

Driving errors increase with age among older drivers

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Even healthy adults with a safe driving record tend to make more driving errors as they age, including potentially dangerous mistakes, such as failing to check blind spots, according to a study published by the American Psychological Association.

Most studies of older drivers have focused on people with dementia or other conditions that might impair their performance behind the wheel. This study, conducted in Australia, comprised 266 volunteers age 70 to 88 who showed no signs of dementia, lived independently and drove at least once a week. The results could have implications for skill-based driving tests and training for older drivers, along with the design of roads, signs and vehicles, the researchers said. The study was published online in the APA journal *Neuropsychology*.

"We wanted to develop evidence-based measures for detecting unsafe older drivers and show how specific <u>cognitive abilities</u> relate to different types of driving errors," said lead researcher Kaarin J. Anstey, PhD, a psychologist who directs the Aging Research Unit at Australian National University. "We hope that <u>policy decisions</u> in this field will be informed by the best possible science."

Normal aging causes various declines in brain functioning and those distinct changes could affect driving skills, including the ability to focus despite distractions on the road, make quick decisions and avoid other vehicles or pedestrians, the study found.



Study participants completed a battery of <u>cognitive tests</u> and questionnaires about their driving history before they drove on a 12-mile route through city and suburban streets in Brisbane. A professional driving instructor rode in the car, which was equipped with an extra brake on the front passenger side for safety. An occupational therapist sat in the back seat and scored the drivers on various errors, including failure to check blind spots, speeding, sudden braking without cause, veering and tailgating.

"All types of driving errors increased with age, and the errors weren't restricted to a small group of unsafe drivers or those with a history of crashes," Anstey said. "It is important to note that there is a large variation in cognitive ability, so some people still have a high level of functioning in later life even if they have suffered some cognitive declines related to normal aging."

While men tend to think they are better drivers, they didn't fare any better on the tests than women, Anstey found. Blind spot errors were the most common mistake, followed by veering across lanes and failure to use turn signals. During the tests, 17 percent of the drivers made critical and potentially hazardous mistakes that required the driving instructor to hit the brake or grab the steering wheel.

The rate of critical errors during the driving test quadrupled from the youngest group, age 70 to 74, which had an average of less than one critical error, to the oldest group, age 85 to 89 with an average of almost four critical errors. There were no crashes during the tests, but participants who had reported an accident during the five years before the study also had a higher rate of critical errors.

Older drivers could remain safe on the roads longer with training on checking blind spots and other driving skills that might decline with aging, Anstey said. The participants had their vision checked before the



driving test, but Anstey said more research is needed to determine if visual ability contributed to the high rate of blind spot errors. The study was co-authored by Joanne Wood, PhD, a professor of optometry at Queensland University of Technology.

Despite the study results, Anstey doesn't believe that driver's licenses should be restricted based on age. "In other research, we have shown that age-based restrictions reduce overall driving rates among older adults, but they don't reduce the rate of driving by those with cognitive impairments," she says. "We need evidence-based driver screening tests along with training for <u>older drivers</u> and alternative transportation for those who can no longer drive safely."

Provided by American Psychological Association

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