Seizures

## What is a seizure?

A seizure (also called a ‘fit’ or convulsion) occurs when there is a temporary disturbance in the electrical activity of the brain. There are many different types of seizures. They vary from absence seizures that look as if a person is staring into space to more obvious convulsions that involve the entire body. Seizures usually result in loss or reduced consciousness. Some people only have one seizure in their lifetime, while others may have many. Most seizures last less than five minutes.

Seizures are not always a sign of epilepsy (a medical condition that causes seizures). They may be caused by a brain injury or infection, fever, drugs or excessive alcohol use. The cause of a seizure may not always be obvious.

Seizures are often very frightening for the observer, especially if they have never seen one before. However, brain damage resulting from a seizure is rare.

## Types of seizure

There are many different types of seizures. Some of the most common generalised (affecting both sides of the brain) seizures are:

* Tonic clonic (the most common type) – The person may cry out before losing awareness (consciousness). They may fall to the ground and may injure themselves as a result. Their entire body stiffens and starts shaking or jerking violently. Their eyes may roll back (so you can only see the white part) and they may turn blue around the lips or in the face. Saliva or fluid may come out of their mouth (this could be red if they have bitten their tongue). They may be incontinent of urine (wet their pants). They are confused and drowsy (groggy) once the fitting stops. They may feel dazed or act strangely. They may be unaware of their actions.
* Absence – The person may have a fixed gaze as if a person is staring into space or their eyelids may ‘flicker’. There is no other obvious jerking. They do not respond when you talk to them.
* Myoclonic – Twitching, jerking or ‘tremor’ is seen in one or more limbs. The person may be awake.

## Treatment

### First aid

Do:

* protect the person from injury – remove harmful objects from nearby
* cushion their head
* aid breathing by placing them in the recovery position (on their side) once the seizure has finished
* stay with the person until recovery is complete
* call an ambulance (dial triple zero (000)) if any of the features listed on the next page are present or you are otherwise worried about the person.

Do not:

* restrain the person’s movements
* put anything in the person’s mouth (including your fingers)
* try to move them unless they are in danger
* give them anything to eat or drink until they are fully recovered.

Call triple zero (000) for an ambulance if:

* the person is unconscious for more than 10 minutes
* the seizure continues for more than five minutes
* the person is having repeated seizures or having their first seizure
* the person is injured during the seizure
* you believe the person needs urgent medical attention.

## Emergency care

In the emergency department or urgent care centre, the person will be closely monitored and any injuries they may have sustained will be treated. Doctors will rule out important causes of seizures requiring urgent treatment such as brain trauma and brain infections.

If the seizure has not stopped or recurs, a group of medications called benzodiazepines may be used to stop it (such as midazolam or clonazepam). This may cause drowsiness. Additional drugs or breathing support are rarely needed.

Anti-seizure (antiepileptic) medication is usually not required after a single seizure.

If antiepileptic medication is necessary, it may be given in tablet form or intravenously (into a vein) via a drip.

The person may have some tests including:

* an ECG (heart tracing)
* blood tests, including to test their blood sugar level
* a CT (computerised tomography) – a specialised scan of the brain (sometimes called a CAT scan).

Once the person has recovered fully and if no condition requiring urgent treatment is found, they will usually be sent home on the same day, with follow-up arranged in a specialist clinic if this was their first seizure or with their usual doctor if this is a chronic condition.

If the seizure is long or recurrent, recovery is slow or there is concern about its cause, a period of observation and treatment in hospital will be needed. This is uncommon.

## Advice on discharge

Depending on the circumstances of the initial seizure, there may be a risk of future seizures.

The person must not drive until cleared to do so by their doctor. This is to protect both the person who had the seizure and other road users. The period for which the person must not drive is variable and depends on further medical assessment.

Once home, the person should consider common sense precautions in case of a further seizure. They should avoid working at or climbing to heights, using some power tools or other dangerous equipment and bathing or swimming (especially if alone). These can be discussed further with their local doctor or healthcare professional or at their follow-up appointment.

## Follow-up

Follow-up after a seizure is important so that the best treatment to prevent it happening again can be given. This may be with a local doctor or via referral to a specialist doctor (neurologist) or to a specialist seizure clinic.

Lifestyle and driving advice or restrictions can be discussed further at this appointment.

Further tests may be ordered at this appointment including:

* an EEG (electroencephalogram) – this looks at the brain waves and electrical activity
* an MRI (magnetic resonance imaging) scan –another specialised scan of the brain.

Seeking help

In a medical emergency call an ambulance – dial triple zero (000).

For other medical problems see your local doctor or healthcare professional.

For health advice from a registered nurse you can call NURSE-ON-CALL 24 hours a day on 1300 60 60 24 for the cost of a local call from anywhere in Victoria.\*

NURSE-ON-CALL provides access to interpreting services for callers not confident with English.

\* Calls from mobiles may be charged at a higher rate.

## Want to know more?

* Ask your local doctor or healthcare professional.
* Visit the Better Health Channel at [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au).

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