



Seizure Fact Sheet

I had a Seizure. Do I have Epilepsy?

Having a seizure is scary. What caused the seizure? Could you have epilepsy? While epilepsy is one of the most common neurological disorders, having a seizure does not necessarily mean you have epilepsy. Up to 10% of people will have a seizure at some point in their life, according to the Epilepsy Foundation.

What is a seizure?

A seizure is a sudden surge of electrical activity in the brain. The brain's neurons, or nerve cells, talk to each other through electrical impulses. A seizure is a brief change in the normal brain activity. Seizures happen when neurons misfire or "talk too much," disrupting the normal electrical rhythms of the brain. Seizures are quite common, especially in infants and young children. Seizures are not a disease in themselves. Instead, they are a symptom of many different disorders that can affect the brain. Some seizures can hardly be noticed, while others are totally disabling. Seizures have a wide range of causes, including a health condition or an injury. If there is a known cause for your seizure (for example, brain injury or other type of known brain condition), then you are twice as likely to have another seizure.

What causes seizures?

Anyone can have a seizure under the right circumstances. A seizure is a single event. Epilepsy is a condition in which a person is predisposed to having recurrent, unprovoked seizures.

Some people may find that seizures occur in a pattern or are more likely to occur in certain situations. A trigger is something that occurs fairly consistently before seizures and more often than by chance. Keeping track of any factors that may come before a seizure (also called seizure triggers) can help you recognize when a seizure may be coming, and help you be prepared to lessen the chance that one may occur the next time you face a similar trigger.

Some people will notice one or two triggers very easily. For example, their seizures may occur only during sleep or when waking up. Other people may notice that some triggers bother them only when a lot is going on at once or during a "high risk" time for them, like when they are under a lot of stress or sick.

What are commonly reported triggers?

- Not eating well, low blood sugar
- Specific time of day or night
- High fever
- Infection
- Injury, such as concussion
- Alcohol or drug use
- Associated with menstrual cycle (women) or other hormonal changes
- Sleep deprivation – overtired, not sleeping well, not getting enough sleep
- Stress
- Dehydration
- Exposure to flashing lights, patterns
- Specific foods, excess caffeine

Unprovoked seizures, however, don't have an obvious link to a cause. These seizures could be triggered by many things; an underlying neurological disorder, genetics or metabolic or chemical imbalances in the body.

Types of seizures

When people think of seizures, they often think of one type: the generalized tonic-clonic seizure, also called the grand mal seizure. However, there are several types of seizures that a person could experience.

- **Febrile seizure:** This is the most common type of seizure. This kind is triggered by a fever and usually affects children between 6 months and 5 years old. This type usually has muscle contractions, from mild (muscle stiffening) to severe (convulsions). If the seizure lasts less than 15 minutes, it's a "simple" febrile seizure; those that last longer than 15 minutes are considered "complex."

- **Neonatal seizure:** This type occurs in the first month of life, usually very soon after a baby is born.

- **Partial seizure (focal seizures):** This type affects just one part of the brain. Before this type, you may experience an aura, with changes in hearing, vision and the sense of smell. The focal seizure can last less than a minute and have different symptoms based on the part of the brain affected.

- **Generalized seizure:** Both sides of the brain are affected with this type of seizure. The individual will lose consciousness and will have a recovery period after the seizure. There are different types of generalized seizures, including:
 - **Absence seizure (petit mal seizure):** This type involves staring and an altered state of consciousness. They are usually shorter than 30 seconds but can happen several times a day. Afterward, the person may act like nothing has happened. This type usually begins between about 4 and 12 years old.
 - **Atonic seizure:** This type involves a quick loss of muscle tone, and can cause a drop attack, where a person falls from a standing position. During this type, the person is limp and unresponsive.
 - **Tonic seizure:** This type will cause parts of the body to stiffen, which also may cause drop attacks.
 - **Generalized tonic-clonic seizure (grand mal seizure):** This type of seizure has five phases which include:
 - The person's body will flex.
 - The person's body will straighten out.
 - The person has tremors.
 - The muscles will contract and relax (clonic).
 - A post-seizure period occurs, where the individual may be tired, sleepy, have vision or speech issues and have a headache or body aches.
 - **Myoclonic seizure:** This type involves the sudden jerking of a muscle group. This type of seizure often happens in clusters, occurring several times a day or for a few days in a row.