

What is epilepsy?

Epilepsy is a condition of the brain where there is a tendency to have recurrent seizures.

What is a seizure?

The brain is made up of millions of nerve cells called neurons. They generate electrical impulses and messages to produce thoughts, feelings and movement. A seizure occurs when the normal pattern of these impulses is disrupted, caused by the neurons rapidly firing all at once. This can cause changes in sensation, awareness and behaviour, or sometimes convulsions, muscle spasms or loss of consciousness, depending on where the seizure starts and spreads in the brain.

Seizures vary greatly and most seizures are over in less than two minutes.

Not all seizures are diagnosed as epilepsy

Can anyone develop epilepsy?

Yes. Epilepsy can affect anyone regardless of age, intelligence, gender, culture or background. It is a common condition of the brain which can affect approximately 3.5% of Australians in their lifetime.

What causes epilepsy?

Anything resulting in damage or scarring to the brain may lead to seizures and epilepsy. There are many causes for seizures and not everyone has a clear reason why they have epilepsy.

At least 50% of people with epilepsy have no known cause for their seizure disorder

Some known causes of epilepsy include:

- Head injury
- Stroke or brain haemorrhage
- Lack of oxygen to the brain for a prolonged period (e.g. birth trauma, cardiac arrest, drug overdose)
- Brain infections (e.g. meningitis, encephalitis or brain abscess)
- Brain abnormalities at birth
- Brain tumours
- Genetic factors
- Degenerative conditions affecting the brain (e.g. dementia)

Recognising seizures

Three of the most common types of seizures include:

1. Tonic clonic seizures
2. Focal seizures
3. Absence seizures

Seizure Types

Tonic clonic seizures are the most recognised seizure type and can be frightening to witness. They usually begin with:

- A sudden loss of consciousness, sometimes with a vocal sound
- If standing, the person will fall
- The body becomes stiff (tonic), followed by jerking of the muscles (clonic)
- Breathing may be shallow or briefly suspended which may cause the lips and face to be grey/blue
- Excess saliva may come of the person's mouth, with blood if they have bitten their tongue or the inside of their mouth
- There may be loss of bladder or bowel control so the person may wet or soil themselves.
- The seizure usually lasts 2 minutes or less
- It is often followed by a period of confusion, disorientation, agitation, headache, soreness and sleep

Focal seizures vary greatly, depending on where they start and spread within the brain and are frequently not recognised as seizures by onlookers. Many of these seizures may have features such as:

- A vacant stare, loss of expression or a vague, confused appearance
- Consciousness or awareness is impaired and the person may or may not respond
- If they do respond, it is often inappropriate
- Sometimes people have unusual and repetitive behaviour such as chewing, fidgeting, walking around or mumbling
- The seizure can last from approximately 30 seconds to 2 minutes
- After the seizure, the person is often confused and may not remember anything that happened just before or during the event

Absence seizures usually start in childhood (but can occur in adults) and are easily missed or misinterpreted as daydreaming or inattentiveness.

- The seizure starts suddenly with the person stopping their activity
- You will see staring, loss of facial expression and unresponsiveness
- Sometimes eye blinking or upward eye movements are seen
- The seizure can last from two to 20 seconds
- The person usually recovers immediately and resumes their previous activity, with no memory of what happened during the seizure
- The seizures occur many times a day which may disrupt learning

Seizure Triggers

A seizure trigger, are circumstances that are likely to "set off" a seizure

Avoiding seizure triggers can reduce the risk of seizures in people with epilepsy.



Some reported triggers for seizures include:

- Lack of sleep
- Missed medication
- Physical or emotional stress (fatigue, anxiety or emotional upsets)
- Hormonal fluctuations
- Other medications
- Illness or fever
- Vomiting, diarrhoea and constipation
- Alcohol or illicit drug use or abuse
- Some rapid flashing lights or geometrical pattern changes (photosensitivity)
- Hot weather or becoming over heated
- Boredom or over excitement

It may be worth keeping a seizure diary. This may highlight patterns to your seizures, and identify possible triggers.

A promising outlook

Coming to terms with the diagnosis of epilepsy may be difficult, require a period of adjustment and some lifestyle changes. Seizures can be disruptive and impact a person's life, but many people with epilepsy achieve seizure control, with regular medications and a sensible lifestyle. Three in four people become seizure free.

Epilepsy does not need to limit expectations or achievements.

Reference:

<https://www.epilepsy.org.au/facts-and-statistics-2/> Accessed May 2020

FIRST AID FOR SEIZURES

TONIC CLONIC SEIZURE

Seizures where the body stiffens (tonic phase) followed by general muscle jerking (clonic phase).



DO

- ✓ Stay with the person
- ✓ Time seizure
- ✓ Keep them safe: protect from injury especially the head
- ✓ Roll onto side after jerking stops
(immediately if food/fluid/vomit in mouth)
- ✓ Observe and monitor breathing
- ✓ Gently reassure until recovered



DO NOT

- ✗ Put anything in the person's mouth
- ✗ Restrain the person
- ✗ Move person unless in danger

FOCAL SEIZURE

Non-convulsive seizures with possible outward signs of confusion, inappropriate responses or behaviour.

- Stay with the person
- Time seizure
- Gently guide away from harm
- Reassure until recovered
- DO NOT restrain the person unless in danger

CALL 000 FOR AN AMBULANCE IF:

- You are in any doubt
- Injury has occurred
- There is food/fluid/vomit in mouth
- Seizure occurs in water
- Person has breathing difficulties after jerking stops
- Another seizure quickly follows
- Seizure lasts longer than 5 mins
- The person is non-responsive for more than 5 mins after the seizure ends

