

Safe driving period calculated following first-time seizure

August 21 2014, by Anke Van Eekelen



Credit: AI-generated image ([disclaimer](#))

WA neurologists have studied the risk of seizure recurrence while driving in a unique cohort of almost 1400 patients who have experienced their first-ever seizure.

The unprecedented analysis of prospectively collected [quantitative data](#)

on this issue provides a new framework for determining when it is safe to get back behind the wheel.

In their latest publication, Dr Nicholas Lawn and colleagues from the Department of Neurology at Royal Perth Hospital discuss the importance of real-life data in accurately assessing the likelihood of a first [seizure](#)-related accident.

A first-ever seizure is not uncommon among otherwise healthy adults with no epileptic history.

The [lifetime risk](#) of an epileptic fit is at least five per cent and there is a 50 per cent chance it will happen again.

If so, the second seizure is most likely to happen within half a year and would confirm an epilepsy diagnosis.

"The primary reason for a driving restriction is to reduce the risk of a seizure-related accident, but data guiding the appropriate duration of a driving restriction is sparse," Dr Lawn says.

In Australia and Europe, a ban on driving for at least six months is set after a first-ever seizure and no distinction is made between provoked seizures with a known cause and those that cannot be explained.

Such guidelines appear to be opinion-driven decisions by experts, who have used estimates from available records on first seizures going back a few decades.

"Our quantitative cohort data can help define what duration of non-driving would fit with what risk is accepted by the community," Dr Lawn says.

Work based on European formula

The study used a novel formula developed by the European Working Group on Epilepsy and Driving to calculate appropriate durations of non-driving for a range of risk levels.

The research takes into account the possibility of limited car use during the uncertain period in which seizures do not reoccur for everyone.

The acceptance of one hour of driving per day resulted in a calculated period that approximately coincides with the existing [driving](#) ban of six months.

But this calculation only fits if the acceptable community risk was assumed to be three times the risk of a healthy person causing a serious [motor vehicle accident](#).

According to Dr Lawn, this risk level is similar to that accepted for healthy elderly drivers over 75 and significantly lower than the risk of young men below 25, seven times more likely to cause a car crash.

More information: "When is it safe to return to driving following first-ever seizure?" J W L Brown, N D Lawn, J Lee, J W Dunne. *J Neurol Neurosurg Psychiatry* jnnp-2013-307529. Published Online First: 25 April 2014 [DOI: 10.1136/jnnp-2013-307529](https://doi.org/10.1136/jnnp-2013-307529)

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