

EPILEPSY

What is Epilepsy?

Epilepsy is a brain disorder in which brain activity becomes abnormal, causing seizures or periods of unusual behaviour, sensations and sometimes loss of awareness. The word epilepsy means "a tendency to have recurrent seizures". Epilepsy is characterised by recurrent unprovoked seizures and is a complex neurological condition.

A seizure is a sudden surge of electrical activity in the brain that usually affects how a person feels or acts for a short time. Some seizures can hardly be noticed such as a blank stare for a few minutes or seconds, while other seizures may present as severe convulsions.

Seizures caused by epilepsy may be a partial seizure (also known as a focal seizure) which is limited to only one part of the brain. They may also be generalised seizures, which involve the entire brain.

Epilepsy is usually diagnosed after a person has had at least two seizures that were not caused by some known medical condition like alcohol withdrawal or extremely low blood sugar.

What causes it?

The seizures in epilepsy may be related to a brain damage brought on by injury, tumour or a family tendency, but often the cause is completely unknown. Anyone can develop epilepsy. Epilepsy affects both males and females of all ages.

What are the symptoms?

A seizure is a sudden alteration of behaviour due to a temporary change in the electrical functioning of the brain. Seizure symptoms can vary widely. Some people may stare blankly for a few seconds during a seizure while others may repeatedly twitch their arms or legs. People with epilepsy may experience certain symptoms before, during and after a seizure. Seizures can take on many different forms and may affect different people in different ways. It does not mean that every person with seizures will experience every symptom described below.

Seizures have a beginning, middle, and end

When a person is aware of the "beginning", it may be thought of as a warning or aura. On the other hand, a person may not be aware of the "beginning" and therefore have no warning. Sometimes, the warning or aura is not followed by any other symptoms. It may be considered a simple partial seizure by the doctor.

Early seizure symptoms (warnings)

Sensory/Thought:

- Deja vu
- Smell
- Sound
- Taste
- Visual loss or blurring
- Racing thoughts
- Stomach feelings
- Strange feelings
- Tingling feeling

Emotional:

- Fear/Panic
- Pleasant feeling

Physical:

- Dizziness
- Headache
- Lightheadedness
- Nausea
- Numbness

No warning:

- Sometimes seizures come with no warning

The middle of the seizure may take several different forms:

- For people who have warnings, the aura may simply continue or it may turn into a complex partial seizure or a convulsion
- For people who do not have a warning, the seizure may continue as a complex partial seizure or it may evolve into a convulsion

Seizure Symptoms:

- Black out
- Confusion
- Electric shock feeling
- Loss of consciousness
- Smell
- Out of body experience
- Visual loss or burning
- Fear/panic
- Convulsions/shaking/stiffening
- Difficulty talking
- Foot stomping
- Eyelid fluttering/rolling of eyes/staring
- Falling down
- Hand waving
- Incontinence
- Lip smacking
- Sweating
- Teeth clenching
- Tongue biting
- Tremors
- Breathing difficulty

The end to a seizure represents a change from the seizure back to your normal state. This is the recovery period for the brain and it may last for a few seconds to minutes or hours. If a person had a complex partial seizure or a convulsion, their level of awareness gradually improves, much like a person waking up from anesthesia after an operation.

After seizure symptoms:

- Memory loss
- Writing difficulty
- Confusion
- Depression
- Fear
- Frustration
- Shame/embarrassment
- Bruising
- Difficulty talking
- Sleeping
- Exhaustion
- Nausea
- Thirst
- Weakness

How is it diagnosed?

Your doctor will diagnose epilepsy through a thorough physical examination and medical history. He will find out information about the seizures- what symptoms you presented, what happened just before they began etc.

Your doctor may also perform an EEG (electroencephalograph). This is a machine that records brain waves picked up by tiny wires taped to the head. Electric signals from the brain cells are recorded as wavy lines by the machine. These brain waves show special patterns which show the doctor whether you have epilepsy or not.

How can Epilepsy Disease affect my health?

Epilepsy is one of the most common brain disorders. Each epileptic person may experience different warning signs, if any, and each epileptic may have a specific type of seizure, the severity of the seizures may vary, as well as the frequency of the seizures. Therefore each epileptic will need to be managed individually. There is no known cure for epilepsy but for most epileptics the seizures can be controlled by medication.

It is extremely important to take your medication exactly as prescribed by your doctor. Do not stop your medication as this will lead to the loss of control of your epilepsy and you will experience more frequent seizures. It is important to remember to take your medicine every day exactly as your doctor has prescribed it. If you have any concerns about your medication or their side effects, discuss these with your doctor.

Learn as much as you can about epilepsy and involve your family, loved one or your co-workers in your life as well. They all need to be aware of your condition and need to be informed how to manage a seizure should you have a seizure. Wear a Medic-alert bracelet so that other people can assist you to call your doctor if you have a seizure and are unable to talk.

Learn to identify and recognise your own warning signs of an impending seizure. Try to place yourself in a position to avoid injury to yourself when the seizure starts.

Treatment

- Lifestyle modification should be applied. A healthy lifestyle should be adopted with careful attention to avoiding or controlling factors that could lower the seizure threshold
- Medication: The type of seizure and the specific symptoms play a role in selecting the medicines to treat epilepsy. Anti-epileptic medicines are grouped according to how they work:
 - a. Anti-epileptics that primarily influence sodium channels e.g. Carbamazepine, Oxcarbazepine, Phenytoin, Lamotrigine, Topiramate and Valproate
 - b. Anti-epileptics that mainly enhance GABA e.g. Phenobarbitone, Benzodiazepine and Vigabatrin
 - c. Glutamate modulators e.g. Topiramate and Lamotrigine
 - d. T-calcium channel blocker e.g. Ethosuximide and Valproate
- The newer anti-epileptics often have more than one mode of action
- Drug therapy is the mainstay of treatment for epilepsy and most epileptic people require drug therapy life-long

Your role in managing this condition

- Safety is important. Try to prevent injury to yourself should you have a seizure
- Fires and stoves: Don't come too close to open fires
- Bathrooms: Leave the door unlocked. Keep bath water levels as low as possible. Ensure that someone is around to assist you if you have a seizure while bathing
- Sports: Ensure that you have company when participating in sports or recreational activities such as swimming. Wear a helmet if you participate in sports such as horse riding etc
- Identity discs: Wear a Medic Alert bracelet at all times. Ensure that you have your doctor's contact details with you
- Take your medication regularly as prescribed by your doctor. Do not skip or miss doses. Do not stop your medication without discussing it with your doctor
- A seizure that causes loss of awareness or control can be dangerous if you are driving a car or operating heavy machinery or equipment
- Rest well
- Avoid triggers such as flashing lights or video games etc
- Limit your alcohol consumption
- Be careful about what other medicines you take- especially medicines such as anti-histamines or medicines for flu and colds that may make you drowsy

Disclaimer

The reader should always consult a doctor if they believe they may be suffering from this medical condition. The information contained herein is intended to assist understanding and should not take the place of your doctor's advice or instructions. Whilst every effort has been made to ensure the accuracy of the information contained herein, Universal Care does not accept responsibility for any errors or omissions or their consequences, and shall not be liable for any damages suffered arising out of the use of this information.

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