

Expert calls for awareness, research of sudden death in patients with epilepsy

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Over time, epileptic seizures can lead to major health issues, including significant cognitive decline and even death, warns Orrin Devinsky, MD, professor, Departments of Neurology, Neurosurgery and Psychiatry at NYU Langone Medical Center. In a review article in the Nov. 10, 2011 issue of the *New England Journal of Medicine*, Devinsky addresses the magnitude of sudden, unexpected death in epilepsy (SUDEP) and offers guidance to patients, physicians and families of those with epilepsy about the risk factors, possible causes and interventional measures.

"Although most people with epilepsy live full and productive lives, doctors may too readily assure patients that seizures will never hurt the brain and are never fatal," writes Devinsky. "If patients are aware that seizures can be deadly, they may be more motivated to adhere to antiepileptic [drug regimens](#) and avoid [lifestyle choices](#) that increase the likelihood of them."

According to the article, SUDEP usually occurs in chronic, severe cases of epilepsy. But it is estimated that 2.7 million Americans suffer from some form of epilepsy and, even under [specialized care](#), 25 percent of these patients fail to achieve adequate control of their seizures, making therapies less effective and requiring more intensive and comprehensive care than is available through a regular neurologist.

According to Devinsky, the rate of SUDEP increases with the duration and severity of epilepsy. While the exact mechanisms are not known, Devinsky identifies several risk factors associated with known cases of

SUDEP, which includes a high prevalence of seizure just prior to an event, an impaired respiratory condition, slowing or shutting down of cerebral functions and [cardiac events](#).

Devinsky points to a long-term cohort study conducted in Finland of 245 patients diagnosed with epilepsy as children – which found that SUDEP may have been responsible for 38 percent of the 60 deaths that occurred over the 40 year span. The overall incidence of SUDEP is likely underestimated, adds Devinsky, because of incomplete databases and the fact that the cause may not be appropriately identified by coroners, medical examiners and physicians who are unaware of the diagnostic criteria for SUDEP. A reduction in sudden deaths among patients with epilepsy may be achieved through:

- Increased awareness by the general public and medical community
- Improved prevention and treatments of epilepsy
- Further development and use of devices that detect seizures and can alert caretakers
- Improved understanding of the mechanisms of SUDEP
- Conducting interventional trials to prevent the progression of life-threatening seizure to sudden death

Provided by New York University School of Medicine

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