

EPILEPSY

Epilepsy is a neurological disorder involving recurrent seizures. A seizure, also called convulsion, is a sudden change in behaviour caused by increased electrical activity in the brain. The increase in electrical activity may result in unconsciousness and violent body shakes or simply a staring spell that may go unnoticed.

There are different causes of epilepsy that are common in certain age groups.

- During the neonatal period and early infancy the most common causes include encephalopathy, CNS infections, trauma, congenital CNS abnormalities, and metabolic disorders
- During late infancy and early childhood, febrile seizures are fairly common.
- During adolescence and adulthood, the causes are more likely to be secondary to any CNS lesion
- In older adults cerebrovascular disease is a very common cause. Other causes are CNS tumors, head trauma, and other degenerative diseases such as dementia, that are common in the older age group

There is an inherent relationship between sleep and epilepsy. Sleep activates the electrical charges in the brain that result in seizures and seizures are timed according to the sleep wake cycle. When seizures occur during sleep, they may cause awakenings that are sometimes confused with insomnia. Epilepsy patients are often unaware of the seizures that occur while they sleep. They may suffer for years from daytime fatigue and concentration problems without ever knowing why.

Most seizures only last a minute or two and are accompanied by an aura or euphoric sensation that occurs prior to the event and may last for several minutes after the event.

Different types of seizures include:

- Petit mal seizure - symptoms of petit mal seizures include a brief loss of consciousness, little or no movement, and a blank stare. They occur most often in children and may be mistaken for a learning disability.
- Grand mal seizure - symptoms of grand mal seizures include violent body contractions, loss of consciousness, a pause in breathing, urinary incontinence, tongue or cheek biting, and confusion and weakness following the event.
- Partial seizures - symptoms include muscle contractions or jerking movements in certain parts of the body, sensations such as numbness or tingling, nausea, sweating and dilated pupils. Partial seizures affect only a portion of the brain and consciousness is maintained.
- Partial complex seizures - symptoms of partial complex seizures include a blank stare, unresponsiveness, automated non-purposeful movements, inappropriate emotions, strange smell or taste hallucinations, and loss of consciousness.

Treatment for epilepsy may involve surgery or medication.

If epilepsy seizures are due to a tumor, abnormal blood vessels, or bleeding in the brain, surgery to treat these disorders may make the seizures stop.

Medication to prevent seizures, called anticonvulsants, may reduce the number of future seizures.

- These drugs are taken by mouth. Which type you are prescribed depends on the type of seizures you have.

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- Your dosage may need to be changed from time to time. You may need regular blood tests to check for side effects.
- Always take your medication on time and as directed. Missing a dose can cause you to have a seizure. Never stop taking or change medications without talking to your doctor first.
- Many epilepsy medications cause birth defects. Women wishing to become pregnant should tell the doctor in advance in order to adjust medications.

When a seizure does occur, there are things people can do to keep the person having the seizure from injuring himself or herself. If you or your child has epilepsy, be sure that your family, friends, co-workers, and classmates are aware of the condition and know how to help in the event of a seizure.

Here are some tips for what to do if someone is having a seizure:

- Lay the person down on his or her side in an area free of sharp objects
- Cushion the person's head
- Loosen clothing, especially around the neck
- Check for a medical ID bracelet that gives instructions on what to do
- Monitor the person's vital signs
- Stay with the person until the episode is over or medical personnel arrive

Here are some tips for what NOT to do if someone is having a seizure:

- Do not restrain the person
- Do not put anything in the person's mouth during the episode
- Do not move the person unless he or she is in danger

If someone is having a seizure, call 911 if:

- This is the first time the person has had a seizure
- The seizure lasts more than 2-5 minutes
- The person does not awaken or have normal behaviour after the seizure
- Another seizure starts soon after a seizure ends
- The person had a seizure in water
- The person is pregnant, injured, or has diabetes
- The person does not have a medical ID bracelet
- There is anything different about this seizure compared to the person's usual seizures