

Carpe Diem – Seize the Day Blog

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Poor quality of sleep and epilepsy are co-existing conditions. Sleep can affect frequency and occurrence of interictal spikes and occurrence, timing, and threshold of seizure. Epilepsy can worsen sleep architecture and severity of sleep disorders. Thus, a vicious cycle is put in motion. Certain epilepsy syndromes are so intertwined with sleep that they are considered sleep-related epilepsies. Poor quality of sleep with epilepsy is worsened by poorly controlled seizures. Improving sleep has been noted to improve seizure frequency and an overall well-being in patients with epilepsy. Hence, an emphasis should be given to address sleep in patients with epilepsy.

How Does Sleep Affect My Child's Seizures?

- Sleep and epilepsy are intricately connected. Sleep can affect the frequency, occurrence, timing, and length of seizures.
- Sleep deprivation is a common trigger of seizures for many people.
- Some epilepsy syndromes are highly related to sleep and may be called sleep-related epilepsies.
- For example, individuals living with Benign Rolandic Epilepsy and Autosomal Dominant Nocturnal Frontal Lobe Epilepsy have seizures most often at night. Others, such as epilepsy with
- generalized tonic-clonic seizures alone, happen within 1-2 hours of awakening.
- Epilepsy can worsen your ability to sleep and can also make existing sleep disorders worse.
- Some of the drugs used to treat epilepsy may also affect sleep. Some seizure medicines may make people sleepier. Others may lead to problems falling or staying asleep.

Steps you take to improve your sleep can lessen the frequency of seizures as well as improve your overall well-being. People with problems sleeping should talk to their epilepsy providers as well as their primary care providers to sort out possible causes of sleep difficulties.

How to Help Your Child Get a Good Night's Sleep

Listed below are several tips to help your child get a good night's sleep.

- Set up a realistic time for bed and stick to that schedule. Going to bed around the same time each night, even on weekends, will help train your brain to associate a specific time of the night to going to bed. This fits with the next section on routine.
- Shut down and relax. Stress can cause insomnia. To prevent this, have your child follow a relaxing routine at the end of the day. This helps ease the transition from the activities of the day to the calm relaxation of sleep. Consider some techniques such as deep breathing or meditation to help clear your mind before bed.

- Unplug. Turn off electronics an hour before bed. Studies have shown that the blue light emitted out of electronic devices (such as smart phones, tablets, laptops, and televisions) can affect the sleep-inducing hormone, melatonin. These devices can also overstimulate people and make it harder to wind down and go to sleep.
- Get some sun. Exposure to sunlight during the day can also jump start the production of melatonin.
- Pay attention to the room environment. Keep the bedroom dark, quiet, and cool for the best sleep. A room temperature between 60–67 degrees Fahrenheit is usually best for a good night's rest. Fans or humidifiers can create white noise and be soothing. Make sure the sleeping environment is quiet and dark.
- Create a sleep-friendly bedroom. Get a comfortable mattress and pillow. Some people prefer firm mattresses and pillows, while others prefer softer bedding. Try several mattresses and pillows out at the store to see which type suits you better. Keep televisions, computers, video games, and other electronic equipment out of the bedroom.
- Get plenty of exercise during the day. Exercise helps combat stress and feelings of restlessness. However, exercising too close to bedtime can make it more difficult to fall asleep. Exercise should be completed at least three hours before bedtime.
- Avoid large meals right before bedtime. Eating heavily too close to bedtime can interfere with a good night's sleep.
- Limit stimulants too close to bedtime. Avoid beverages and food that contain caffeine after late afternoon. Avoid caffeine at least 6 hours before bedtime.
- Exercise regularly. Look at the type and timing of exercise. Vigorous exercise is usually better earlier in the day. Improve sleep habits before bed – look at when you exercise and turn off your electronics!

But What If These Tips Don't Help?

If your child has a sleep problem that is not related to their epilepsy, talk to the neurologist or epileptologist. He or she may wonder about a sleep disorder. The doctor may take their sleep history and have you or your child fill out a sleep diary to record their daily sleep behaviors for several weeks. Tests may be needed to check how their sleep is at night and to see if any seizures occur at night that may be part of the problem.

