



Tonic-Clonic Seizures

Tonic means stiffening, and clonic means jerking. These are the two stages in a tonic clonic (TC) seizure, previously called Grand Mal - or convulsions, but the term tonic clonic has been used since the new international classification of seizures was formulated in 1981.

A TC seizure involves the whole brain. Sometimes it starts immediately without warning, but often it starts with a smaller seizure. The person may be aware of feelings of déjà vu, fear or apprehension, tingles and pins and needles on one side of the body, a strange taste or smell, or an odd feeling in the stomach. These are actually small seizures on one side of the brain, and people often refer to these as auras, or warnings.

A TC seizure involves loss of consciousness followed by general stiffening of the body. The person usually falls and may utter a cry, caused by the air being forced through the contracting vocal cords. In the tonic stage the muscles are rigid, and breathing may be briefly impaired, resulting in the face and lips going white, grey or blue from reduced oxygen. This stage may last for seconds, or a minute or two and is followed by the clonic, or jerking stage. Here, the muscles contract and relax and breathing begins again.

The person may bite their tongue and lose control of their bladder, or more

rarely, bowel, however this does not always occur and it happens much less in children. Excessive saliva may be produced, but again, not always. The clonic jerking phase usually lasts for one or two minutes, then gradually slows down and stops.

While the seizure may look dramatic, it's important to understand the person is not in any pain, is not aware of what is happening and most seizures of this type are over in two to four minutes. Be aware that occasionally people can still hear, so do not say anything which may be upsetting to them.

The recovery period follows, where the person may need to sleep or rest for periods varying from minutes to hours. Some people feel sick, headachy, or tired. They may have hurt themselves in the fall, or during the jerking phase. They may be tired and confused when they eventually wake, so it's important to speak reassuringly to the person, tell them they have had a seizure and allow them to rest until they feel well again. To judge their level of awareness, ask questions such as name, address and phone number.

If a TC seizure last more than thirty minutes, or a second one occurs before consciousness is regained, a dangerous condition called convulsive status epilepticus has developed.

Therefore medical help should be sought immediately if a seizure has not stopped within five minutes.

An ambulance should be called in the following cases:

- A tonic clonic seizure has not stopped in five minutes
- A second seizure occurs before consciousness is regained from the first one
- The person injured themselves when they fell
- The person is pregnant
- It is a first known seizure
- The seizure occurred in water (water may have been inhaled)
- You are in doubt

First Aid for a tonic clonic seizure

- Remain with the person and stay calm
- Check the time the seizure started
- Protect from injury - remove any hard objects from the area
- Gently roll the person on their side as soon as possible, to assist their breathing
- Talk to the person reassuringly to help them, and to know when they actually have regained consciousness
- Stay with the person until they are fully recovered (5-25 minutes)
- If the seizure has not stopped in five minutes, call an ambulance
- DO NOT RESTRAIN THE PERSON'S MOVEMENTS
- DO NOT GO NEAR THE PERSON'S MOUTH
- DO NOT GIVE THE PERSON WATER, TABLETS OR FOOD UNTIL THEY ARE FULLY ALERT AND ABLE TO SWALLOW PROPERLY

Although every effort has been made to ensure up to date and accurate information is provided, Epilepsy Queensland cannot accept any liability in relation to the information provided. It is strongly recommended that you discuss any information with your doctor or other relevant organisation.