Sleep and epilepsy

This information looks at the connection between epilepsy, seizures and medicines and sleep. It also gives hints and tips for better sleep and better seizure control if seizures are connected with sleep.

Can epilepsy affect my sleep?

There are some types of epilepsy where seizures have a particular connection with sleep. And seizures can be related to different stages of sleep. There are 4 stages of sleep, with different brain activity in each.

What are the different stages of sleep?

Stage 1 Non-REM sleep

Drowsiness - this stage lasts 5 or 10 minutes. Your eyes move slowly under your eyelids, your muscles begin to relax and you are easy to wake up.

Stage 2 Non-REM sleep

Light sleep - your eye movements stop, your heart rate slows, and your body cools down.

Stage 3 Non-REM sleep

Deep sleep - it’s not easy to wake you during these stages of sleep. If you do wake, you will be groggy and not quite with it for a few minutes. This kind of sleep allows your brain to rest and restores your energy. Your immune system is helped by deep sleep.

Stage 4 REM sleep

Rapid eye movement (REM) sleep - about 70 to 90 minutes into your sleep cycle, you enter REM sleep. You usually have 3 – 5 episodes of REM sleep each night. This stage is associated with processing your emotions, filing your memories and relieving your stress.

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2 [http://psychology.about.com/od/statesofconsciousness/a/SleepStages.htm](http://psychology.about.com/od/statesofconsciousness/a/SleepStages.htm)
Possible effects of seizures on sleep

If you have a seizure during your sleep, it affects your sleep for the rest of the night. Your sleep becomes lighter, and you wake more often. The most serious effects are on REM sleep, which is greatly reduced, and may even disappear.\(^3\)

Seizures when you’re awake can also reduce your REM sleep the following night.

Although it’s important to get enough REM sleep, it’s not clear how to do that, apart from controlling your seizures. If your seizures aren’t fully controlled, ask your doctor to refer you to an epilepsy specialist for an assessment of your epilepsy and your epilepsy medicine.

If it’s not possible to control all your seizures, you should try to catch up on missed sleep, particularly in the day or two after a seizure.

Possible effects of epilepsy medicines on sleep

Most people with epilepsy take epilepsy medicines to control their seizures.\(^4\) Like all types of medicine, epilepsy medicines can have unwanted side-effects. The following epilepsy medicines may have sleep-related side-effects.

<table>
<thead>
<tr>
<th>Epilepsy medicine</th>
<th>Side-effect</th>
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<tbody>
<tr>
<td>Ethosuximide</td>
<td>sleep disturbance, night terrors</td>
</tr>
<tr>
<td>Lamotrigine</td>
<td>insomnia (difficulty sleeping), sleep disturbance</td>
</tr>
<tr>
<td>Pregabalin</td>
<td>insomnia, abnormal dreams</td>
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<tr>
<td>Topiramate</td>
<td>sleep disturbance</td>
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<td>Gabapentin</td>
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<td>Levetiracetam</td>
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<td>Rufinamide</td>
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<td>Topiramate</td>
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<td>Zonisamide</td>
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If you are concerned that your epilepsy medicine is causing side-effects, speak with your doctor. They may be able to help.

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How could my type of epilepsy affect my sleep?

There are many different types of epilepsy. And some seem to be particularly related to sleep. Three of the more common are generalised tonic-clonic seizures on awakening, juvenile myoclonic epilepsy, and benign epilepsy of childhood with centro-temporal spikes.\(^5\)

**Generalised tonic-clonic seizures on awakening**

In this type of epilepsy, you have tonic-clonic seizures either just before, or just after, you wake. This may be in the morning, after a night’s sleep, or during the day after a nap.

Epilepsy Action has more information about tonic-clonic seizures

**Juvenile myoclonic epilepsy (JME)**

In JME, your seizures usually happen shortly after waking. They may happen at other times when you are very tired. Not having enough sleep could make your seizures more likely.\(^6\)

Epilepsy Action has more information about juvenile myoclonic epilepsy

**Benign epilepsy of childhood with centro-temporal spikes (benign rolandic epilepsy)**

If you have this type of epilepsy, you will have focal (partial) seizures, in your sleep. Occasionally, you might have seizures when you are awake.\(^7\)

Epilepsy Action has more information about benign rolandic epilepsy

**Focal (partial) seizures**

In focal seizures, epileptic activity starts in just a part of your brain. And it is common for focal seizures to happen while you are asleep.\(^8\)

Epilepsy Action has more information about focal seizures

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Why it’s important to get enough sleep

People tell us that they have more energy, think more clearly and react more quickly after a good night’s sleep. Between 2 and 9 people in every 10 with epilepsy find not having enough sleep makes their seizures more likely. ¹⁹

Tips to help you get enough sleep:¹⁰

- Keep regular sleeping hours
- Wind down by:
  - Writing a ‘to do’ list
  - Doing relaxation exercises
  - Listening to a relaxation CD
  - Reading a book
  - Listening to the radio
- Create the right environment in the bedroom
  - No TV or electronic devices
  - Dark
  - Quiet
  - Tidy
  - Smells fresh
  - Good temperature for you
  - Have a comfortable bed

We all have different ways of getting enough sleep. This is what some people with epilepsy say:

“If I don’t get enough sleep, I’m far more likely to have a seizure next morning. I need about 8 hours, so I always aim to be in bed by 10 pm, so I can read for an hour before going to sleep.”

