

# Seizures while driving and why it's important to diagnose epilepsy ASAP

June 7 2023

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Prior to being diagnosed with epilepsy, 5% of people with a type of epilepsy called focal epilepsy had a seizure while driving, according to a new study published in the June 7, 2023, online issue of *Neurology*.

Focal epilepsy accounts for more than half of all cases of epilepsy. People with this form of epilepsy have recurring seizures that affect one half of the brain.

"Seizures while driving pose substantial risks for those experiencing them and for others on the [road](#)," said study author Jacob Pellinen, MD, of the University of Colorado in Aurora and a member of the American Academy of Neurology.

"While medication may make it possible for some people with epilepsy to safely drive, they must first be diagnosed. Our study sought to define how often seizures happen while driving before a diagnosis and then how long it takes before a person is diagnosed. Our results can then help inform how to diagnose people sooner, with a goal of lowering the number of prediagnosis seizures on the road."

For the study, researchers identified 447 people with [focal epilepsy](#). Participants had an average age of 29 when they experienced their first [seizure](#).

Researchers looked at participants' medical records prior to their epilepsy diagnoses. They found 23 people, or 5% of participants, experienced one or more seizures while driving, for a total of 32 seizures while driving prior to diagnosis.

Of the 23 people, seven people, or 30%, had more than one seizure while driving prior to diagnosis. For six people, or 26%, their seizure while driving was their first-ever seizure.

The consequences of these seizures while driving included 19 [motor vehicle accidents](#) and 11 hospitalizations for injuries ranging from a tongue bite and a dislocated thumb to a near drowning.

Researchers found that the average time from experiencing a first seizure to experiencing a seizure while driving was 304 days. The average time between a person's first seizure while driving to being diagnosed with epilepsy was 64 days.

People who were employed had a four times greater risk of experiencing a seizure while driving prior to diagnosis than those who were not employed.

People who experienced non-motor seizures, where movement stops and a person may simply stare, had a nearly five times greater risk of experiencing a seizure while driving prior to diagnosis than those who had a motor seizure, which can include sustained jerking movements or muscles becoming weak or alternately becoming rigid.

"Considering the United States has a population of just over 200 million people between ages 16 and 64, and considering the annual incidence of epilepsy, there are roughly 126,180 driving-age people in the country diagnosed with epilepsy each year," said Pellinen. "From our study, we estimate nearly 6,500 people per year may experience prediagnosis seizures while driving in the United States alone, leading to nearly 4,000 possible motor vehicle accidents and over 2,200 hospitalizations. Much of this may be preventable by earlier [diagnosis](#)."

A limitation of the research was that some seizure history for participants was self-reported, and they may not have remembered all details correctly. Pellinen noted this may also have led to underreporting of the number of [seizures](#) while driving. In addition, the study was small and examined only one type of [epilepsy](#). Future studies are needed in

larger groups of people.

**More information:** *Neurology* (2023).

Provided by American Academy of Neurology

Citation: Seizures while driving and why it's important to diagnose epilepsy ASAP (2023, June 7)  
retrieved 8 May 2024 from

<https://medicalxpress.com/news/2023-06-seizures-important-epilepsy-asap.html>

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