CHILDREN WITH NEW ONSET SEIZURES

WHAT IS A SEIZURE?
A seizure can be thought of like an electrical storm in the brain. The sudden abnormal electrical activity can interfere with the normal function of the brain and cause different symptoms. Symptoms depend on what part of the brain is affected by the seizure and may include staring, confusion, jerking movements, or shaking. If the whole brain is involved, then the seizure will cause a loss in consciousness.

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 of the brain to have seizures. 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:** Isolated twitching, numbness, sweating, dizziness, nausea/vomiting, disturbances to hearing, vision, smell or taste. No loss of consciousness occurs, and the child remains aware of his/her environment.

• **Complex partial seizures:** Staring, motionless, picking at clothes, smacking lips, swallowing repeatedly or wandering around. They are not aware of their surroundings and are not fully responsive.

• **Atonic seizures:** “Drop attacks” or sudden, rapid fall to ground with rapid recovery.

• **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 unresponsive and unaware of what is happening around them.

• **Tonic seizures:** Stiffening of the entire body or just part of the body.

• **Tonic-Clonic Seizures:** Sudden loss of consciousness with body stiffening followed by continuous jerking movements. A blue tinge around the mouth is likely but lack of oxygen is rare. Loss of bladder and/or bowel control may occur.
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 the 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 IN MY CHILD?
Besides providing your child the medications that are prescribed to prevent future seizures, you may decrease the risk of having another seizure by avoiding the triggers of a seizure, if you can identify them. Some children with epilepsy have seizures precipitated by specific circumstances 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 doctor’s evaluation you may expect blood tests, an EEG and/or neuroimaging testing such as magnetic resonance imaging (MRI).

WHAT IS AN EEG?
An EEG (electroencephalogram) is a diagnostic tool that translates the electrical activity of the brain into a series of 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 during the seizure, 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, pills, food or drink. If the seizure does not stop after 3-4 minutes then prepare to administer a rescue medication and to call the rescue squad. If your child awakens and returns to normal, then there is no need to call the rescue squad or take him or her to a hospital. Please also review the section of “First Aid for Seizures (Pediatrics)” on this website.

SHOULD I TELL THE SCHOOL ABOUT MY CHILD’S SEIZURES?
Yes. The school should be notified that your child has epilepsy so that they will not be surprised if a seizure occurs. If your child needs medication administered during school hours, a permission slip and instructions may be necessary.

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 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, as well as potential side effects. Please refer to “Children and Antiepileptic Drugs (AEDs)” on this website for further information.