

# SEIZURES AND TEENS: Stress, Sleep, & Seizures

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*Most parents are used to erratic sleep patterns and mood swings in their teenagers. When these occur in an adolescent with seizures, however, the parent may wonder if sleep and mood problems are related to seizures. Sorting out the cause and effects of sleep in an adolescent with seizures can be confusing. Since stress can be a contributor to both sleep problems and seizures and ways of managing stress and sleep may be similar, these topics are often addressed together in this age group. This article provides an overview of the role of sleep and stress in adolescents with seizures and ways to monitor and modify your teen's lifestyle as part of seizure management.*

**Importance of sleep:** Sleep and stress are both integral parts of life. Sleep is critical for our brains and body to work properly. During sleep, nerve cells actively work to make connections, form memories, help us learn, and provide necessary rest and repairs for the body. The importance of sleep can be understood by looking at what happens when people don't sleep well. For example, sleep deprivation can affect memory and learning, physical performance, growth, and hormone function. Sleep is important for our ability to cope with pain and stress. When sleep is disrupted, people may feel irritable, tired, depressed, or overwhelmed. A person's usual ways of coping may not be as effective, judgment may be impaired, and decision-making affected.

**What is enough sleep?** Sleep needs vary as we age. Teenagers typically need 9 hours of sleep a night as compared to 10 to 12 hours of sleep for young children and 7 to 8 hours for adults. Normal sleep has five different stages, including periods of drowsiness, beginning to fall asleep, deep sleep, and REM sleep, or the time when dreaming occurs most often. When people have broken or interrupted sleep, the brain doesn't progress through the normal sleep stages, and the critical work of sleep is not complete. Constant sleep deprivation can occur even if the person feels like they are sleeping enough. When we sleep is also important to the quality of sleep and whether a person is getting enough. Hormones regulate sleep so people usually get tired at night and awaken when it's light out. When people sleep during the day or with lights on, sleep-wake cycles are affected, and people are at risk for sleep deprivation.

A typical teen sleeps too little on weekdays and too much on weekends. As a child enters adolescence, their body clocks change, and they stay awake later. While they may study, work, or play late in the evening, typical school hours still require teens to get up early. As a result, most teens don't get enough sleep during the week and then try to catch up on the weekends. These changing sleep times and periods of too little sleep often lead to chronic sleep deprivation.

**Sleep and seizures:** Some forms of seizures tend to occur more often at night or in early morning hours. For example, a common form of seizures in adolescents, benign rolandic epilepsy, typically consists of seizures that occur only at night. They tend to go away on their own, and in some people, seizure medications may not even be needed. However, if seizures occur frequently, interfere with daytime function, or also occur during the day, medications would be recommended. In other types of epilepsy, seizures may occur more often during drowsy periods such as upon falling asleep or upon awakening, as well as during the day.

Sleep deprivation can also make seizures more likely to occur in an adolescent with seizures. Teens can be sleep deprived by not getting enough sleep, sleeping at irregular times, or having interrupted sleep from seizures at night. Additionally, teens with disrupted sleep could have a sleep disorder, such as sleep apnea. Since sleep disorders can worsen seizure control in teens with epilepsy, it's important to look carefully at sleep patterns and causes of sleep disturbances.

**Importance of stress:** Stress is defined differently by everyone. Most commonly, we think of stress as a physical, mental, or emotional tension or problem. Our bodies respond to stress with certain physical, emotional, and hormonal changes. If stress occurs repeatedly over a period of time, the body's usual responses may not work. Stress builds up and can lead to unhealthy symptoms and illness. New illnesses or health problems can arise, or existing problems can worsen.

**Stress and seizures:** Many people feel that stress may affect their seizures, yet proving this is hard to do. Some people note that seizures occur after many little stresses or 'hassles;' others report that seizures tend to occur only before or after a major stress. Physical stresses may affect some people, while the buildup of emotional stress, either positive or negative, can affect other people. Stress is also a common cause of sleep problems. Teens who feel stress may have trouble talking about what bothers them but may feel tired, sleep too much, or have difficulty sleeping. Difficulty managing stress can lead to emotional problems such as anxiety or depression that don't go away on their own. Thus, sleep problems can be a sign of mood problems, or stress and mood problems can arise from poor sleep!

