

What factors predict when older adults will stop driving?

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What factors lead older adults to stop driving? A new study followed older adults who had no memory or thinking problems to examine this question. The study is published in the May 22 online issue of

Neurology.

"Alzheimer's disease develops over a long time—people may have a 10- to 15-year period where they have no symptoms, but the disease process is developing in the brain," said study author Ganesh M. Babulal, Ph.D., OTD, of Washington University School of Medicine in St. Louis, Missouri. "We were looking to see whether [older adults](#) with signs of early Alzheimer's would be more likely to stop driving than people without these signs."

The study involved 283 participants with an average age of 72 who drove at least once a week. They had [cognitive tests](#) at the start of the study and then every year for an average of 5.6 years. They also had brain scans and [cerebrospinal fluid](#) collected at the start of the study and then every two to three years.

During the study, 24 people stopped driving, 15 people died and 46 people developed [cognitive impairment](#).

Among the people who stopped driving, nine people had a neurologic condition, four had significant vision changes, eight had general health issues, and three moved to an assisted living facility.

Among the whole group, about one-third of the people met the criteria for preclinical Alzheimer's based on levels of biomarkers for the disease—amyloid plaques and [tau tangles](#)—in the brain imaging and cerebrospinal fluid.

The researchers found that female participants, people who developed cognitive impairment and people who performed worse on the cognitive tests were more likely to stop driving than male participants, those with no cognitive problems and those who performed better on the cognitive tests. The amount of [amyloid plaques](#) and tau tangles people had in their

brains and spinal fluid did not predict stopping driving.

Of the total participants, 58% of women stopped driving compared to 42% of men. Of the 48 people who developed cognitive impairment, 27% stopped driving compared to 4% who did not develop cognitive impairment, and 30% of people with low cognitive test scores stopped driving compared to 7% of those with higher scores.

Once researchers adjusted for other factors that could affect stopping driving, they found that [female participants](#) were four times more likely than male participants to stop driving. People who met the criteria for cognitive impairment were 3.5 times more likely to stop driving than those with no cognitive problems. People with lower scores on the cognitive tests were 30% more likely to stop driving than those with higher scores.

"This study provides further validation for the recommendations of the American Academy of Neurology's 2010 guideline that progressing to [mild cognitive impairment](#) based on the Clinical Dementia Rating scale increases the risks associated with driving and is when people should be counseled to no longer drive," said Richard M. Dubinsky, MD, MPH, of the University of Kansas in Kansas City, who wrote an editorial accompanying the study and was an author of the [2010 AAN guideline](#).

A limitation of the study was that researchers did not have information on other medical conditions, any decline in vision or hearing, or use of medications such as antidepressants and sedatives, all of which are associated with the risk of failing a road test.

More information: Ganesh M. Babulal et al, Predicting Driving Cessation Among Cognitively Normal Older Drivers, *Neurology* (2024).

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