“I’ve recently become a mum, so as you can imagine, lack of sleep is a huge issue. Luckily, my partner is really supportive and does what he can to help. He does a lot of the night time feeds. If he’s away, my friend stays with us for the night, so she can do them. My health visitor has given me loads of helpful advice about setting a sleep routine for the baby. As soon as she is sleeping more soundly, so will the rest of us!”

“Sleep is a real problem for me sometimes, especially if I’m feeling stressed, or I’ve had to work in the evening. I’ve learnt to never go to bed until I’m feeling sleepy – some nights this can be after midnight, if I’ve been working late. If I haven’t fallen asleep within half an hour, I’ll get back up and make myself a hot milky drink, then wait until I feel sleepy.”

¹⁰ http://www.nhs.uk/Livewell/insomnia/Pages/bedtimeritual.aspx [Accessed August 3 2015]
Epilepsy with sleep disorders

People with epilepsy have a higher chance of also having a ‘sleep disorder’\(^\text{11}\) than people who don’t have epilepsy.\(^\text{12}\) Sleep disorders include obstructive sleep apnoea, restless legs syndrome, narcolepsy and night terrors. Sleep disorders can affect seizures because broken sleep can trigger seizures.

You can get information about sleep disorders from NHS Choices

If there’s any possibility that you have a sleep disorder, your doctor may be able to refer you for a sleep study. Sleep studies can take different forms and can help to show exactly what problems you’re having while you’re asleep.\(^\text{13}\)

SUDEP and sleep

Some people only have seizures during their sleep, some people have seizures when awake and asleep, and some people never have sleep seizures.\(^\text{14}\)

Sudden unexpected death in epilepsy (SUDEP) happens when a person with epilepsy dies suddenly and unexpectedly, and no obvious cause of death can be found.\(^\text{15}\) SUDEP has been shown to be connected with seizures but an exact cause has not been found.\(^\text{16}\) But we do know that if you have uncontrolled tonic-clonic seizures\(^\text{17}\) in your sleep, and sleep alone, you are at increased risk of SUDEP.\(^\text{18}\)

Epilepsy Action has more information about SUDEP

If you are still having seizures, see our information about getting the right treatment and care for your epilepsy.


Alerting others to your seizures

If you worry about having a seizure and not having anyone to make sure you're safe, you could consider getting a seizure alarm.

There are different kinds of alarm available. What type you need will depend on the types of seizures you have. For example, some alarms are sensitive to movement. So if you have tonic-clonic seizures during sleep, then this type of alarm should detect them. There are other types of alarm available.

Alarms will only be useful if there is someone the alarm could alert, so they can help you.

Epilepsy Action has more information about alarms

Anti-suffocation pillows

Some people who have sleep seizures use anti-suffocation pillows. These may be safer than ordinary pillows, although we don't have any research to prove this. If you are thinking about buying an anti-suffocation pillow, discuss this with your epilepsy nurse or epilepsy specialist, to see if they think this will help you.

About this information

This information is written by Epilepsy Action's advice and information team, with guidance and input from people living with epilepsy, and medical experts. If you would like to know where our information is from, or there is anything you would like to say about the information, please contact us at epilepsy.org.uk/feedback

Epilepsy Action makes every effort to ensure the accuracy of information but cannot be held liable for any actions taken based on this information.

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Your support

We hope you have found this information helpful. As a charity, we rely on donations to provide our advice and information. If you would like to make a donation, here are some ways you can do this.
• Visit www.epilepsy.org.uk/donate
• Text ACT NOW to 70700 (This will cost you £5 plus your usual cost of sending a text. Epilepsy Action will receive £5.)
• Send a cheque payable to Epilepsy Action to the address below.

Did you know you can also become a member of Epilepsy Action from as little as £1 a month? To find out more, visit epilepsy.org.uk/join or call 0113 210 8800.

Epilepsy Action Helpline
Freephone 0808 800 5050, text 0753 741 0044, email helpline@epilepsy.org.uk, tweet @epilepsyadvice

Contact details
Epilepsy Action, Gate Way Drive, Yeadon, Leeds LS19 7XY, UK, +44 (0)113 210 8800. A registered charity (No. 234343) and company limited by guarantee (No. 797997) in England. © Copyright Epilepsy Action