

Facts about epilepsy

What is epilepsy?

Epilepsy is a tendency to have recurring seizures that are unprovoked (have no obvious cause).

All seizures are caused by abnormal electrical activity somewhere in the brain. There are many types of seizures. This means epilepsy is a very broad term and seizures can look very different for each person living with epilepsy.

Diagnosing epilepsy can be difficult. Many people will have one seizure at some stage in their lives, but this does not mean they have epilepsy, because the seizure does not reoccur.

Some children with epilepsy may grow out of their epilepsy by the time they reach adulthood. For many others epilepsy is a lifelong condition.

Epilepsy has been mentioned in literature dating back to ancient times, seizures were wrongly attributed to spirits and insanity.

Scientific advances mean the causes of epilepsy are now better understood but some misunderstanding and stigma about epilepsy persists.

Who gets epilepsy?

One in 50 people will acquire epilepsy in their lifetime. One in 10 people will have a seizure in their lifetime.

Anyone of any age, race, background or intelligence level can be diagnosed with epilepsy. Diagnosis is often made in people aged under 5 and over 60 years of age as this is when the brain is developing and changing rapidly.

What causes epilepsy?

For about half of all people diagnosed with epilepsy no specific cause is identified although there is evidence to suggest the cause is either genetic or structural.

Often, if a cause is identified it is related to trauma to the brain from a number of conditions including:

- acquired brain injury
- loss of oxygen
- infections of the brain
- strokes, tumours or cysts
- cerebrovascular degeneration
- genetic causes. These may be familial or they may be caused by a new genetic abnormality that occurs during the earliest stage of foetal development.

How is epilepsy diagnosed?

It is extremely important to get a correct diagnosis and this may need several tests and may take considerable time. Questions which need to be answered to ensure a correct diagnosis include:

- Is it epilepsy or is it something else?
- If it is epilepsy, what sort of epilepsy is it?
- Where does it start in the brain?
- Is there any structural abnormality in the brain?

What is needed for correct diagnosis?

- a full clinical history and a good description of the seizure/s;
- a physical and neurological examination;

Investigations may include an Electroencephalogram (EEG), a Computerised Tomography (CT) scan or/ and Magnetic Resonance Imaging (MRI) brain scan.

How is epilepsy treated?

Regular epilepsy medications aim to control seizures with the least amount of side effects. There are numerous medications available. It can take time to get the correct medication regime.

The choice of medication will depend on a number of factors, including the type of seizure or syndrome. Good seizure control can be achieved in about 70% people.

Common seizure triggers include:

- lack of a good sleep hygiene
- extreme changes in temperature, particularly heat

- fever and illness
- stopping or changing medication
- changing from brand name to generic name medication or vice versa
- infections, viruses or allergies
- alcohol or other drugs including caffeine
- hormonal changes
- photosensitivity
- stress
- dehydration

Surgery

While medication is effective for many people, some seizure disorders are more severe and resistant to medication.

Increasingly, brain surgery is an option taken by people with uncontrolled seizures, often with good results. However, surgery is not suitable for all people living with epilepsy.

Dietary therapies

Diets including the Classical and Modified Ketogenic diets may assist in limiting seizure activity. These diets must be undertaken with specialist and dietitian involvement. See the Epilepsy Queensland factsheet *Diets and Epilepsy* for more information or call Epilepsy Queensland on (07) 3435 5000 or 1300 852 853 (outside Brisbane).

This fact sheet was reviewed by the services team at EQI, April 2020. To be reviewed March 2023

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