

epilepsy



The brain is made up of millions of cells called neurones. These cells send messages to each other using chemicals called neurotransmitters. Usually these messages are sent in a very orderly way, but sometimes they become uncontrolled and a seizure may be triggered. Anyone could have a seizure if something major happened to their brain, but for some people seizures are triggered much more easily. Seizures may also be called fits or convulsions.

Children and young people with epilepsy can usually do the same things as other people, with some safeguards for some activities.

What to do if someone is having a seizure

What first aid needed depends on the type of seizure. Someone with an absence seizure, for example, usually does not need any first aid.

If the person is having a tonic-clonic (convulsing) seizure:

- move harmful objects away, or move the person to a safe place
- place something soft under the person's head and shoulders
- do not put anything into the mouth
- do not try to hold the person down, or try to stop the movements
- as soon as the seizure has stopped, roll the person onto her side to help with breathing

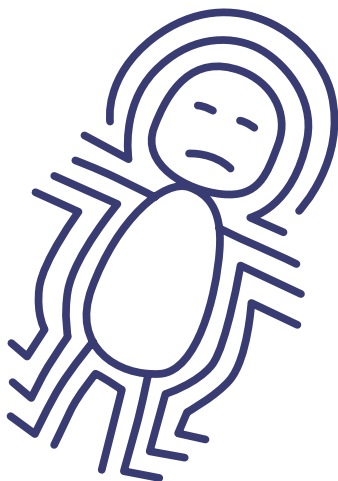
- make sure someone stays with the person after the seizure until she is fully awake and aware, because most people will have a period of sleep or drowsiness, and then be confused when they wake up.

Call for emergency help, e.g. call an Ambulance (000 in Australia) if:

- the seizure lasts for longer than five minutes
- another seizure follows soon after the first
- the person has been injured
- you are not sure what to do.

Children should be seen by a doctor to find out why the seizure has happened, unless they are known to have had many seizures. They should also be seen if the seizure has lasted for more than a few minutes, or if they are unwell or have been injured.

Do not drive if your child is having a seizure. Wait until the seizure has stopped, and then only drive if you are sure that you are calm enough to drive safely.



What is epilepsy?

- Epilepsy is seizures (fits) that occur more than once and that are not triggered by fever (febrile convulsions) or a new injury to the brain (concussion, infection or other illness).
- A seizure occurs when there is a sudden increase in the activity of the brain.
- In most children no cause can be found for the epilepsy, however sometimes epilepsy in children can be caused by a previous head injury, infections of the brain, or problems during the pregnancy.
- Epilepsy sometimes occurs in several people in the same family.
- Epilepsy occurs in about four to six in 1000 children.

Febrile convulsions and epilepsy

- About one in 20 children have a febrile convulsion (fits with a high temperature). Most children who have febrile convulsions do not go on to have epilepsy.
- Many children who go on to have epilepsy will have their first fit triggered by a fever.
- One to two percent of children who have a febrile convulsion will develop epilepsy. This is more likely if:
 - there is a family history of epilepsy
 - the first febrile convulsion lasted more than a couple of minutes

- the child had a neurological (brain) condition before the seizure
- the child has had one or more febrile convulsions with a low temperature.

Types of seizures

There are many types of seizures (or epileptic fits). The more common types include:

- Absence seizures (previously called petit mal).
 - The child suddenly stops moving or talking, his face goes blank, and his eyelids flicker.
 - The episode rarely lasts more than 30 seconds, then the child goes on with what he was doing before.
 - A child usually is not drowsy after an absence seizure, and does not realise that it has happened.
 - This can happen many times a day.
- Generalised tonic-clonic seizures (grand mal).
 - The child suddenly loses consciousness, her eyes roll back, and all of the body's muscles contract (the child goes stiff).
 - Breathing stops (for a few moments), so that the child often goes blue.
 - After a short time (usually less than 30 seconds) the muscles relax and contract (stiffen) rhythmically for some time, from seconds to a few minutes.
 - Often there is loss of bladder control and the child wets her pants.

- After the muscle contractions stop the child usually sleeps or is drowsy for 30 minutes to several hours.
- Other seizures
 - There are many other sorts of seizures which might cause, for example, odd movements. See the site of the Epilepsy Association of SA and NT for more information (see the link at the end of this pamphlet).
 - All children who are having seizures, whatever they are like, should be seen by a doctor.

Investigating a seizure

- The doctor who sees the child will want very detailed information about what happened during the seizure, what happened before it (e.g. was the child unwell), and what has happened to the child in the past (injuries, illnesses etc).
- Often an EEG (electro-encephalogram) will be done. This is a recording of the brain's electrical impulses. Many electrodes are attached to the scalp to measure the brain waves. This does not hurt the child, although some children find it hard to sit still while the test is being done. Some types of epilepsy will show on the EEG, but sometimes the EEG is normal even if there is epilepsy.
- Other investigations, such as CT scans and MRI scans may be done.

Treating epilepsy

- Most children are not started on any medicine after the first fit unless the first seizure was long or unusual, or they have repeated seizures.
- There are many different medicines used for epilepsy, depending on the type of seizures, and how often seizures are happening.
- It is very important, once a child is taking any medicine for epilepsy, not to stop it suddenly, as this can trigger a severe seizure.

Other problems caused by epilepsy

- Most children who have epilepsy will have only a few seizures, and their seizures will be well controlled on medication.
- If the seizures only happen occasionally, there will usually be no effects on their learning or development.
- Some children may have many seizures even with treatment, and they will often have difficulties with development and learning. The effects of epilepsy depend on the type and the cause.
- People with epilepsy are encouraged to be active and to live a normal life, however if the seizures are not under control some activities may need to be limited (e.g. swimming may need to be very closely supervised).

- If the fits cannot be controlled the young person may not be allowed to do things like mountain climbing and scuba diving.
- Driving a car may not be allowed if the seizures have not been under excellent control (e.g. no convulsions for several years). It is essential to talk to a doctor about the limits on driving.

Epilepsy and pregnancy

- If a pregnant woman has seizures, or is taking medication to control them, this may affect a baby before it is born.
- Control of epilepsy can improve or worsen during pregnancy.
- It is very important for a woman who is being treated for epilepsy to see a doctor before becoming pregnant, to plan the safest management during the pregnancy.
- If an unplanned pregnancy does occur, see the doctor as soon as possible, but do not stop any medication. Stopping medication suddenly can trigger a severe convulsion.



For more information contact:

- Local Community Child Health Nurse
- Local Family Doctor
- Ngala Family Resource Centre Helpline
8.00 a.m. - 8.00 p.m. 7 days a week
Telephone (08) 9368 9368
Outside metro area - Freecall 1800 111 546
www.ngala.com.au
- Parent Help Centre/Parenting Line
Telephone (08) 9272 1466 (24hr service)
Outside metro area - Freecall 1800 654 432
- Epilepsy Association of Western Australia
Telephone (08) 9346 7699
Epilepsy Helpline 1300 852 853
<http://members.westnet.com.au/ict/eawa>

Internet sites:

- Epilepsy Information pages on the Epilepsy Association of SA and NT web site
www.epilepsyassociation.com.au/home.php
- EpiAction (British Epilepsy Association)
www.epilepsy.org.uk/index.html
- Epilepsy Foundation of America
www.epilepsyfoundation.org
- Epinet - Epilepsy Foundation of Victoria
www.epinet.org.au

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