

What Are Seizures?

What is a seizure?

A seizure is a short, strong surge of abnormal electrical activity in the brain that causes a sudden change in mental or physical functions.

What is epilepsy?

Epilepsy is a medical condition that produces seizures. Epilepsy is defined as two or more seizures that are **not** provoked and **not** due to a disturbance of the brain (such as a concussion or an extremely high fever).

Is there more than one type of seizure?

Yes. Some children will only have one type of seizure while others may have two or more. Types of seizures include:

- **Generalized seizures** (the surge of electrical activity affects the whole brain)
 - A generalized tonic-clonic seizure affects the entire body. These used to be called “grand mal” seizures. The child will suddenly lose consciousness and may fall to the floor (if standing) and stiffen. The child’s arms and legs might shake. The child may turn blue or pale, drool, make vocal noises, bite their tongue, or wet their pants. This type of seizure usually lasts 1-5 minutes. Often the child will be sleepy after the seizure.
 - Sometimes the child will only stiffen with the seizure (no jerking). This is called a “tonic” seizure.
 - Sometimes the child will jerk without stiffening. This is called a “clonic” seizure.
 - An absence seizure is a brief loss of awareness, the child stares with a glazed look, often accompanied by blinking, chewing, facial twitching or some other involuntary, subconscious movements, and doesn’t know what is happening. When the seizure ends, the child is immediately alert. These seizures typically only last for a few seconds and may happen several times throughout the day.
 - Myoclonic seizures are sudden jerks of muscle groups. One or more part of the body jerks suddenly and briefly.
 - Atonic seizures happen when the muscles of the body go limp, and the child is at a high risk for falling. These are sometimes called “drop seizures”.
- **Focal onset seizures** (the electrical activity starts in just one part of the brain). The electrical activity may stay in one area of the brain or travel to other areas of the brain.
 - A focal onset seizure with preserved awareness can vary. It can involve movement (jerking of one part of the body), abnormal sensation, loss of bowel or bladder control, or an emotional sensation (or ‘aura’) where the child can “feel” that a seizure is coming. The area of the body affected depends on what part of the brain is affected. During these seizures, the child always stays alert and aware.

IN CARE OF KIDS

- A focal onset seizure with impaired awareness may look like a simple partial seizure but will always involve some loss of alertness. The child may have a seizure (starting in just one part of the brain) that spreads to a different area of the brain causing them to lose awareness. You may see lip smacking, picking at clothes, wandering, making chewing motions, or it may suddenly become hard to understand the child's speech. Both types of focal seizures last only for a few minutes.

For more information, please see these handouts:

- "How Do I Care for a Child with Seizures?"
- "What Do I Need to Know About My Child's Seizures?"

The Family Health Library at Children's Hospital Colorado also has books and articles on seizures available for check out.

childrenscolorado.org

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