



EPILEPSY AND SLEEP

- **Certain types of epilepsy produce seizures during sleep or soon after awakening.**
- **Sleep problems known as parasomnias can be hard to distinguish from epileptic seizures.**
- **Sleep patterns influence epilepsy.**
- **Inadequate sleep and sleep disorders can increase the risk of epileptic seizures.**
- **Creating good bedtime routines and habits that improve sleep quantity and quality can help.**

Note: All words that are underlined relate to topics in the Sleep Health Foundation Information Library at www.sleephealthfoundation.org.au

1. Epileptic seizures during sleep or shortly after awakening

Some types of epilepsy produce seizures during sleep or soon after waking. Many of the sleep related epilepsies commence in childhood. One of these, epilepsy with centrotemporal spikes, produces recurrent seizures, of which 70-80% occur only during sleep.

The type of epileptic seizures normally seen during sleep are known as frontal lobe onset seizures. This group of seizures can produce abrupt movements of relatively short duration that can be difficult to distinguish from sleep disorders known as parasomnias (for more information on parasomnias see the fact sheets on [REM Sleep Behaviour Disorder](#), [Sleep Terrors](#), [Sleepwalking](#) and [Nightmares](#)). The recognition of a family with nocturnal frontal lobe epilepsy led to the discovery of the first epilepsy gene.

Juvenile (juvenile indicates teenage onset) myoclonic epilepsy is often troublesome in the first one to two hours after waking up from sleep. Seizures can take the form of convulsive seizures (i.e., generalised tonic clonic seizures) or brief startles (i.e., myoclonic seizures). Brief startle type seizures often come before the development of convulsive seizures. Both types of seizures occur more frequently when sleep loss occurs.

2. Influence of sleep on epilepsy

Sleep patterns influence epilepsy. Many people with epilepsy recognise this association over time. They find that improving the quality of their sleep reduces their chance of seizures. At the time of diagnosis of epilepsy, it can be difficult to accept that our everyday sleep might be important in controlling seizure activity.

3. Quantity and quality of sleep and epileptic seizures

Epileptic seizures are more likely to occur during periods of sleep loss. The amount of sleep loss that can trigger epileptic seizures varies from person to person. This observation is occasionally used to assist in the diagnosis of epilepsy. Diagnosis involves monitoring electrical activity in the brain using a tool called an electroencephalogram (EEG) recording. Approximately 50% of people with epilepsy have a normal EEG the first time it is measured. However, when the EEG recording is done after a period of deliberate sleep loss, for example allowing only three hours of sleep the night before, then there is more chance of recording epilepsy-related EEG activity.

Hours of sleep is not the only aspect to consider. Poor quality sleep also increases the risk of epileptic seizures. [Obstructive Sleep Apnea](#) is a sleep disorder which can provoke seizures in people with epilepsy.



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Although less common, Restless Legs Syndrome is another sleep disorder that can trigger seizures in people with epilepsy.

Epilepsy may disrupt normal sleep patterns and some people with epilepsy feel it is related to their poor sleep. Similarly, some changes in sleep patterns have been linked to the medications used to treat epilepsy. But the significance of these findings is not yet well understood. If you are concerned about whether your medication may be disrupting your sleep or causing fatigue DO NOT stop your medication but DO speak to your doctor about changing medications. There are many anti-seizure medications available and there may be a better option for you! Stopping medication abruptly, without medical supervision, may be dangerous. It can trigger seizures, or even result in continuous life-threatening seizures.

Defining what is adequate sleep for any individual can be problematic. Duration and quality of sleep are both important. Ask yourself the simple questions of 'Do I wake refreshed?' and 'Does sleepiness affect me during the day?'

4. Managing sleep and epilepsy

Many people with epilepsy are anxious about their sleep and fear that poor or insufficient sleep will bring on a seizure. Unfortunately, this anxiety can prevent sleep or lead to the development of insomnia (see Anxiety and Sleep). We recommend that those with epilepsy focus on things that they can control – a healthy diet, regular exercise, taking their anti-seizure medication, and creating good bedtime routines for enough sleep (see Good Sleep Habits). Insomnia is a treatable condition, and more advice can be found on the insomnia fact sheet. If needed, please see your doctor.

Some people with epilepsy are concerned that a seizure during sleep could be life-threatening. It is true that seizures can be dangerous, and this may be scary. This risk may be minimised by a bed partner or flatmate who is aware of the diagnosis and can help if a seizure occurs. There may be a role for seizure alarms to alert others so assistance can be given. The risk may also be reduced by avoiding sleeping on your tummy and instead sleeping on your side or back.

As sleep often impacts epilepsy, and epilepsy often impacts on sleep, discuss with your doctor any problems you are experiencing. This will assist with seizure control and improve your overall health.

Where can I find more information about sleep and autism?

www.epilepsy.org.au/e-quip-an-epilepsy-resource-for-youth/epilepsy-and-sleep/

www.sleepfoundation.org/physical-health/epilepsy-and-sleep

For information on over 70 different sleep related topics, written by professionals, visit the Sleep Health Foundation Information Library at www.sleephealthfoundation.org.au. The underlined topics in this article are covered in detail there.



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A national organisation devoted to education, advocacy and supporting research into sleep and its disorders.

Disclaimer - Information provided here is general in nature and should not be seen as a substitute for professional medical advice. Ongoing concerns about sleep or other medical conditions should be discussed with your local doctor.

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