

CHILDREN WITH NEW ONSET SEIZURES

What is a seizure?

Seizures are an electrical storm of the brain. This sudden abnormal wave of electrical activity interferes with the normal function of the brain causing different symptoms depending on which part of the brain is affected. Typical symptoms include staring, confusion, jerking movements, or shaking. If the whole brain is involved, then the seizure causes loss of consciousness. Your child may not even know they had a seizure because seizures usually interfere with memory.

What causes seizures in a child?

Seizures can be provoked as a single event in an otherwise normal child or can be caused by epilepsy. “Epilepsy” is a persistent underlying tendency to seizures, also called a “seizure disorder”. If a child has had just one seizure, then it is most likely provoked by something, rather than due to epilepsy. Seizures in children are often provoked by high fever, infection, head trauma, intoxications, drug effects, lack of oxygen supply to brain, or fainting.

How common are seizures in children?

Seizures are common in children. About 5% of children will have at least one seizure.

What is epilepsy?

Epilepsy is a disorder in which seizures occur spontaneously because of an underlying tendency for the brain to have seizures. It is diagnosed as “epilepsy” when two or more **unprovoked seizures** occur at least 24 hours apart.

Are there different types of seizures?

Yes, there are different types. Common types of seizures are:

Simple partial seizures: Normal awareness with symptoms isolated to one part of the body, such as twitching or numbness of a hand or leg or abnormal vision, smell or taste. It can also occur as difficult to describe sensations of fear or apprehension.

Complex partial seizures: Typical symptoms include staring, sitting motionless, picking at clothes, smacking lips, swallowing repeatedly or wandering around. There is lack of awareness of the surroundings and lack of memory for the event.

Atonic seizures: Sudden loss of muscle tone with falling to the ground. Recovery is quick.

Myoclonic seizures: Brief forceful jerks which can affect the whole body or just part of it.

Absence seizures: May appear to be daydreaming or “spacing out”. They are momentarily totally unaware of what is happening around them.

Tonic-Clonic Seizures. Sudden loss of consciousness; body stiffening, and unprotected falling to the ground, followed by jerking movements. A blue tinge around the mouth is likely but lack of oxygen is rare since breathing is forceful. Loss of bladder control may occur. After one or two minutes the jerking movements usually stop and consciousness slowly returns.

Will my child have another seizure?

The risk of having another seizure after the first seizure ranges from 20% to 80%. Most recurrences happen within the 6 months of the first seizure. The risk of another seizure depends on cause. If the seizure is provoked by fever, for instance, then the chance of further seizures is low except in the setting of fever. If the seizure was caused by epilepsy, then it is very likely that further seizures will occur.

How can I prevent another seizure?

Besides the medications that are given to prevent seizures, you may decrease the risk of having another seizure by avoiding triggers of a seizure if you can identify them and by avoiding missing medication doses. A few children with epilepsy have seizures precipitated by specific circumstance such as video games or flashing lights. If this is the case for your child, then these should be avoided.

What type of tests should my child get to evaluate his/her seizure?

Depending on your doctors evaluation you may expect blood tests, EEG and neuroimaging testing such as magnetic resonance imaging (MRI).

What is an EEG?

EEG (electroencephalogram) is a diagnostic tool using a machine that translates the electrical activity of the brain into a series of wavy lines on a computer screen. It is used to see if there are any irregularities of brain activity (or “epileptiform” spikes in brain voltage”) that may produce seizures. Small metal discs with thin wires, called electrodes, are pasted on the scalp. They are connected to a computer that records the result of the test. It is usually a very well tolerated, painless test that does not cause any pain.

What should I do if I witness a seizure?

Stay calm, move objects away that the child could hit, turn the child gently onto one side to help keep the airway safe. Do not put anything in the child’s mouth including your hand, any pills, food or drink because it will cause the child to choke on it. If the jerking activity lasts more than 5 to 10 minutes call 911. Please also review the section of “**First Aid for Seizures**” on this website.

Should I tell the school about my child’s seizures?

Yes. You may need to contact your child’s teacher and school nurse to coordinate caring for your child if they have a seizure during school.

Should my child be on medication?

If your child has epilepsy, then your doctor may recommend using medications, which are generally called antiepileptic drugs (AEDs). AEDs are chemical compounds that prevent seizures by controlling electrical signals in the brain. There are more than 20 AEDs available. AEDs do not cure the condition but will often prevent seizures if they are taken regularly. Your child’s physician will choose an AED based upon your child’s seizure type and age, as well as potential side effects. Please refer to “**Antiepileptic Drugs: Frequently Asked Questions**” on this website for further information.

What side effects will my child have from antiepileptic drugs?

We do not expect your child to have any side effects from the medication; however, some side effects are possible. If your child has a problem that you think is a side effect of a medication, you should tell your doctor. If the medication causes side effects then it is usually addressed by decreasing the dose or changing medications. The goal of treating epilepsy is “no seizures, no side effects”.

Will seizures hurt my child’s brain?

Seizures do not cause brain damage in the usual sense of the word “damage”. In some cases, seizures are associated with brain injury and loss of brain cells, such as temporal lobe epilepsy. However, in the vast majority of cases, seizures are not associated with brain damage that can be detected by MRI. However, seizures and AEDs can interfere with memory, thinking, and social functioning so that they interfere with normal development. If you are concerned about your child’s development, school performance, or social interactions, then you should discuss this with your doctor who may refer you to other specialists.