## **Epilepsy Specialist**

Dr. Janki Lavingia

## Pediatric Neurology

Dr. Harsh Patel MD, DM

# Neurology

Dr. Ajit Sowani MD, DM

Dr. Arvind Sharma MD. DM Clinical Fellowship in Stroke (Canada)

Dr. Nikhilkumar Dave MD, DNB

Dr. Aditya Murgai MD. DM Clinical Fellowship in Movement Disorder (Canada)

Dr. Dinesh Saini MD. DM



Zydus Hospitals was established with a vision to be the leading provider in delivering healthcare services to the community and is now the most preferred destination for comprehensive medical care and treatment.

On a mission to extend world-class healthcare solutions to the community through advances in medical technology, medical research and best management practices, Zydus Hospitals has all major medical specialties, investigative and diagnostics facilities, rehabilitation and physical therapy care right under one roof.

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#### Zydus Hospitals & Healthcare Research Pvt. Ltd.

Nr. Sola Bridge, S.G. Highway, Thaltej, Ahmedabad-380 054 Gujarat, India. E: infoahd@zydushospitals.com | www.zydushospitals.com











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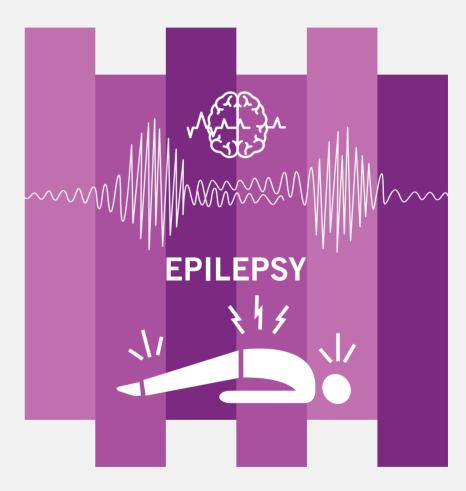
















# What is epilepsy?

Epilepsy is a central nervous system (neurological) disorder in which brain's activity becomes abnormal, causing seizures or periods of unusual behaviour, sensations, and sometimes loss of awareness.

Anyone can develop epilepsy including neonatal. Epilepsy affects both males and females of all races, ethnic backgrounds and ages.

Seizure symptoms can vary widely. Some people with epilepsy simply stare blankly for a few seconds during a seizure, while others repeatedly twitch their arms or legs. Not every seizure patient has epilepsy; it comprises of two or more unprovoked seizures.

Treatment with medications or sometimes surgery can control seizures for majority of people with epilepsy. Some people require lifelong treatment to control seizures, but for others, the seizures eventually go away. Some children with epilepsy may outgrow the condition with age.

## What are the symptoms of epilepsy?

As epilepsy is caused by abnormal activity in the brain, seizures can affect any process your brain coordinates. Seizure signs and symptoms may include:

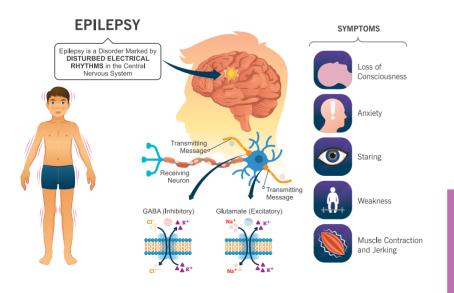
- Temporary confusion
- · A staring spell
- Uncontrollable jerking movements of the arms and legs
- Loss of consciousness or awareness
- Psychic symptoms such as fear, anxiety or deja vu

Symptoms vary depending on the type of seizure. In most cases, a person with epilepsy will tend to have the same type of seizure each time, so the symptoms will be similar from episode to episode.

Doctors generally classify seizures as either focal or generalised, based on how the abnormal brain activity begins.

#### Services offered:

- Dedicated epilepsy clinic for adult and pediatric epilepsy patients
- Patient centered multi-disciplinary approach (Epileptologists, Pediatric Neurosurgeon,





EEG technician, Psychologist, Dietitian, Nurses)

- · Counseling and education
- Advanced epilepsy diagnostics
- 256 slice CT scanner for CT brain
- 3T MRI scanner for epilepsy brain protocol MRI
- PET scanner for PET brain
- Video EEG for routine as well long-term monitoring
- Epilepsy monitoring unit specialised unit dedicated to diagnosing, classifying and treating patients with seizures and epilepsy.