**Evaluating causes:** While sleep and stress are not considered causes of epilepsy, they may aggravate seizure control and contribute to sleep and stress problems. The following scenario highlights the varied causes and connections between sleep, stress, and seizures.

*Tim, 15 years old, began having seizures at night after months of being seizure free. Tim denied any missed medicines, new health problem, or use of alcohol or recreational drugs. Initially, the neurologist increased the dose of seizure medicine. Tim returned to the doctor's office complaining of feeling exhausted and continuing to have seizures. More detailed questioning revealed that he recently*

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began a part-time job in the evening, and as a result, had been staying up late to complete homework. He had been drinking more caffeinated soda to help him stay awake in the evening. He was not getting to bed until 2:00 am and got up at 6:30 am for school. It took him 45 minutes to fall asleep, and he frequently found himself worrying about schoolwork.

The above situation is typical for many adolescents; however, the consequences for a teenager with seizures can be serious. In addition to being exhausted, Tim began having more seizures. When he first saw the doctor, the changes in his daily life were not known. The initial response to increasing medication didn't change the fact that Tim's busy schedule didn't leave him time to sleep. The extra caffeine in the evening and worry about getting his work done was contributing to sleep problems. The more tired he was, the more caffeine he drank. As a result, he was constantly sleep deprived. Treatment in this scenario should be directed to evaluating Tim's lifestyle and seeing what factors could be eliminated or modified to improve sleep. Additionally, further evaluation of Tim's mood and how he was managing stress would be recommended. Often, what people don't say can be as important as what they do say initially.

**Monitoring Seizures, Sleep and Stress:** In addition to tracking seizures, looking at the teen's general health, activity, exercise, sleep, eating habits, and emotional status can help you identify problem areas and consider factors that may respond to lifestyle or behavioral strategies to help seizures, sleep, and stress. Consider the following questions:

- What is the teen's typical schedule for school, work, and leisure time activities? Consider the impact of the teen's schedule on seizures, sleep, and stress. A teen who is too busy during the day and evening will have little time for sleep. A lack of time for relaxation and exercise can increase stress and interfere with sleep.

- How is his energy level during the day and does he nap? Energy levels can vary widely in the adolescent years, often with low energy during the day and feeling more alert and energetic at night. In a teen with seizures, look for other signs as well. Is the teen just tired, or is he having more seizures? Side effects of medicines and after-effects of seizures can leave a person feeling exhausted. While naps during the day can help temporarily, they can lead to problems sleeping at night or poor sleep at night can be the reason that someone needs to nap during the day. Don't forget to look at the teenager's mood. Low energy and motivation, as well as fatigue, can also be due to stress and other mood problems.

- What are sleep patterns like? Getting a good night's sleep is more than just getting nine hours of sleep a night. Look at the teen's evening activity. Is it conducive to feeling relaxed and ready to sleep? Watching television or using a computer late at night wakes up the brain, rather than relaxes it. While exercise can help at the end of the day, it can also wake people up when done too close to bedtime.

- Does he have problems falling asleep or waking up fre-

quently? Has he been diagnosed with or have symptoms of sleep problems? Delayed sleep and interrupted sleep can be a sign of many factors. 'Normal' stress and worry can lead to temporary problems with sleep, but persistent problems can be a sign of a mood or sleep disorder, or both.

- What are the teen's eating habits like? Eating large amounts in the evening and drinking large amounts of caffeinated beverages can interfere with the quantity and quality of sleep.

- What stressors is the teen facing and what supports does he have? Many times people aren't aware how stressful situations may be, until they feel overwhelmed or develop other symptoms. Learning ways to manage stress may also help sleep and seizures, but if stress or mood changes persist, a more complete mental health evaluation should be done. Supportive counseling may be available through the school or the teen's epilepsy care providers. If mood problems are present, make sure that the teen's epilepsy doctor is aware as these may impact the teen's seizures and the doctor's choice of medications.

