

EPILEPSY

FACTSHEET

SO WHAT IS EPILEPSY?

Epilepsy refers to a spectrum of brain disorders that disrupts the brain normal electrical activity resulting in a seizure. **Seizures and epilepsy are not the same**, *seizures* are caused by epilepsy and vary in type, while epilepsy is an actual malfunction of the brain's electrical system controlled by cells in the brain called neurons. Seizures can be the result of anything that caused these cells not to operate properly. These causes could range from illness like a high fever to actual damage to the brain. On the other hand, epilepsy can occur due to the following:



- ✓ Improper wiring of the brain's electrical system
- ✓ An imbalance in the chemicals that control brain activity, called neurotransmitters
- ✓ Disruption or changes in brain cells or channels, like those that occur in people with Alzheimer's
- ✓ A combination of these brain-related problems

How epilepsy appears and effects a person varies based on the cause and type of seizures a person may have. Regardless of the cause or type there are three stages people go through when having a seizure. The signs and symptoms associated with seizures occurs in phases and a beginning, middle, and end stage.

- The beginning stage of seizures is known as the **Prodrome** phase. Symptoms during this stage are vague and do not occur in every person. When they occur they act as a warning sign of pending or possible seizure. Symptoms during this phase may involve having unusual feelings, sensations or changes in your behavior that can happen days or minutes before an actual seizure. Most epileptic seizures can occur without warning.
- The middle stage is referred to as the **Ictal** phase and this is the stage when physical or observable activities of the seizure begin until they end. This stage of the seizure can vary in duration lasting anywhere from a few seconds to several minutes. Keep in mind that any seizure that last more than 5 minutes should be considered a medical emergency! Common symptoms seen in the Ictal phase are:
 - ✓ Change in level of consciousness (passing out)

- ✓ Changes in ability to speak and/or hear
- ✓ Trouble swallowing
- ✓ Twitching or jerking movements of part or all of the body
- ✓ Sweaty or clammy skins
- ✓ Biting and clenching your teeth

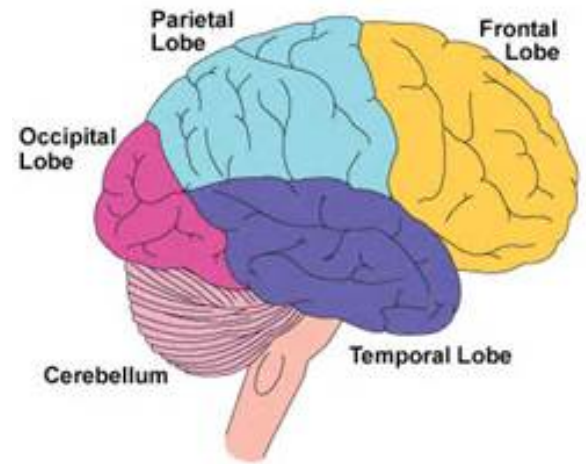
Stage of Seizures	What Happens During This Stage
Prodrome Phase	An "Aura" occurs, which is a warning sign for a seizure that may cause an odd sensation, dizziness, numbness, or vision changes. Not every person experiences an aura.
Ictal Phase	Loss of awareness/consciousness (black or pass out) Unable to hear Problems talking (may stop talking or speech may not make sense) Unable to swallow, drooling Rigid or tense muscles (part of the body or whole body) Convulsion Losing control of urine or stool unexpectedly Difficulty breathing, heart racing Biting of tongue from clenching teeth
Postictal Phase	Slow to respond or not able to respond right away Feeling depressed, sad, upset Scared, anxious Frustrated, embarrassed, ashamed May feel tired, exhausted or sleep for minutes or hours Headache or other pain Nausea or upset stomach Urge to go to the bathroom or lose control of bowel or bladder

- The end or final stage of a seizure is also known as the **Postictal** phase and involves what a person experiences after they had a seizure. This phase of recovery can happen immediately following the seizure or last for an hour or more as they person and their brain activity returns to normal. Following are behaviors and/or symptoms that are seen in people in the postictal phase of a seizure:
- ✓ Feeling sleepy or tired
 - ✓ Unable to remember the seizure or feeling confused
 - ✓ Bruises, cuts, or other physical injuries including injuries to the head
 - ✓ Weakness and fatigue

In addition to the different stages of seizures there are also different types of seizures. There are two primary types of seizures: **Generalized and Focal** or Partial. Generalized seizures affects the entire brain where focal seizures only impact one area of the brain. Generalized seizures are characterized by the severity of the symptoms experienced during the seizure. Seizures in which a person has convulsions where the whole body is affected are known as Grand-mal seizures. Less severe seizures that lasts only a few seconds are called absence or petit-mal seizures.

