

Erectile dysfunction drugs may be linked to reduced risk of Alzheimer's disease

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The drugs used to treat erectile dysfunction may also be associated with a reduced risk of Alzheimer's disease, according to a study published in *Neurology*. The study does not prove that erectile dysfunction drugs

reduce the risk of Alzheimer's disease. It only shows an association.

Erectile dysfunction drugs, which work by dilating blood vessels to allow more blood to flow through, were first developed to treat [high blood pressure](#). A new study suggests that the drugs may be tied to a reduced risk of Alzheimer's disease.

"Although we're making progress with the new treatments for Alzheimer's disease that work to clear amyloid plaques in the brain for people with early stages of the disease, we desperately need treatments that can prevent or delay the development of Alzheimer's disease," said study author Ruth Brauer, Ph.D., of the University College London in the United Kingdom. "These results are encouraging and warrant further research."

The study involved 269,725 [male participants](#) with an average age of 59 who were newly diagnosed with erectile dysfunction. Participants did not have any memory or thinking problems at the start of the study. They were then followed for an average of five years. The study compared the 55% of the participants who had prescriptions for erectile dysfunction drugs to the 45% who did not have prescriptions.

During the study, 1,119 people developed Alzheimer's disease.

Among the participants taking erectile dysfunction drugs, 749 developed Alzheimer's disease, which corresponds to a rate of 8.1 cases per 10,000 person-years. Person-years represent both the number of people in the study and the amount of time each person spends in the study. Among those who did not take the drugs, 370 developed Alzheimer's disease, which corresponds to a rate of 9.7 cases per 10,000 person-years.

Once researchers adjusted for other factors that could affect the rate of Alzheimer's disease, such as age, smoking status and [alcohol](#)

consumption, they found that people who took erectile dysfunction drugs were 18% less likely to develop Alzheimer's than people who did not take the drugs.

The association was strongest in those who were issued the most prescriptions over the study period.

"More research is needed to confirm these findings, learn more about the potential benefits and mechanisms of these drugs and look into the optimal dosage," Brauer said. "A randomized, controlled trial with both male and female participants is warranted to determine whether these findings would apply to women as well."

The study was based on prescription records. A limitation of the study is that researchers did not have information on whether participants actually filled the prescriptions and used the drugs.

More information: Matthew Adesuyan et al, Phosphodiesterase Type 5 Inhibitors in Men With Erectile Dysfunction and the Risk of Alzheimer Disease, *Neurology* (2024). DOI: 10.1212/WNL.0000000000209131 , <https://doi.org/10.1212/WNL.0000000000209131>

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