#### **Treatment**

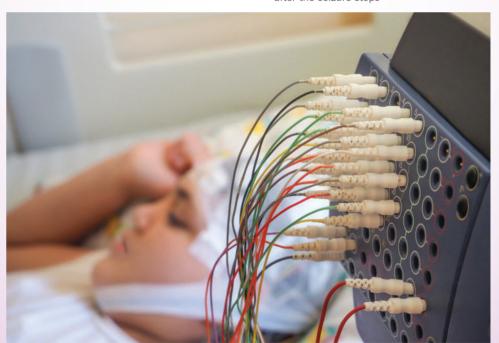
Treatment of epilepsy is an individualised process and varied options can be offered, such as:

- Anti-epileptic drugs (our team has experience using over 20 different antiseizure medications and in managing the potential side effects)
- Dietary treatments such as ketogenic diet or modified Atkins diet
- For patients with seizures that do not respond to meds or diet, epilepsy surgery may be an option
- Implantable devices such as VNS (vagal nerve stimulator), DBS (deep brain stimulator) and RNS (Responsive neurostimulator) also offer people with epilepsy a significant chance of improved seizure control

#### When to seek immediate medical care?

Seek immediate medical help if any of the following occurs:

- A second seizure follows immediately
- Breathing or consciousness doesn't return after the seizure stops





- You've injured yourself during the seizure
- If you experience a seizure for the first time, seek medical advice.

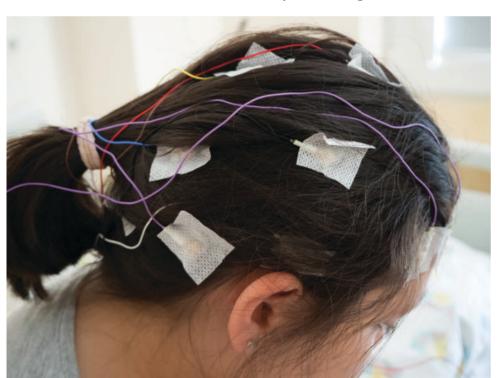
# When to see an epilepsy specialist?

- If you experience a seizure for the first time
- If you continue to have seizures despite trying seizure medicines, i.e. DRE (Drug resistant epilepsy)
- If you are experiencing any side effects from seizure medicines
- If you are planning pregnancy or are pregnant and having seizures

#### What are the causes?

Epilepsy has no identifiable cause in about half the people with the condition. In the other half, the condition may be traced to various factors, including:

• **Genetic influence:** Some types of epilepsy, which are categorised by the type of seizure you experience or the part of the brain that is affected, run in families. In these cases, it's likely that there's a genetic influence.



Researchers have linked some types of epilepsy to specific genes, but for most people, genes are only part of the cause of epilepsy. Certain genes may make a person more sensitive to environmental conditions that trigger seizures.

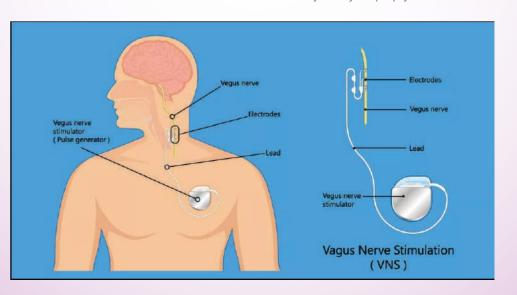
- **Head trauma:** Head trauma as a result of a car accident or other traumatic injury can cause epilepsy.
- Brain conditions: Brain conditions that cause damage to the brain, such as brain tumors or strokes, can cause epilepsy. Stroke is a leading cause of epilepsy in adults older than age 35.
- **Infectious diseases:** Infectious diseases, such as meningitis, AIDS and viral encephalitis, can cause epilepsy.
- **Prenatal injury:** Before birth, babies are sensitive to brain damage that could be caused by several factors, such as an infection in the mother, poor nutrition or oxygen and glucose deficiency. This brain damage can result in epilepsy or cerebral palsy.
- **Developmental disorders:** Epilepsy can sometimes be associated with developmental disorders, such as autism and neurofibromatosis

# What are the factors that may increase risk of epilepsy?

• Age: The onset of epilepsy is most common

in children and older adults, but the condition can occur at any age.

