

# SEIZURE FIRST AID



  
**Epilepsy Australia**  
*Australia's largest consumer-led epilepsy organisation*

## WHAT IS EPILEPSY?

Epilepsy is a disorder of brain function that takes the form of recurring seizures.

## WHAT IS A SEIZURE?

Our every thought, feeling or action is controlled by brain cells that communicate with each other through regular electrical impulses. A seizure occurs when sudden bursts of electrical activity disrupt this pattern. Communication between cells becomes scrambled and our thoughts feelings or movements become momentarily confused or uncontrolled.

While seizures can be frightening, in most instances they stop without intervention. Once the seizure is over the person gradually regains control and re-orientes themselves without any ill effects. The majority of people diagnosed with epilepsy will have their seizures controlled with medication.

## Recognising seizures

It is internationally agreed that while seizures are very complex they do fall generally into two categories: partial or focal on the one hand and generalised on the other. Partial or focal seizures start in one **part** of the brain [that is at a focal point in the brain] and, affect that part of the body controlled by that part of the brain. Generalised seizures involve the whole brain and therefore involve the whole body.

### ■ Simple partial seizures

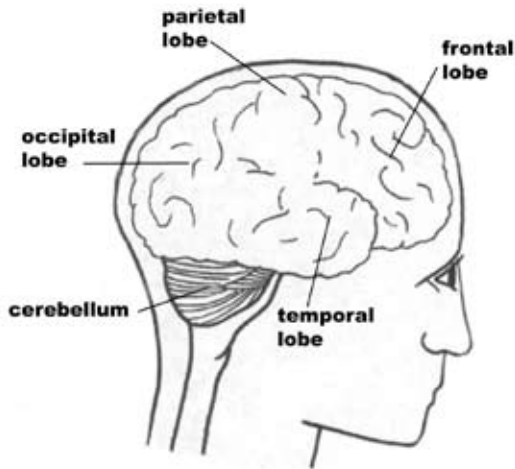
Simple partial seizures are localised seizures, affecting only one part of the brain. The symptoms the person experiences will depend on the function that part of the brain controls. The seizure may involve the involuntary movement or stiffening of a limb, feelings of déjà vu, an unpleasant smell or taste, or sensations in the stomach such as 'butterflies' or nausea. The person remains fully conscious throughout the seizure. The seizure usually lasts for less than a minute and then the person recovers. When a partial seizure spreads and involves the whole brain, it is called a secondarily generalised seizure.



*Partial or focal seizures originate in one part of the brain.*



*Seizures which begin in one part of the brain can spread to involve the whole brain to become secondary generalised seizures.*



*Seizures and epilepsy are sometimes named in reference to the lobe or section of the brain in which the seizure activity originates.*

### ■ **Complex partial seizures**

This type of seizure also affects only one part of the brain but the person's conscious state is altered. The person may often appear confused and dazed; and may do strange actions like fiddle with their clothes, make chewing movements or make unusual sounds. The seizure usually lasts for one to two minutes but the person may be confused and drowsy for some minutes to several hours afterwards.

### ■ **Absence seizures [previously known as petit mal]**

This is a generalised seizure involving the whole brain and is more common in children. With this type of seizure, the person loses awareness of what is happening around them but they rarely fall to the ground. They simply stare and their eyes might roll back or their eyelids flutter.

It can be difficult to tell the difference between absence seizures and daydreaming. However, absence seizures start suddenly, last a few seconds, then stop suddenly and the person goes on with what they were doing. Although these seizures last only a few seconds, they can occur many times daily, and thus be very disruptive to learning.

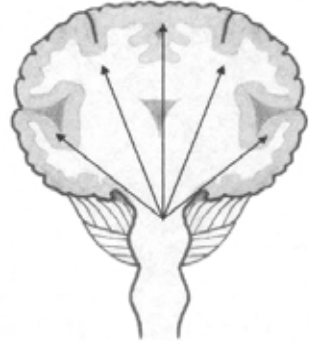
### ■ **Myoclonic seizures**

Myoclonic seizures are uncontrolled muscle jerks. These seizures usually occur soon after waking or before going to bed when the person is tired. As a generalised seizure a loss of consciousness occurs but it is very brief and hardly noticeable.

## ■ Tonic clonic seizures [previously known as grand mal]

Tonic clonic seizures are generalised seizures involving the whole brain. It is the seizure type most people think of when they think of epilepsy. Some people may experience an 'aura' such as a feeling of déjà vu, a strange feeling in the stomach or a strange taste or smell, just before the seizure begins. The aura itself is a simple partial seizure.

During a tonic clonic seizure a person's body stiffens and they fall to the ground [the tonic phase]. Their limbs then begin to jerk in strong, symmetrical, rhythmic movements [the clonic phase]. The person may dribble from the mouth, go blue or red in the face, or lose control of their bladder and/or bowel.



*Seizures which involve the whole brain are called primary generalised seizures.*

Although this type of seizure can be frightening to watch, the seizure itself is unlikely to harm the person having the seizure. They may however vomit or bite their tongue and can sometimes injure themselves if they hit nearby objects as they fall or convulse. The seizure normally stops after a few minutes. At this time the person is usually confused and drowsy. They may have a headache and want to sleep. This drowsiness can last for a number of hours.

## ■ Tonic seizures

Tonic seizures are generalised seizures causing the muscles to stiffen and if the person is standing they will fall quite heavily to the floor. These seizures can occur in clusters during sleep but if they occur while the person is awake, they can often cause head injury. If appropriate it is advisable for the person to wear a protective helmet to avoid injury. Seek medical attention if the person is injured.

