

New simulator for older drivers is put to the test

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University of Adelaide researchers are hoping that a new computer-based driving simulation will help lead to accurate, low-cost testing of older drivers' ability to stay safe on the roads.

Adelaide motorists aged 65 and over are now being sought for the study, which tests a range of cognitive functions under different conditions.

"Most [older people](#) are safe drivers with low crash risk - age itself doesn't determine someone's fitness to drive, but declining medical, physical and cognitive functions typically associated with ageing have been found to increase crash risk," says Nicole Matas, a PhD student in the University's School of Psychology.

"One way to identify drivers at risk is to look at people's specific abilities. By assessing these through a simulation and quick computerised tests, they can be used to predict whether or not an individual is able to continue driving without risking their own and others' safety."

Reviews of previous research have identified several [cognitive abilities](#) that are related to safe driving performance in older people. "These include visual attention, processing speed, spatial skills, working memory, vision and mental status," says Ms Matas, who is conducting this study for her PhD under the supervision of Professor Ted Nettelbeck and Professor Nick Burns.

Using a simulator at the University of Adelaide's North Terrace campus, older motorists will be asked to "drive" through computer-generated suburban and city areas and respond to hazards along the virtual road. Participants will also undertake a series of cognitive tests aimed at assessing their attention, processing speed, working memory, and peripheral vision processing.

"There's already been a lot of debate in our community about how older drivers should be

tested, at what age and how often. Our research is aimed at putting some science into that debate," Ms Matas says.

"At the end of my project, I'll be producing guidelines on the testing of [older drivers](#). These could be used by authorities to decide on the best and most cost-effective way of helping to keep our roads as safe as possible."

Provided by University of Adelaide

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