- Family history: If you have a family history of epilepsy, you may be at an increased risk of developing a seizure disorder.
- **Head injuries:** Head injuries are responsible for some cases of epilepsy. You can reduce your risk by wearing a seat belt while riding in a car and by wearing a helmet while bicycling, skiing, riding a motorcycle or engaging in other activities with a high risk of head injury.
- Stroke and other vascular diseases: Stroke and other blood vessel (vascular) diseases can lead to brain damage that may trigger epilepsy. You can take a number of steps to reduce your risk of these diseases, including limiting your intake of alcohol and avoiding cigarettes, eating a healthy diet, and exercising regularly.
- **Dementia:** Dementia can increase the risk of epilepsy in older adults.
- Brain infections: Infections such as meningitis, which causes inflammation in your brain or spinal cord, can increase your risk.
- Seizures in childhood: High fevers in childhood can sometimes be associated with seizures. Children who have seizures due to high fevers generally won't develop epilepsy. The risk of epilepsy increases if a child has a long seizure, another nervous system condition or a family history of epilepsy.



# **Epilepsy First Aid**



Do



Remain calm



Keep the person safe from harmful objects



Look at a watch and time the seizure



Make the person as comfortable as possible



When seizure ends turn the person onto their side



If seizure lasts for more than 5 minutes, call 911



Stay with them until they are awake

# Do Not



Do not panic



Do not restrain



Do not put anything in their mouth

# What are the complications associated with seizure?

Having a seizure at certain times can lead to circumstances that are dangerous to yourself or others.

- **Falling:** If you fall during a seizure, you can injure your head or break a bone.
- **Drowning:** If you have epilepsy, you're 15 to 19 times more likely to drown while

swimming or bathing than the rest of the population because of the possibility of having a seizure while in the water.

• Car accidents: A seizure that causes either loss of awareness or control can be dangerous if you're driving a car or operating other equipment.

Many states have driver's license restrictions related to a driver's ability to control seizures and impose a minimum amount of time that a

driver be seizure-free, ranging from months to vears, before being allowed to drive.

• **Pregnancy complications:** Seizures during pregnancy pose dangers to both mother and baby, and certain anti-epileptic medications increase the risk of birth defects. If you have epilepsy and you're considering becoming pregnant, talk to your doctor as you plan your pregnancy.

Most women with epilepsy can become pregnant and have healthy babies. You'll need to be carefully monitored throughout pregnancy, and medications may need to be adjusted. It's very important that you work with your doctor to plan your pregnancy.

- Emotional health issues: People with epilepsy are more likely to have psychological problems, especially depression, anxiety and suicidal thoughts and behaviors. Problems may be a result of difficulties dealing with the condition itself as well as medication side effects.
- **Cognitive issues:** People with epilepsy also commonly suffer from memory problems, and that can again lead to more psychological issues such as frustration, depression, etc.

# Other life-threatening complications of epilepsy are uncommon, but may happen, such as:

• Status epilepticus: This condition occurs if you're in a state of continuous seizure activity lasting more than five minutes or if you have frequent recurrent seizures without regaining full consciousness in between them. People with status epilepticus have an increased risk of permanent brain damage and death.

For patients with frequent and/or prolonged seizures, it is very important to keep their rescue medication such as midazolam nasal spray (prescribed by their Neurologist) very handy.

• Sudden unexpected death in epilepsy (SUDEP): People with epilepsy also have a small risk of sudden unexpected death.

People with frequent tonic-clonic seizures or people whose seizures aren't controlled by medications are known to be at higher risk of SUDEP, and may be as high as 0.5 – 1% per year.

