



# Epilepsy

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# What is Epilepsy ?

Epilepsy is a disease that cause frequent seizures.

It's found that Epilepsy is a chronic disorder, which can lead to unprovoked seizures. If a person has two unprovoked seizures, they are then diagnosed with epilepsy. These seizures can be related to brain injury or possibly family tendencies.

Seizures are episodes where the brain's electrical activity glitches. These episodes can come in the form of blank stares, loss of consciousness, or jerking of the body.

Getting Diagnosed :

- Doctors run a neurological exam
- Doctors can also give blood tests

# What causes Epilepsy ?

**Epilepsy can be caused by:**

- Head trauma
- Genetic influence
- Brain Conditions
- Infectious diseases
- Prenatal
- Developmental disorders

# Internal Causes- RaVaana

Epilepsy may stem from changes in the brain's development, wiring, or chemicals. The disease disrupts the activity of brain cells called neurons, which normally transmit messages in the form of electrical impulses.

The CNS causes Epilepsy when it:

- Misfires electrical signals
- Malfunctions for a period of time

# Systems Affected

## Central Nervous System

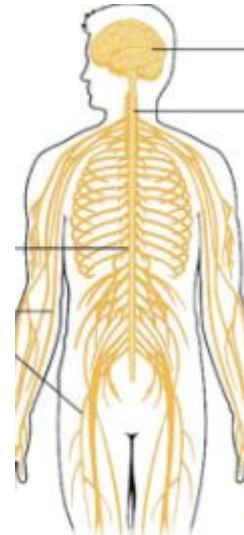
- Brain
- Spinal Cord



\*The nervous system is responsible for the control of the body and communication signals throughout the body parts.

## Peripheral Nervous System

- Sensory Neurons
- Motor Neurons



# Specific Effects

## Central Nervous System

### Affects Sensory Perception

- Blurred vision
- Odd smells
- Taste
- Sensations
- Loss of consciousness
- Anxiety

## Reproductive System

- Low sperm count (men)
- Sexual libido
- Pregnancy
- Menstrual cycle regularity

## Integumentary System

- Bruising
- Lacerations

# Homeostasis In Affect

Electrical disruptions can cause a range of symptoms. Some people stare off into space, some make jerky movements, while others lose consciousness.

Electrical activity running through nerve cells helps your brain tell your body what to do, but if abnormal signals interrupt the brains normal functioning you can have a seizure.

# How to treat a Seizure in Action!

## Precautions of a Seizure

- Stay calm.
- Look around - is the person in a dangerous place? If not, don't move them. Move objects like furniture away from them.
- Note the time the seizure starts.
- Stay with them. If they don't collapse but seem blank or confused, gently guide them away from any danger. Speak quietly and calmly.
- Cushion their head with something soft if they have collapsed to the ground.
- Don't hold them down.
- Don't put anything in their mouth.
- Check the time again. If a seizure doesn't stop after 5 minutes, call for an ambulance (dial 999).
- After the seizure has stopped, gently put them into the recovery position and check that their breathing is returning to normal. Gently check their mouth to see that nothing is blocking their airway such as food or false teeth. If their breathing sounds difficult after the seizure has stopped, call for an ambulance.
- Stay with them until they are fully recovered.

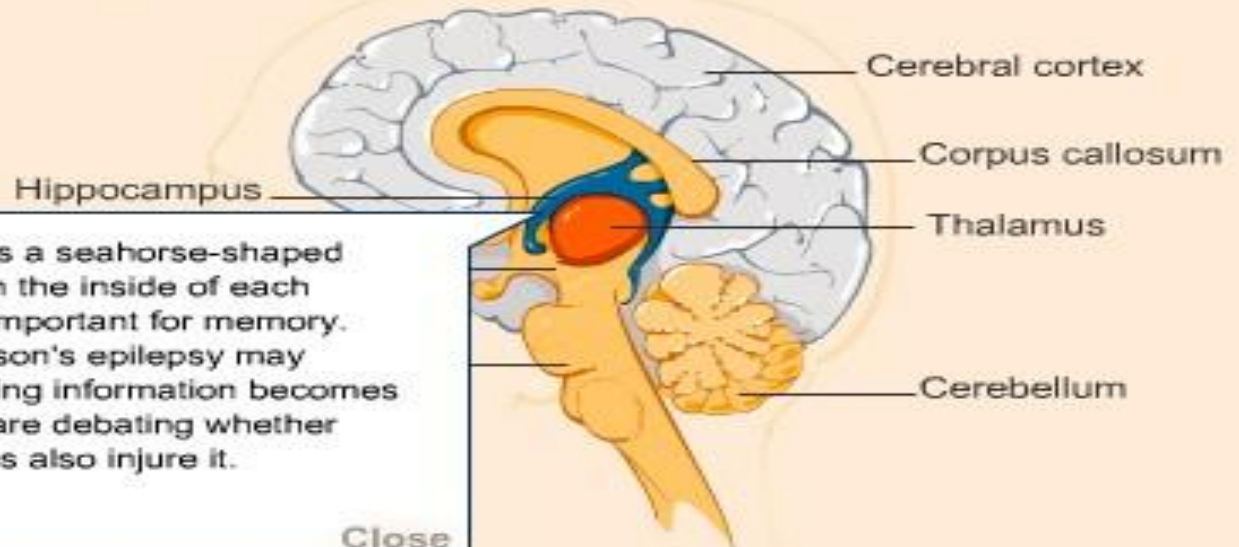


# Long Term Treatment

- Prescribed Medicine (anti- seizure medicine)
  - After a certain amount of time on the medicine you can get off of it and your epilepsy will be cured
  - Medicine is based on age, frequency of your seizures, and other things
- Surgery
  - Performed when the seizure comes from a small region in the brain
  - Also performed when that region of the brain doesn't affect any motor skills, vision, hearing, or speech
  - If a patient doesn't respond to medication then it is a possibility to have surgery. Some surgeries are Multiple Subpial Transection which helps control brain seizures. Another surgery is Temporal Lobe Resection which removes the seizure focus in the temporal lobe of the brain.
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# Parts of the Brain Affected

## The Anatomy of the Brain



The hippocampus is a seahorse-shaped structure located on the inside of each temporal lobe. It's important for memory. The cause of a person's epilepsy may damage it, so locating information becomes difficult. Scientists are debating whether seizures themselves also injure it.

Close

# Organizations & Professions



- 65 Million Invested in Epilepsy Research
- 508,534 Training in Seizure recognition and first aid
- 108,522 assisted through 24/7 helpline

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