

# Management of Epilepsy with Drugs

An individual with epilepsy experiences abnormal electrical signals in the brain. The condition is diagnosed after at least 2 unprovoked seizures have occurred. Seizures are generally characterized by a temporary change in consciousness, motor activity, or behavior. Children and individuals over 65 years of age are most likely to be diagnosed with this condition. Those who experience only one seizure are not considered to be epileptic.

Although genetics may play a role in the development of epilepsy, triggers such as a traumatic accident or stroke may also contribute to the development of this condition. The cause in many individuals is unknown.

Anti-epileptic medications are available to either completely eliminate seizures or to reduce their frequency and severity. The specific medication chosen depends on many factors, including age, the type and severity of epilepsy. Valproic acid (*Depakene*), carbamazepine (*Tegretol*, *Equetro*), and phenytoin (*Dilantin*) are different types of antiepileptic drugs that may be prescribed. Carbamazepine and phenytoin decrease seizures by inhibiting the body's voltage-gated sodium channels. Valproic acid decreases seizures by increasing gamma aminobutyric acid, an inhibitory neurotransmitter. It also may affect potassium channels.