## ■ Atonic seizures

Atonic seizures are generalised seizures that affect muscle tone causing the person to collapse to the ground. Often called 'drop attacks' or astatic seizures, these seizures can cause head or facial injury. Protective headwear is advisable to avoid constant injury. Recovery is generally quite quick. Seek medical attention if the person is injured.

# SEIZURE FIRST AID



What to do when someone has a seizure depends on the type of seizure they are having.

## ■ TONIC CLONIC SEIZURES

A *convulsive* or *tonic clonic* seizure starts when someone loses consciousness, stiffens unexpectedly, falls to the ground and starts jerking.

### How to help:

- ✓ **Time the seizure.**
- ✓ **Protect from injury** – remove any hard objects from the area
- ✓ **Protect the head** as best you can - place something soft under the head
- ✓ **Gently roll the person on their side** – as soon as it is possible to do so to assist with breathing
- ✓ **Stay with the person** until the seizure ends naturally
- ✓ **Calmly talk** to the person until they regain consciousness. Let them know where they are that they are safe and that you will stay with them while they recover.
- ✓ **Keep onlookers away**
  
- ✗ **Do not** restrain the person's movements.
- ✗ **Do not** force anything into the mouth.

After the seizure, the person should be placed on their left side. Keep in mind there is a small risk of post-seizure vomiting, before the person is fully alert. Therefore, the person's head should be turned so that any vomit will drain out of the mouth without being inhaled. Stay with the person until he/she recovers (5 to 20 minutes).

*In the event of a seizure follow instructions in the individual's seizure care plan. However if you do not know the person, or there is no seizure care plan:*

### Call an ambulance 000 if:

- ✓ the seizure activity lasts more than **5** minutes or a second seizure quickly follows.
- ✓ the person remains non-responsive for more than **5** minutes after the seizure stops
- ✓ the person is having a greater number of seizures than is usual for them
- ✓ the person is injured, goes blue in the face or has swallowed water.
- ✓ the person is pregnant.
- ✓ you know, or believe it to be, the person's first seizure.
- ✓ you feel uncomfortable dealing with the seizure.

## Complex Partial Seizure



With this type of seizure the person may appear unresponsive and confused. Automatic movements such as smacking of the lips, wandering, or fumbling movements of the hand may be present. He or she may display inappropriate behaviour that may be mistaken for alcohol or drug intoxication.

- ✓ During a complex partial seizure you may need to gently guide the person past obstacles and away from dangerous places.
- ✓ As the seizure finishes, establish supportive communication and ask if they are OK.
- ✓ Call an ambulance if the person doesn't start to recover after 5 minutes.

## Absence Seizure

An absence seizure causes loss of awareness for a brief period. The person stares vacantly, the eyes may drift upwards and flicker. It may be mistaken for daydreaming. Recognise that a seizure has occurred, reassure the person and repeat any information that may have been missed during the seizure.

## FIRST AID FOR SEIZURES OCCURRING IN WATER



In certain situations, a loss of consciousness is especially dangerous and emergency care must go beyond the routine procedures. A seizure in water is a life-threatening situation.

If someone is having a seizure in water e.g. bath, swimming pool:

- ✓ Support the person in the water with the head tilted so the face and head stay above the surface.
- ✓ Remove the person from the water as soon as the active movements of the seizure have ceased.
- ✓ Check to see whether the person is breathing. If not, begin CPR immediately.
- ✓ Call an ambulance. Even if the person appears to be fully recovered, he or she should have a full medical checkup. Inhaling water can cause lung or heart damage.

**Precaution:** If a seizure happens out of the water during swimming activity, the person should not continue with swimming or water sports that day, even if the person appears to be fully recovered.

# WHEELCHAIR FIRST AID



## If someone starts to have a seizure while:

Confined in a **wheelchair**

Seated on a **bus, train or tram**

Strapped in a **pram or stroller**

## Stay Calm, Stop and Observe

**Don't** try to stop the seizure.

**Don't** put anything in the person's mouth.

**Don't** try to remove them from their position – in most cases the seat provides some support.

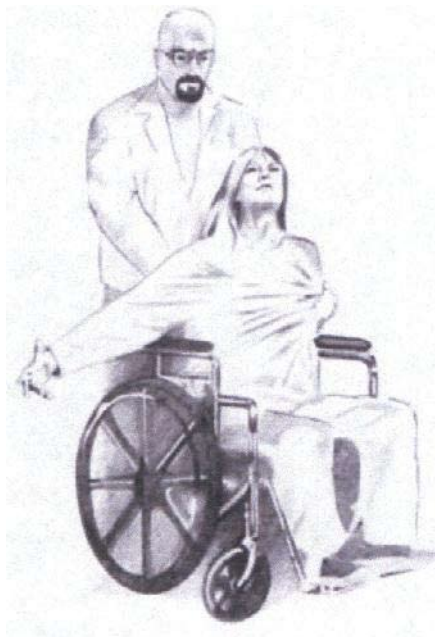
**However**, if there is food, water or vomit in their mouth the person will need to be removed from their seat and rolled onto their side immediately.

If this does not apply use the guidelines outlined here.

## During a seizure:

- ✓ Protect the person by preventing them from falling if there is no seat belt.
- ✓ Make sure the wheelchair or the stroller is secure.
- ✓ Protect the person by supporting their head. Something soft under the head will help if there is no moulded head-rest.
- ✓ Check whether you need to move any hard objects that might hurt arms and legs in particular.
- ✓ Sometimes they may need to be taken out of the chair at the end of the seizure if the airway is blocked.

Consciousness usually returns within a few minutes. Reassure the person and tell them what has happened.





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Disclaimer: While the information contained within is to the best of our knowledge both accurate and useful, it is not meant to substitute for direct contact with your community based epilepsy association or with appropriate health professionals.