

What is Epilepsy?

Epilepsy is a disorder of brain function that takes the form of recurring seizures. The seizures can be either non-convulsive or convulsive.

What isn't Epilepsy?

- It is not a mental health condition.
- It is not a disability – unless seizures are extremely frequent and unable to be controlled.
- It is not due to the effects of drugs or alcohol – although sadly onlookers may assume this.
- It is not contagious.

Can Anyone Get Epilepsy?

Yes. Epilepsy is a common condition in our community and can develop at any age, regardless of gender or ethnic group.

- Over 20,000 Tasmanians will develop epilepsy in their lifetime .
- 1 in 25 Australians will develop epilepsy in their lifetime.
- 1 in 10 will have a seizure at some time in their life.
- Although once considered a disorder of the young, the over 55-years age group is now most at risk due to high rates of cerebrovascular, respiratory and cardiac events that can lead to recurring seizures (epilepsy).

What Causes Epilepsy?

- We know that structural abnormalities in a developing brain; lack of oxygen during birth or a stroke; brain tumours; head injuries: and infections such as meningitis or encephalitis can cause epilepsy.
- We know that diabetes and Alzheimer's disease can lead to epilepsy.
- We know that it can be hereditary.

However we don't yet know what causes epilepsy in 50% of people with the condition.

At Epilepsy Tasmania we believe research is the key to answering questions about epilepsy, and we actively support research into epilepsy diagnosis and treatment. You too can support this research with a monetary donation or a bequest in your will. Contact our office on 6344 6881 for more information.

We encourage people living with epilepsy and their families to take part in research that will further enhance better epilepsy health outcomes, treatment and potentially a cure. Please see [here](#) for further details.

Can Epilepsy be Cured?

Not yet. But most types of epilepsy can be controlled through anti-epileptic medication.

If seizures continue to recur whilst on medication there may be other treatment options available such as the ketogenic diet or surgery to stimulate the vagus nerve. Read more about other treatment options [here](#).

Research is being conducted all the time to find better and more cost-effective treatments for epilepsy.

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How is Epilepsy Diagnosed?

Epilepsy is usually diagnosed when a person has had at least one seizure that wasn't provoked or caused by any other known medical condition.

Being diagnosed with epilepsy simply means that you are likely to have recurring seizures. Epilepsy is a diverse family of disorders, with numerous syndromes and 46 different types of seizures. Accurate identification of the epilepsy syndrome will ensure the most effective treatment.

An eyewitness account of the event and the person's own description of what happened prior to and how they felt during and afterwards is often a doctor's best initial diagnostic tool before referring to a neurologist for medical testing. If you are a family member witnessing a seizure, using your mobile phone to capture it on video can be extremely helpful for the diagnosing doctor.

A neurological examination will generally include a test to measure the electrical activity of the brain (EEG) to determine where in the brain the seizure activity is occurring. Specialised imaging tests such as computerised tomography (CT) scans and magnetic resonance imaging (MRI) scans may also be required, along with blood tests.

For some people, a hospital stay may be required so that the seizures can be observed.

What is a Seizure?

All of our thoughts, feelings and actions are controlled by brain cells that communicate with each other through regular electrical impulses. These impulses travel along a network of nerve cells (neurons) within our body, via chemical messengers called neurotransmitters.

A seizure occurs when the brain's neurons misfire - generating sudden, uncontrolled bursts of electrical activity. The normally orderly communication between neurons is disturbed, resulting in thoughts, feelings or movements becoming momentarily confused or uncontrolled.

Seizures can be subtle causing momentary lapses of consciousness, or they can be conspicuous causing sudden loss of body control.

Although seizures can be frightening, in most cases they stop without intervention and last only a few seconds.

Recovery after a seizure may take some time, but there are generally no ill effects. The person will gradually regain control and re-orient themselves to their surroundings.

Around 70% of people diagnosed with epilepsy can control their seizures through medication.[1]

[1] 1. Brodie M. J., Schachter S. C. Fast facts – epilepsy. Oxford: Health Press Limited, 1999.

Are Seizures always due to Epilepsy?

- No.
- Around 10% of the population will have a seizure at some time during their life that may be caused by diabetes, kinked blood vessels or other health conditions. Seizures are more common in children and the elderly.
- Only 3-4% of people who have a seizure will go on to have another and receive a diagnosis of epilepsy. [2]
- Only when you start experiencing recurring seizures could it be considered epilepsy, which after all is just a name given to seizures that are likely to recur.

[2]. Hauser, W.A., Annegers, J. F., & Rocca, W. A. (1996). Descriptive epidemiology of epilepsy: Contributions of population-based studies from Rochester, Minnesota. *Mayo Clinic Proceedings*, 71(6). 576-586.

Are all Seizures the Same?

There are two categories used to determine this:

1. Focal seizures start in one part of the brain and affect the part of the body controlled by that part of the brain.
2. Primary generalised seizures involve the whole brain and therefore affect the whole body.

However within these two categories are 46 different types of seizure that range from mild to severe.

The following three are the most common:

1. **Complex partial seizure** – can make a person look like they are in a trance. They may make funny sounds, fidget with their clothes, repeat their movements or wander around with no specific purpose. These seizures only last a few minutes, with some confusion afterwards that will soon pass.
2. **Absence Seizure** – can make a person look like they are daydreaming. They will suddenly stop what they are doing and stare for a few seconds before recovering. This may happen many times during a day and they won't know what happened or what went on around them for that time.
3. **Tonic-closure seizure** – can make a person's body become stiff, lose consciousness and jerk their limbs. This seizure usually only lasts a few minutes but when it is over the person may be confused and want to sleep.

Seizures Affect People Differently Depending upon:

- The part of the brain they start in
- The part of the brain they spread to
- How much of the brain is affected
- How long they last

How often do Seizures Happen?

Seizures are episodic and unpredictable. This means they can occur as frequently as every day, or just occasionally in a lifetime.

Medication is the most effective way to prevent or reduce the number of seizures you have.

Downloadable Resources

The following downloadable resources may be helpful. If you're unable to download the links please ask us for a copy to be sent by post. [Learning About Epilepsy](#):

- Booklet
- Audio Booklet
- Seizures:

First Aid Poster

All About Seizures - Understanding seizures and first aid responses.

Seizure Diary

Videos

Diagnosing Epilepsy - An easy to understand booklet answering common questions about epilepsy.