

# EPILEPSY AND SEIZURES



**World Health  
Organization**

REGIONAL OFFICE FOR THE **Eastern Mediterranean**

## What is a seizure?

Seizures are a result of excessive electrical discharges in a group of brain cells. They can vary from the briefest lapses of attention or muscle jerks to severe and prolonged convulsions, and they can vary in frequency from less than one per year to several per day.

A single seizure does not signify epilepsy; as many as 10% of people worldwide have one seizure during their lifetime.

There are two types of seizure, convulsive and non-convulsive.

- **Non-convulsive seizures** may include changes in awareness, behaviour, emotions or senses (such as taste, smell, vision or hearing). These symptoms can be similar to some mental illnesses and so may be confused with them (for more information, see WHO's factsheet on psychosis and schizophrenia, which can be downloaded free of charge from the link at the end of this leaflet).
- **Convulsive seizures** feature sudden muscle contraction, causing the person to fall and lie rigidly, followed by the muscles alternating between relaxation and rigidity, with or without a loss of bowel or bladder control. Convulsive seizures are associated with greater stigma and higher rates of illness and death than non-convulsive seizures.

## What is epilepsy?

Epilepsy is a common chronic condition characterized by recurrent (at least two) unprovoked seizures which are not induced by a clear cause such as fever, stress or lack of sleep.

Epilepsy has been recognized in most cultures for hundreds of years, but has often been surrounded by misunderstanding, discrimination and social stigma. This stigma continues in many countries today and can reduce the quality of life of people suffering from the disorder and their families.

Nearly four fifths of people with epilepsy live in low- and middle-income countries, and most of them do not get the treatment they need.

## What causes epilepsy?

Epilepsy is not contagious.

The most common type of epilepsy, which affects six out of 10 people with the disorder, is called idiopathic epilepsy and has no identifiable cause.

Epilepsy with a known cause is called secondary epilepsy, or symptomatic epilepsy. Causes of secondary epilepsy include:

- genetics – if a close family member has epilepsy, there is a higher risk that you will have it
- a history of birth trauma, brain infections (neurocysticercosis, tuberculosis, HIV, cerebral malaria, Zika virus etc), severe head injury, stroke or brain tumor or malformation in development of the brain.

## Common signs and symptoms of epilepsy

Seizures can happen in different parts of the brain. Depending on which part is affected, people with epilepsy will have different symptoms. In most people with epilepsy the same type of seizure occurs each time, so the symptoms will be similar in every episode of seizure.

The symptoms typically pass in a few seconds or minutes.

Seizures can occur when someone is awake or asleep.

People with seizures tend to have more physical problems (such as fractures and bruising from injuries related to seizures), as well as higher rates of psychological conditions, including anxiety and depression. The risk of premature death in people with epilepsy is up to three times higher than among the general population.

Symptoms of epilepsy may include:

- uncontrollable jerking movements of the arms and legs (a fit)
- loss of consciousness or awareness
- tongue biting, urinary incontinence and temporary confusion following the seizure episode
- a spell of staring
- mental symptoms such as fear and anxiety
- strange sensations – such as a “rising” feeling in the stomach, unusual smells or tastes, and a tingling feeling in your arms or legs.

## When to seek help

Seek medical help if you think you may have had a seizure for the first time. If you have had seizures before or have been diagnosed with epilepsy, you need to ask for help if:

- the seizure lasts more than five minutes;
- you have a series of seizures within a short period;
- you have seizures associated with pregnancy, high blood pressure, diabetes and fever; or
- you suffer injuries during the seizure.

## How can you help someone who is having a seizure?

Call for an ambulance if someone:

- is having a seizure for the first time;
- has a seizure that lasts more than five minutes;
- has lots of seizures in a row;
- has breathing problems and stays unconscious after the seizure stops; or
- has seriously injured themselves.

There are things you can do to keep someone who is having a seizure safe:

- Roll the person over onto their side. This will prevent them from choking on vomit or saliva.
- Cushion their head.
- Loosen their collar so that they can breathe freely.

- Take steps to keep their airway clear: it may be necessary to grip their jaw gently and tilt their head back slightly to open the airway more thoroughly.
- Do **not** attempt to restrain the person unless failing to do so could result in obvious bodily harm (e.g. a convulsion that occurs at the top of a stairway or the edge of a pool).
- Do **not** put anything into their mouth – no medicines, no solid objects, no water. Despite what you may have seen on television, it is a myth that an epileptic can swallow their tongue, but they could choke on foreign objects.
- Remove any sharp or solid objects that the person may come into contact with.
- Time the seizure. Once it has ended, take notes. How long did it last? What were the symptoms?
- Your observations can help medical personnel later.
- Stay by the person’s side throughout the seizure.
- Stay calm – it will probably be over quickly.
- Do **not** shake the person or shout. This will not help.

## Treating epilepsy

Epilepsy can be treated easily and inexpensively with daily medication.

Up to 70% of children and adults with epilepsy can be successfully treated (i.e. their seizures completely controlled) with anti-epileptic drugs (AEDs).

After 2 years of successful treatment and being seizure-free, drugs can be withdrawn in about 70% of children and 60% of adults without subsequent relapse.

In rare cases, if medicines do not control seizures, surgery is also an option. The surgeon will remove a small part of the person’s brain in the area where their seizures originate.

If neither medicines nor surgery are suitable, a procedure may be recommended to put a small electrical device inside the body that can help control seizures.

You may have heard of specific diets for controlling seizures, particularly for children. Any restriction in diet must be recommended by the doctor and followed under supervision, otherwise it could be harmful.

## How can you help yourself ?

- Take all your medications as prescribed by your doctor – never stop them by yourself.
- Anti-epileptic drugs can have side effects. If side effects do not wear off over time or you cannot tolerate them, contact your doctor. Do not make any change in your medication by yourself.
- In many people seizures have a trigger such as lack of sleep or stress. Try to identify any trigger for you and avoid it.

- Be careful about taking any over-the-counter or herbal medicines. They may affect the level of the medicine in your blood and make it less effective. No herbal or complementary medicine is known to be effective in controlling seizures.
- Avoid drugs and alcohol.
- Stay active, exercise and continue your previous activities as far as you can, but with added safety measures. Do not tire yourself out or put too much stress on yourself.

*This is one of a series of factsheets produced by the World Health Organization (WHO) to give the general public more information about mental disorders and how they can be treated. You can download all the factsheets free of charge from the WHO website at: [www.emro.who.int/mnh](http://www.emro.who.int/mnh).*