

# People with untreated high blood pressure may have higher risk of Alzheimer's disease

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People 60 and older with untreated high blood pressure may have an increased risk of Alzheimer's disease compared to both people who have been or are being treated for high blood pressure as well as people

without the chronic condition.

The new research, a meta-analysis, is published in the August 14, 2024, online issue of *Neurology*. The results do not prove that untreated [high blood pressure](#) causes Alzheimer's disease, they only show an association.

"High blood pressure is a leading cause of stroke and [cerebrovascular disease](#), and yet it can be controlled with medication, reducing a person's risk of these diseases," said author Matthew J. Lennon, MD, Ph.D., of the University of New South Wales in Australia.

"Taking blood pressure medications has also been found in previous research to reduce a person's risk of dementias overall, but less is known about how blood pressure affects a person's risk of Alzheimer's disease. Our meta-analysis looked at [older people](#) and found that not treating blood pressure may indeed increase a person's risk."

For the meta-analysis, researchers looked at 31,250 people with an average age of 72 who were enrolled in 14 studies that measured cognitive change and dementia diagnosis over time.

Participants were from Australia, Brazil, China, France, Germany, Greece, Italy, Japan, Korea, Nigeria, the Republic of Congo, Spain, Sweden and the United States. Participants were followed for an average of four years and 1,415 developed Alzheimer's disease.

For each participant, researchers looked at blood pressure measurements, high blood pressure diagnosis and the use of blood pressure medication. They found 9% had untreated high blood pressure, 51% were taking blood pressure medications, 36% did not have high blood pressure and 4% were noted as uncertain.

After adjusting for factors such as age, sex and education, researchers found people with untreated high blood pressure had a 36% increased risk of Alzheimer's disease when compared to people without high blood pressure, and a 42% increased risk of Alzheimer's when compared to people with the condition who were taking blood pressure medications.

"Our meta-analysis that included people from around the world found that taking [blood pressure medications](#) was associated with decreased risk of Alzheimer's disease throughout later life," said Lennon. "These results suggest that treating high blood pressure as a person ages continues to be a crucial factor in reducing their risk of Alzheimer's disease."

A limitation of the [meta-analysis](#) was that definitions for high blood pressure varied by location, which could lead to possible discrepancies in diagnosis.

**More information:** *Neurology* (2024).  
[neurology.org/doi/10.1212/WNL.0000000000209715](https://doi.org/10.1212/WNL.0000000000209715)

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