

## Plain English Publication Summary

Publication title: [Risk of Unnatural Mortality in People With Epilepsy](#)

### Publication details (Vancouver format)

Gorton HC, Webb RT, Carr MJ, DelPozo-Banos M, John A, Ashcroft DM. Risk of Unnatural Mortality in People With Epilepsy. *JAMA Neurol*. Published online April 09, 2018. doi:10.1001/jamaneurol.2018.0333

### What was known before your paper was published?

It was already known that people with epilepsy are at a higher risk of death than those without epilepsy but we didn't know much about the risks of different causes of death.

### What did you do?

We used two large datasets from general practices in England and Wales that were linked to death statistics. These datasets were anonymised which means we cannot identify people from them. We found people in the datasets who had epilepsy and compared them to people who did not. We followed them over time to see whether people with epilepsy were more likely to die by suicide or accident. To do this, we had to account for other factors which might make one group more or less likely to die, for example "age". We also looked at the death records of people who died due to poisoning to see which medications were involved.

### What did you find?

Unnatural death (mainly accident and suicide) accounts for a very small number of all deaths. We did find that people with epilepsy are three times more likely to die by accident and twice as likely to die by suicide as people without epilepsy. People with epilepsy are five times more likely to die specifically by accidental poisoning with medication, and three times more likely to die by intentionally poisoning themselves with medication. The medication groups that were most commonly used in poisoning were a particular type of painkiller and some medicines used for mental illness. Even among people with epilepsy, antiepileptic drugs were not used that commonly—they were involved in about 10% of poisoning deaths in people with epilepsy.

**What insights/knowledge did you add?**

We found out that people with epilepsy are more likely to die from unnatural causes than people without epilepsy, especially due to poisoning. We recommend that doctors, nurses and pharmacists should work with people with epilepsy and their carers to identify accident risks and any suicidal feelings or actions. They should also be mindful of the other medication they prescribe to people with epilepsy to treat other conditions that these individuals experience because these medicines might be used in poisoning.