

Let's Talk About...

Seizures

A child has a seizure when brain cells (called neurons) send uncontrolled messages over and over (called misfiring). This may cause a sudden change in your child's consciousness, behavior, actions, or senses. Someone having a seizure might collapse, shake uncontrollably, or even just stare into space.

Seizures can be frightening, but most last only a few minutes, stop on their own, and are not life-threatening. A person who has had two or more seizures may be diagnosed with epilepsy (EP-ih-lep-see), also known as seizure disorder.

Seizures and epilepsy are common. About 1 out of 25 people have at least one seizure. About 1 in every 100 people have a seizure disorder. Many children will stop having seizures as they grow older, and a seizure disorder does not have to prevent your child from having a full life.

What are the types of seizures?

There are two types of seizures: generalized seizures and partial seizures. When your child has a generalized seizure, the whole brain misfires. During partial seizures, only one part of the brain misfires.

But not all seizures look alike. You may think seizures involve arms and legs moving uncontrollably.

General seizures	Partial seizures
<ul style="list-style-type: none"> • Convulsive seizures (also called tonic-clonic or grand mal) cause stiffening, jerking, limp arms and legs, loss of consciousness, and sometimes loss of bowel and bladder control. • Absence seizures (also called petit mal) are short seizures that cause a complete loss of consciousness without a convulsion. Your child's eyes may flutter, blink, or have a blank stare. 	<ul style="list-style-type: none"> • Simple partial (also called focal) seizures cause one-sided jerking, numbness, or limpness. Only one part of the body is affected, and your child's consciousness does not change. • Complex partial (also called psychomotor) seizures cause a change in consciousness (like a trance-like state). They also cause a series of automatic movements, followed by confusion.

However, seizures may include staring, brief jerks, brief falls, and jackknifing. Children younger than 18 months old may also have infantile spasms, sudden total body jerks or stiffening spells that happen in clusters. All of these are brief disturbances in brain function, often with a loss of or change in consciousness.

What causes seizures?

Seizures may be caused by a variety of brain problems or neurologic diseases, including:

- Metabolic problems (chemical imbalances)
- Infections like meningitis or encephalitis
- Abnormal brain development
- Brain injury
- Fever (febrile seizures)

Febrile seizures affect kids 3 months to 6 years old and are most common in toddlers. The seizures usually last for a few minutes and usually don't need treatment or cause other health problems.

Seizures are usually a symptom of an underlying problem. Many seizures can be treated and are not caused by serious brain problems. Some seizures in children are idiopathic, which means there is no clear cause or visible problem in the brain.

What do I do if my child is having a seizure?

First, make sure that your child is in a safe place where he or she can't get hurt. Place your child on the ground or floor in a safe area, preferably on his or her right side. Also:

- Remove any nearby objects.
- Loosen any clothing around the head or neck.
- Don't try to wedge your child's mouth open or place an object between the teeth, and don't try to restrain movements.
- If a seizure lasts more than 5 minutes, or seizures are continuous, call 911.
- If your child is not breathing, call 911 and start CPR.



What do I do after my child has a seizure?

- Once the seizure seems to have ended, gently comfort and protect your child. It's best for kids to remain lying down until they have recovered fully and want to move around.
- Allow your child to lie quietly until they wake up.
- Help them remember where they are and what happened, if needed.
- Write down what happened during the seizure. Include what your child was doing before, during, and after the seizure and how long the seizure lasted. This helps you and your child's healthcare provider watch the seizures.
- Contact your child's healthcare provider anytime your child has had a seizure.

What tests will my child have?

Your child's healthcare provider will want to know what is causing your child's seizures so they can treat your child properly. The healthcare provider will ask about your child's medical history and when they have had seizures. Your child usually will have the following tests:

Physical exam: The physical exam helps the healthcare provider learn about your child's general health, especially their nervous system.

Developmental exam: The healthcare provider will ask when your child started sitting, crawling, standing, walking, and talking. They will also see how well your child performs some simple tests. These tests are not painful and give the healthcare provider useful information about your child's nervous system.

Laboratory tests: Your child may have blood, urine, and sometimes spinal fluid tests to look for chemical imbalance, infection, and other problems that may cause seizures. They may also choose some of the following tests to find out exactly what is happening in your child's brain:

- **Electroencephalogram (EEG):** The EEG may help the healthcare provider learn what type of seizure your child had and what part of the brain it comes from. The provider will have small disks attached to wires placed on her head to measure electrical waves in her brain. The EEG is not painful, and there is no risk of injury.

- **CT scan:** The CT scan is an x-ray of the brain. It creates a picture of the brain and lets the doctor look for causes of the seizures.
- **MRI scan:** The MRI scan uses magnetic energy instead of an x-ray to create a picture of the brain. It creates a clearer picture than the CT scan and sometimes gives better information.

How are seizures treated?

If a head injury or infection is causing your child’s seizures, the healthcare provider will treat those problems. Many children with seizures need medicines to control the seizures. If your child’s first seizure was not severe, they may not have another seizure and probably won’t need medicine.

The healthcare provider will choose a medicine for your child based on the type of seizure your child had. They will choose one with the fewest side effects possible.

There are other ways to treat seizures, but these are not usually recommended until your child has tried other options. These include:

- Vagal (VAY-gul) nerve stimulation: A small device put in the chest that sends an electrical impulse to the vagal nerve in the neck to prevent seizures.
- Surgery
- A ketogenic diet (low-carbohydrate, high-fat diet)

Ask your doctor about these treatments if you want more information.

How do I make sure my child is safe if they have seizures?

A seizure itself is rarely dangerous to a child. If seizures are under control for several months, most activities are safe. Try the following suggestions to make sure your child is safe:

- Have your child take showers instead of baths to prevent drowning, and lower the temperature of your water heater. During baths, an adult must constantly supervise any child who has seizures.

- Swimming should be avoided until they have had no seizures for 3 months. While swimming they should always be supervised by a responsible adult strong enough to pull your child out of the water in an emergency. If your child swims in open water, always have them wear a life jacket.
- Bike riding should be avoided until they have had no seizures for several months. Always have your child wear a helmet and avoid high traffic areas.
- Have your child avoid skiing or other risky activities until their healthcare provider says it’s okay.

Call your doctor if you are unsure about an activity.

What problems can happen if my child has a seizure?

Physical or mental problems from seizures are very rare and are usually caused by another condition. Seizures may be a sign of that condition.

At times, side effects from seizure medicines may make a learning or behavior problem worse. If you see changes or have concerns about your child’s behavior or learning ability, tell your child’s healthcare provider and teacher.

Where can I get more information about seizures?

Ask your child’s healthcare provider for more information about seizures. You can also call the Epilepsy Foundation of America at 1.800.332.1000 or visit epilepsyfoundation.org.

Notes

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