- Does he drink alcohol or use recreational drugs, and if so, how much and when? During the teenage years, many kids experiment and take risks with alcohol or drugs. Seizures can increase in response to heavy drinking and certain drugs, or teens may miss their prescribed seizure medicines for fear of mixing substances or as part of rebellious behavior. Alcohol and substance abuse also lead to fatigue, disturbed sleep patterns, and emotional problems. Recognizing and treating these problems early is critical to effective intervention.

**Modifying lifestyle:** Telling a teenager what they can and can't do doesn't work well—it often encourages the teen to do the opposite! Making many changes at once can also be hard to do, and the teen will just give up. When lifestyle problems may be contributing to seizures, start by having the teen track their seizures in relation to sleep habits and stress level for a few months. Then encourage them to sit down with their doctor or nurse and look at what factors may be changed or modified and in what way.

The following tips offer ideas to improve sleep and seizures. Many of these strategies are also helpful in managing stress. Teens should be encouraged to try one or two things at a time, starting with the easiest ones. Once they see how well it works, they may feel more confident about making other lifestyle changes. This list is not intended to be complete. Parents and teens are encouraged to talk to the doctor and counselors for more suggestions and individualized sleep and stress management techniques. Problems that don't go away with lifestyle changes or that are affecting the teen in other ways should be discussed with the doctor for more detailed evaluation and treatment.

- Have consistent times for going to bed and getting up. On weekends, try to stick close to the same schedule, give or take a few hours.

- When sleep times are off or can't be changed, be extra careful about taking medicines on time and avoiding other seizure triggers.

- Talk to your doctor about times to take seizure medicines. Some medicines interfere with falling asleep and should be taken earlier in the evening. Others that cause drowsiness are best taken an hour or so before sleep.

- Simplify day and evening schedules whenever possible. This may require teens to set priorities and make choices, keeping their health in mind.

- Avoid studying, working on the computer, watching television, or playing video games before bed. These activities will wake you up rather than help you fall asleep. Try doing these activities earlier in the evening and then switch to reading a book or other relaxing activities before bedtime.

- Exercise in the afternoon or early evening but not right before bed.

- Try a warm shower in the evening to help you relax.

- Use your bed only for sleeping. Avoid watching television in bed.

- Turn the lights out when you sleep. If you have trouble waking up in the morning, use natural light to help you wake up.

- Avoid caffeinated beverages after mid-afternoon and if possible, wean off caffeinated drinks altogether.

- Avoid alcohol and recreational drugs or substances. Talk to your doctor about moderation in having an alcoholic drink, if it's legally okay for you to drink alcohol.

- If you are worried or noticing mood changes, talk to a trusted adult and your doctor or counselor.

- Keep a journal and write down what's on your mind in the evening, before going to bed. If you're worried at night and can't sleep, get up, and write in your journal. Sometimes writing down

what is bothering you helps you look more objectively at it. You can then put the worries away for the night and decide what to do in the morning.

- If you still can't sleep after 30 minutes, get up and go in another room for a few minutes or until you feel tired. Then go back to bed and try again.

- Limit naps during the day. If you need one, take a short nap and set the alarm to wake you up. If you are still tired, try to go to bed earlier. The goal is to get you sleeping longer periods at night and less during the day.

*Sleeping well is something that we all need but is even more critical for the person with seizures. Without even knowing it, many people (and certainly many teenagers) are chronically sleep deprived. Sleep problems can be related to seizures and stress in many ways. The purpose of this article was to highlight some of these associations and offer practical ways of assessing and improving sleep and stress management. Addressing sleep and stress is a critical part of seizure management and is something that teens can have control over and change. Other resources and strategies for managing seizure triggers and being prepared can be found at <http://www.epilepsy.com/epilepsy/preparedness.html>. •*

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