

Health News from the DCF Medical Team



Seizures

What are seizures?

Seizures are sudden temporary changes in physical movement, sensation, or behavior caused by abnormal electrical impulses in the brain. Depending on how many muscles are affected by the electrical impulses, a seizure may cause sudden stiffening of the body, lip smacking or complete relaxation of the muscles, which can make a person appear to be paralyzed temporarily. Sometimes these are referred to as “fits” or “spells.” Some children experience sudden episodes that might imitate seizures, but are not and they require quite different treatment. Examples include breath holding, fainting, facial or body twitching, and unusual sleep disorders (night terrors, sleepwalking) and a sudden loss of motor tone and strength.

What causes seizures?

The possible causes of seizures include head injuries, brain tumors, lead poisoning, abnormal brain development, genetics, infectious illnesses, fevers and drug exposure. Sometimes no cause can be found.

What are the types of seizures?

The type of seizure depends on which part and how much of the brain is affected by the electrical disturbance that produces the seizure and includes:

- ❖ **Generalized Seizures** can be brief staring; impaired consciousness or involuntary movement of arms and legs.
- ❖ **Partial Seizures** involve shaking, inability to speak and ability to remember; there may or may not be a loss of consciousness; and may also have an aura (a trigger that helps to recognize the onset of a seizure).
- ❖ **Febrile Seizures** are caused by high fevers; are most common in ages 6 months to 18 months; only a small number of children will develop chronic seizures without a fever. They can present as staring, stiffening of limbs or jerking movements.
- ❖ **Absence Seizures** are brief staring spells that last only a few seconds.

What is Epilepsy?

Epilepsy is a medical condition that produces seizures affecting a variety of mental and physical functions. It's also called a *seizure disorder*. When a person has two or more unprovoked seizures, they are considered to have epilepsy. Sometimes the cause is known and sometimes it is not.

What is the treatment for seizures?

- ❖ A child with a first seizure that resolves spontaneously is not given medications. If a child has more than one seizure, medications are recommended; the number and type of medication depend on the type of seizure.
- ❖ To plan treatment of different types of seizures, the medical practitioner will do a medical history and physical examination. Sometimes further testing is done such as an electroencephalogram (EEG, a test that measures the electrical activity in the brain), brain scans, blood tests or a lumbar puncture (spinal tap).
- ❖ If a child remains seizure free for a period of time, the medication may be decreased or stopped.
- ❖ If medications are unsuccessful, other treatments are considered such as a ketogenic (high fat) diet or surgery.

What do you do when a seizure occurs?

First aid for seizures involves responding in ways that can keep the person safe until the seizure stops by itself:

- Keep calm; prevent injury by clearing the area around them of anything hard or sharp. Ease the person to the floor, remove eyeglasses, and loosen anything around the neck that may affect breathing.
- DON'T hold the person down; OR try to stop the movements; OR put anything in the mouth; OR hold the tongue down (this can injure the teeth or jaw).
- Turn them gently onto one side to keep the airway clear, stay with them until the seizure ends and they're awake.
- Call 911 if the seizure lasts longer than five minutes without signs of slowing down or if they have trouble breathing, or appear to be in pain.
- A medication can be given to stop seizures that last over 3 to 5 minutes.

References: Kids Health: www.kidshealth.org; www.epilepsyfoundation.org; www.healthychildren.org; "Patient Information: Seizures in Children", www.uptodate.com; Seizures Lecture, Children's Hospital, Boston, MA: Lisa Duffy PhD(c), CPNP-PC