Epilepsy is a medical condition that produces seizures affecting a variety of mental and physical functions. It is also called a seizure disorder. When a person has two or more unprovoked seizures, they are considered to have epilepsy. Seizures happen when clusters of nerve cells in the brain signal abnormally, which may briefly alter a person's consciousness, movements or actions.

According to the Centers for Disease Control and Prevention, epilepsy affects 2.2 million Americans. The Institute of Medicine, in their recent report "Epilepsy Across the Spectrum," says "the 2.2 million prevalence estimate is most accurately viewed as approximating a midpoint in a wide potential range of 1.3 million to 2.8 million people with epilepsy."

Epilepsy affects 65 million people worldwide.

While medications and other treatments help many people of all ages who live with epilepsy, more than a million people continue to have seizures that can severely limit their school achievements, employment prospects and participation in all of life's experiences. It strikes most often among the very young and the very old, although anyone can develop epilepsy at any age. In the U.S., it affects more than 300,000 children under the age of 15--more than 90,000 of whom have seizures that cannot be adequately treated.

The number of epilepsy cases in the elderly is climbing as the baby boom generation reaches retirement age. More than 570,000 adults age 65 and above have the condition. Our returning veterans are also affected as studies show an increased risk of developing epilepsy following traumatic brain injury.

Epilepsy is the fourth most common neurological disorder in the U.S. after migraine, stroke, and Alzheimer's disease. Its prevalence is greater than autism spectrum disorder, cerebral palsy, multiple sclerosis and Parkinson's disease combined. Despite how common it is and major advances in diagnosis and treatment, epilepsy is among the least understood of major chronic medical conditions, even though one in three adults knows someone with the disorder.

Seizures are symptoms of abnormal brain function. With the exception of very young children and the elderly, the cause of the abnormal brain function is usually not identifiable.

However, when seizures start, the physician will try to identify an underlying etiology (cause). This is because the most specific diagnosis as to why seizures are occurring depends on finding a cause, and proper therapy, and prognosis (or long term outcome) will depend on the cause.

If a specific diagnosis of cause cannot be made, then the epilepsy will be described according to seizure type or epilepsy syndrome.

**Symptomatic seizures** are called that when they can be linked to identifiable diseases or brain abnormalities.

**Cryptogenic seizures** are diagnosed when no cause for the seizures can be found. Idiopathic or primary seizures are diagnosed when a genetic (or family) cause for the seizures is suspected. When it is necessary to classify epilepsy according to cause, similar terms are used.

Causes of seizures (and sometimes epilepsy) are further divided into **acute** and **remote** causes. This sub-classification depends on whether there is active brain disease (an acute cause) or whether the brain abnormality is the result of an injury caused by a previous event (in which case it would be called remote). For example, if a child with meningitis experiences seizures during the illness, they would be termed **acute symptomatic** seizures. If that same child developed seizures 2 years afterwards, she would be diagnosed as having **remote symptomatic** epilepsy.

Many acute symptomatic causes of seizures may, if severe enough, continue to produce recurring seizures (chronic epilepsy) later on.

[Head Injury](http://www.epilepsyfoundation.org/aboutepilepsy/causes/headinjury.cfm) and [Genetic Factors](http://www.epilepsyfoundation.org/aboutepilepsy/causes/geneticfactors.cfm) can also cause seizures.



**Potential Causes of Epilepsy in:**

**Newborns**

* Brain malformations
* Lack of oxygen during, or before delivery, or at birth.
* Low levels of blood sugar, blood calcium, blood magnesium or other electrolyte disturbances
* Inborn errors of metabolism (chemical disorders)
* Intracranial hemorrhage (bleeding in the brain)
* Maternal drug use

**Infection (meningitis)**

* Infants and Children
* Fever (febrile seizures)
* Brain tumor (rarely)
* Infections
* Brain Malformation

**Children and Adults**

* Congenital conditions (Down syndrome; Angelman's syndrome; tuberous sclerosis and neurofibromatosis)
* Genetic factors (Primary seizure disorders)
* Progressive brain disease (rare)
* Head trauma

**Elderly**

* Stroke
* Alzheimer's disease
* Head trauma

http://www.epilepsyfoundation.org/aboutepilepsy/causes/index.cfm