Denmark, for example, also showed a link between Alzheimer's disease prevalence and low levels of vitamin D, while earlier studies conducted

in [Australia](#) and France found tenuous connections between taking doses of vitamin D and having an improved memory. The vitamin has also been linked, in various studies, to preventing asthma, diabetes, and cancer.

“People tend to not believe vitamin D news, because it seems too good to be true,” John Cannell, MD, executive director of the California-based nonprofit [Vitamin D Council](#), told Yahoo Health. “But vitamin D has a profound mechanism of action, as it’s really a steroid hormone that turns genes on and off, and no other vitamin works that way. There are at least 1,000 different genes directly influenced by vitamin D.” The council recommends a combination of cautious sun exposure combined with supplements in winter months.

Cannell called the new study’s findings “pretty exciting,” mainly because of its size and structure. “It’s important because it’s the first cohort study of a large population — meaning that it’s forward-looking, having followed people over several years,” he said. “The next step is a randomized controlled trial, but this is as close as you can get without that.”