

Higher levels of triglycerides linked to lower risk of dementia

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Older people who have higher levels of triglycerides, a type of fat, may have a lower risk of dementia and a slower cognitive decline over time compared to people who have lower levels, according to new research

published in the October 25, 2023, online issue of *Neurology*. While the study found a link, it does not prove that higher levels of triglycerides prevent dementia.

Triglycerides are [fatty acids](#) and are the most common type of fat in the blood. Triglycerides contribute up to 95% of dietary fats, which are the main energy source of the brain.

"Higher triglyceride levels may be reflective of better overall health and lifestyle behaviors that would protect against [dementia](#)," said study author Zhen Zhou, Ph.D., of Monash University in Melbourne, Australia. "Our findings suggest that triglyceride levels may serve as a useful predictor for dementia risk and [cognitive decline](#) in older populations."

Researchers used health care data to identify 18,294 people in one cohort with an average age of 75 who did not have a prior diagnosis of Alzheimer's disease or dementia. Participants were followed for an average of six years. During that time, 823 people developed dementia.

Researchers looked at participants' measurements of total cholesterol, triglycerides, [low-density lipoprotein cholesterol](#) (LDL) and [high-density lipoprotein cholesterol](#) (HDL) each year of the study. Then they divided the participants into four groups based on fasting triglyceride levels. Of the total group, average triglycerides were 106 milligrams per deciliter (mg/dL). For adults, a normal or healthy triglyceride level is below 150 mg/dL.

After adjusting for variables that could affect risk of dementia including education and cholesterol-lowering treatments, researchers found every doubling of triglyceride levels was associated with an 18% lower risk of developing dementia.

The lowest triglyceride group had levels of less than 62 mg/dL. The second group had levels of 63 to 106 mg/dL. Compared to the lowest group, the second group was 15% less likely to develop dementia. The third group had levels of 107 to 186 mg/dL. Compared to the lowest group, they were 24% less likely to develop dementia. The fourth group had levels of 187 mg/dL or higher. Compared to the lowest group, they were 36% less likely to develop dementia.

Of the 1,416 people in the lowest triglyceride group, 82 people (6%) developed dementia. Of the 7,449 people in the second group, 358 people (5%) developed dementia. Of the 7,312 people in the third group, 310 (4%) developed dementia. Of the 2,117 people in the fourth group, 73 people (3%) developed dementia.

The researchers also validated their results in another dataset comprised of 68,200 [older people](#) from the U.K. Among them, 2,778 people developed dementia over an average time of 12 years. They observed a consistent result that shows a 17% decreased risk of dementia with every doubling of triglyceride levels.

Researchers also found that higher triglycerides were also associated with slower decline in composite cognition, a combined result from tests of global function, psychomotor speed, language and executive function and memory over time.

"Future studies are needed to investigate whether specific components within [triglycerides](#) may promote better cognitive function, with the hope of developing new preventive strategies," Zhou said.

A limitation of the study was researchers looked only at people 65 and older who had no cognitive issues initially, so the findings are not generalizable to other populations.

More information: Zhen Zhou et al, Association Between Triglycerides and Risk of Dementia in Community-Dwelling Older Adults: A Prospective Cohort Study, *Neurology* (2023). DOI: 10.1212/WNL.00000000000207923 , [dx.doi.org/10.1212/WNL.00000000000207923](https://doi.org/10.1212/WNL.00000000000207923)

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