

Understanding Epilepsy

By LaNeta Crighton



A child living with epilepsy is just like any other child—most of the time. He can run, play sports, and go to school and sleepovers, but lurking in the background is always the question: what if? Lisa T., a nurse and mother of two young boys, says finding her 7-month-old son having a seizure was the most terrifying experience of her life.

Andrea Racioppi, associate director of the [Epilepsy Foundation of New Jersey](#), admits seizures can be frightening to watch. During a tonic-clonic seizure, a child will lose consciousness and drop to the ground. He'll then experience muscle stiffening and rhythmic jerking of the arms and legs. He may become blue in the face or lose bladder or bowel control.

Facts, not fear

Epilepsy is one of the most common neurological disorders of childhood in this country. Approximately half of all cases begin before age 25, many of them in early childhood. According to the Epilepsy Foundation, more than 300,000 American children under 14 have epilepsy. Usually, the cause is unknown, but in cases where a cause is identified, it's often related to head trauma, lack of oxygen during birth, infections like meningitis or encephalitis, brain defects, and tumors. Genetics play a role, but the risk of developing epilepsy is only slightly higher for those with a family history of the disorder.



Seizures occur when a brief, sudden surge of electrical activity in the brain disrupts brain function. Usually, epilepsy is diagnosed when seizures happen more than once with no known medical cause. Racioppi says one of every 10 people will have at least one seizure in their lifetime. Seizures are a symptom of epilepsy, but having a single one doesn't mean a child has epilepsy.

Dr. Jayoung Pak, assistant professor of neurosciences and pediatrics at the University of Medicine and Dentistry of New Jersey, says epilepsy isn't always a lifelong diagnosis. "The brain is still developing in children, so it's much more excitable. Epilepsy can be outgrown, and 85 percent of children can be taken off medications," she says.

Fear and a lack of understanding about epileptic seizures can cause a child to be shunned by other children and their parents. Racioppi frequently encounters this bias.

"Unfortunately, there is still a stigma attached to saying, 'I have epilepsy.' Education is the only way to overcome that," she says. She believes information is the most important tool her organization provides, and to that end, The Epilepsy Foundation of New Jersey offers programs to increase awareness and improve the understanding of epilepsy among New Jersey school nurses, teachers, parents, and families.

Diagnosis and treatment

Diagnosing epilepsy is a complicated process that includes a detailed health history and medical and neurological examinations. A physician also may order other diagnostic tests and blood tests. The area of the brain that's affected and the type of seizure that occurs determine the course of treatment. Although the majority of people with seizures are treated by family physicians, a neurologist who specializes in epilepsy should follow those with more severe cases.

There are more than 40 kinds of epileptic seizures, categorized into two main types:

- **Generalized Seizures.** These occur in both sides of the brain at once. They may be obvious (such as tonic-clonic seizures) or so subtle they go undetected. Absence seizures can occur several times a day and are characterized by a brief (10 to 15 seconds) loss of consciousness. During this time, the child appears to be staring blankly or merely daydreaming.
- **Partial Seizures.** Partial seizures are limited to one area of the brain. The symptoms are unique to each child and can affect any of the senses (taste, smell, hearing, touch, vision). They may also cause strange sensations in the head, stomach, and chest, or involuntary muscle movement, sweating, and emotional or memory disruptions.

Medication, diet, nerve stimulation, and surgery are all treatment options that have been successful in children. Pak believes one of the biggest challenges is finding what works for each individual. She follows every patient and his family closely, keeping an eye on how the child is doing in school.

"I always require children to bring their report card to me. This is one way I follow their progress," Pak says.

Behavior problems, or a drop in grades, may indicate seizures aren't being adequately controlled or that medication needs adjustment, she says. Such attention to detail helps to develop a plan for better seizure control, which leads to fewer long-term complications.

Epilepsy is prevalent among those with other disabilities, such as:

- autism (25.5 percent)
- cerebral palsy (13 percent)
- Down syndrome (13.6 percent)
- mental retardation (25.5 percent)

—Epilepsy Foundation of New Jersey

What to do if a child has a seizure

- Remain calm and supportive.
 - Place a pillow or something soft under his head and turn the child to his side.
 - Remove furniture or obstacles that could cause injury.
 - Avoiding placing objects in his mouth. They could injure the mouth or teeth.
 - Time the seizure. Call 911 if it lasts more than five minutes, or if multiple seizures occur.
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