Seizures are one of the problems that can happen after brain injury. Seizures are sudden, uncontrollable, electrical changes in the brain that disrupt normal function. Most seizures cause a loss of awareness and uncontrolled body movement. There are many types of seizures, and signs may differ based on the part of the brain affected. Most seizures last from 30 seconds to 2 minutes.

### Signs of a seizure

**Before the seizure**, a warning sign, called an **aura**, may occur. The aura may be a headache, changes in vision, hearing noises or smelling a scent, such as smoke.

**During the seizure**, these signs may occur:
- Staring spells
- Facial twitching
- Problems breathing
- Black outs, loss of memory or confusion
- Drooling
- Problems controlling the bowels or bladder
- Convulsions or uncontrollable body motions, such as chewing motions, body stiffening, jerking or lip smacking
- Changes in sensation or vision

**After the seizure**, the time before you or your loved one wakes up is called the **postictal state**. Most people are very tired and confused during this time.

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**If you or your loved one has never had a seizure before or if the seizure lasts longer than 3 minutes:**
- In the hospital, **push the call button**.
- At home, **call 911 right away**.

A person with epilepsy should always wear a medical alert necklace or bracelet.

### Types of seizures

Knowing the type of seizure you or your loved one has helps the doctor find the best treatment. There are two main types of seizures:
- **Partial seizures**, also called focal seizures, that affect one part of the brain.
- **Generalized seizures** that affect both sides of the brain.

Sometimes, a seizure may start in one part of the brain then spread to another part. This is called a **secondary generalized seizure**.

### Testing and treatment

Your doctor will ask you about your signs and may order one or more tests to check the cause of the seizure. An electroencephalogram (EEG), a test that looks for abnormal brain activity, is the most common test. Brain scans, blood tests and other tests to measure motor skills, behavior and cognition may also be done.

Anti-seizure medicines may be ordered to control seizures. Your doctor may discuss other treatments with you.
Seizure triggers
For patients with epilepsy, some factors may make a seizure more likely to occur. These include:
- Lack of sleep
- Stress
- Alcohol and drug use
- Smoking cigarettes
- Hormonal changes, such as with a menstrual cycle

Talk to your doctor if you have a seizure.
Your medicine, how often you take the medicine or the amount of the medicine you take may need to be changed.

How to help your loved one
During the seizure:
- Keep calm and let your loved one know you are there to help.
- Do NOT hold him or her down.
- Time how long the seizure lasts. Seizures can last from seconds to several minutes.
- Protect your loved one from injury by moving nearby objects.
- Loosen tight clothing, especially around the neck.
- Turn your loved one on his or her side.
- Do NOT put anything into your loved one’s mouth.
- Do NOT start CPR. If your loved one does not start breathing after the seizure has stopped, call 911 and then start CPR.
- Stay with your loved one until his or her breathing is normal, and he or she is fully awake.

After the seizure, allow your loved one to lie quietly. It may take some time for him or her to be fully alert. When your loved one wakes up, call him or her by name. Speak calmly and tell your loved one what happened and where they are.

If your loved one is injured, call their doctor’s office, or take him or her to an urgent care or emergency department.

Take a video of the seizure or write down what happened during the seizure. Share this with the healthcare team along with:
- Any warning signs before the seizure started.
- The parts of the body the seizure affected or injured.
- How long the seizure lasted.
- What your loved one was doing before and after the seizure.

Call 911 if:
- The seizure lasts more than 3 minutes.
- A second seizure starts shortly after the first one stopped.
- Your loved one is not breathing or does not wake up after the seizure has stopped.

Living with seizures
Seizures can affect daily living, self-esteem and freedom in daily activities. You may not, for example, be able to drive for six months after a seizure.

If you or your loved one has depression, trouble sleeping, trouble eating or functioning, talk to the doctor or any member of the healthcare team. Seek out support groups to share experiences, frustrations and tips on how to cope with seizures.