Co-existing conditions with epilepsy may cause sleep issues. Changes in mood, such as depression and anxiety, can also cause sleep problems. Talking to a mental health provider may help sort this out. Sometimes counseling or behavior changes help mood and sleep. Whatever the cause, keep working on their good sleep habits.

Can sleep deprivation trigger a seizure?

Yes, it can. Seizures are very sensitive to sleep patterns. Some people have their first and only seizures after an "all-nighter" at college or after not sleeping well for long periods. If you have epilepsy, lack of "good sleep" makes most people more likely to have seizures. It can even increase the intensity and length of seizures. Some forms of epilepsy are especially prone to sleep problems.

Why does sleep deprivation provoke seizures?

Sleep can affect seizures in many ways. During normal sleep-wake cycles, changes in the brain's electrical and hormonal activity occur. These changes can be related to why some people have more seizures during sleep than others, and why not getting enough sleep can trigger seizures. Some people's seizures are tied very closely with their sleep. They may have all their seizures while sleeping, when falling asleep or waking up. For others, sleep may not be a common trigger, or the association is less clear. For example, not getting enough sleep may trigger seizures only when other triggers are going on too.

What causes sleep problems?

Lot of things can affect a person's sleep and make them more likely to have seizures. Here are a few factors to consider.

- Not getting enough sleep: There is no magic number of hours of sleep that everyone should get. Some people do well on 5 hours a night, others need 8 to 10 hours or more. In general, at least 7-8 hours of sleep a night is considered good, but the quality of sleep also needs to be considered. If people sleep much less than this most of the time, they are likely sleep deprived and not getting good sleep.
- Not getting 'good quality' sleep: Good sleep means feeling rested when you wake up and have energy during the day. Lots of things can prevent you from getting good quality sleep, for example not getting enough sleep, waking up frequently, or having a very restless sleep.
- Having seizures at night: Seizures at night can wake people up or just disrupt their sleep so they are not getting a good quality of sleep. Their brains may be missing some of the important sleep cycles. As a result, someone who has lots of seizures at night may have trouble functioning during the day. They may also be chronically sleep deprived and have more seizures during the day too!
- Difficulty falling asleep: Sleep problems can arise from being unable to fall asleep, awakening frequently, or waking up too early. Seizures, moods, and medicine side effects can all cause insomnia.
- Moods: Difficulty sleeping is a common symptom of depression and anxiety. If sleep problems last longer than 2 weeks and/or other symptoms of mood problems are present, it is time to sort this out by seeing your doctor or mental health specialist.
- Poor eating habits: Eating or drinking late at night, eating large amounts before sleep, drinking coffee or other drinks with caffeine, or drinking alcohol in the evening are just a few eating habits that can worsen sleep.
- Side effects of medications: Some seizure medications can make people sleepy. Others can make it harder to fall asleep. The times seizure medications are taken may also make a difference.
- Sleep disorders: Sometimes people cannot sleep because they have a sleep disorder, like sleep apnea, restless legs, or other sleep problems. Sleep disorders can leave a person chronically sleep deprived and tired. It is not unusual to see people with seizures also have sleep disorders.

If seizures occur in children at night or the child is more tired than usual during the day, talk to the epilepsy doctor. If your child consistently has more seizures when he or she does not sleep

enough, you will need to make a special effort to improve sleep habits and avoid things that cause sleep deprivation.

Caregivers and Sleep

If you are the parent of a child with epilepsy, or a family member helping an adult with epilepsy, it is particularly important that you make healthy sleep a priority for yourself as well. Parents of children with epilepsy generally do not get enough sleep. A study at West Virginia University looked at the sleep habits of 50 parents of children under the age of 5 with epilepsy. These parents slept only 4 hours at night on average. They also woke up an average of 3 times per night to check on their children. The study also found a relation between these nighttime awakenings and decreased happiness in marriage and health of the mother. Pay careful attention to your own sleep habits. If you or your spouse are having trouble sleeping, talk to a health care provider about ways to address the problem.

Editor's Note: The Carpe Diem – Seize the Day Blog will be distributed and posted weekly.
Always remember – **CARPE DIEM – SEIZE THE DAY!**

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