Focal seizures symptoms vary depending on the part of the brain affected. **Simple focal seizures** affect a small part of the brain and can cause twitching or a change in sensation, such as a strange taste or smell.

Complex focal seizures still occur in one area of the brain but may cause a person with epilepsy to be confused or dazed.



Epilepsy is very common among African-Americans

Current statistics estimate that 1 in 26 people will develop epilepsy during their lifetime resulting in nearly 2 million people living with this debilitating brain disorder. African-Americans account for nearly one-third of all who have been diagnosed as having epilepsy and more than half of them actively having seizures. This means that these individuals have at least one seizure in the past year and are taking medications to help control them. This poses a challenge for the African-American community as epilepsy significantly impacts a person's ability to perform daily activities, to work, to get an education, and to take care of their families.

CAN YOU PREVENT EPILEPSY?

The short answer is no since epilepsy occurs suddenly there are no ways to prevent it from happening. For those that are living with epilepsy there are things you can do help prevent or decrease the frequency of the seizures caused by epilepsy like making sure the follow your doctor's treatment plan, taking your medications on time and as prescribed, and avoid things that might trigger a seizure. There is no cure for epilepsy but with proper medications, medical devices, and a healthy lifestyle most people with epilepsy can live a normal and productive life.

It is also important to know and understand the *Do's and Don'ts* for dealing with epilepsy and seizures.

DO'S – protect the person from hurting themselves and those around them, help with breathing if they are unable to, stay with them until they have recovered or medical help arrives, and support them by letting them know they had a seizure if they can't remember.

DON'TS – restrain a person having a seizure, put anything in their mouth, or be judgmental.

HOW IS EPILEPSY TREATED?

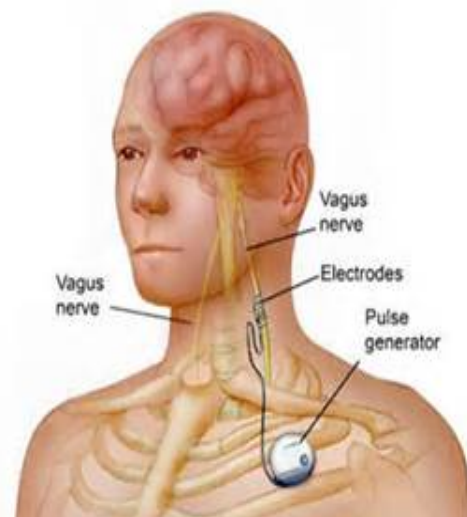
Epilepsy can be treated by either medications, implanted devices, diet, surgery or a combination of these therapies. Most people are able to control the seizures caused by their epilepsy with medications **called anti-epileptic drugs or AEDs**. The type and severity of the seizure will determine what and how much medication is needed. Good adherence to your medications is important to managing and controlling your epilepsy.

Surgery to correct the cause of the epilepsy may be an option to repair damages or deficiencies in the brain that causes the seizures. Another option involves using medical devices that help to correct and control the electrical impulses in the brain. Vagus nerve stimulation is a common device used to treat seizures. The device is implanted under your skin and sends mild electrical pulses to the Vagus nerve that helps control functions of our nervous system.

Like with most illnesses and disease living a healthy lifestyle is always necessary, epilepsy is no different.

Person with seizures should strive to:

- ❖ Exercise on a regular and consistent basis
- ❖ Get plenty of sleep; a lack of sleep could trigger seizures
- ❖ Eat a well-balanced diet
- ❖ Reduce and manage stress



ADDITIONAL RESOURCES

National Institute for Neurological Disorders and Stroke -

<http://www.ninds.nih.gov/disorders/epilepsy/epilepsy.htm>

The Centers for Disease Control and Prevention, Injury Prevention & Control -

<http://www.cdc.gov/epilepsy/index.html>

Epilepsy Foundation

www.epilepsyfoundation.org