Absence Seizure — A type of generalised seizure usually seen in children, characterised by transient impairment or loss of consciousness usually with staring, accompanied by a 3 per second spike and wave pattern on the electroencephalograph. These seizures respond well to medication and most children outgrow them.

Anticonvulsant (antiepileptic drug) — A medication used in prevention of the occurrence of seizures or to stop an ongoing series of seizures.

Atonic Seizure — Sudden loss or diminution of muscle tone without apparent preceding myoclonic or tonic event lasting one to two seconds or more, involving head, trunk, jaw or limb musculature.

Aura — A warning that a seizure may begin, often described as a "funny feeling." Some auras may be a small seizure that may develop into a larger seizure, or disappear.

Automatisms — Involuntary movements which accompany seizures, such as chewing, fumbling at a button or pulling on clothes. Can occur in generalized or partial seizures.

Clonic Seizure — An epileptic seizure characterised by rhythmic or semi-rhythmic contractions of a group of muscles. The arms, neck, and facial muscles are most commonly involved.

Complex Partial Seizure — A seizure that begins in a specific location in the brain and alters consciousness, causing confusion. Some clinical symptoms may include behaviours like a burst of anger, emotional outbursts, fear or automatisms. The EEG often reveals spike discharges in the temporal lobe during sleep.
**Comprehensive Epilepsy Center** — Clinics staffed by epileptologists and other experts in epilepsy treatment. They are valuable resources for anyone who has unresolved problems related to definite or suspected epilepsy. Patients may be referred to a comprehensive epilepsy center for a single outpatient visit to assess their diagnosis and therapy. Or, they may receive long-term follow-up and treatment, including epilepsy surgery, or the use of new medications that are still being investigated.

**CAT/CT Scan (Computerized Axial Tomography)** — CAT scanning adds X-ray images with the aid of a computer to generate cross-sectional views of the anatomy. It can identify normal and abnormal structures and be used to guide procedures. CAT scanning is painless. Iodine-containing contrast material is sometimes used in CAT scanning. If you are having a CAT scan and are allergic to iodine or contrast materials, you should notify your physicians and radiology staff.

**Convulsion** — An older term for a tonic-clonic seizure.

**Cryptogenic Epilepsy** — Presumed to be nongenetic, but cause unidentified.

**Electrode** — A small metal contact attached to a wire designed to record brain waves from the scalp or inside the brain.

**EEG (Electroencephalogram)** — A diagnostic test which measures the electrical activity of the brain (brain waves), used to search for epileptic spikes and abnormal rhythms.

**Epilepsy** — A neurological condition that intermittently produces brief disturbances in the normal electrical functions of the brain, called seizures.
Epileptic Focus — The site in the brain where a seizure begins.

Epileptologist — A neurologist specialising in Epilepsy.

Fit — A seizure.

Frontal Lobe Epilepsy — Epilepsy with seizures originating in the frontal lobe of the brain. A variety of clinical syndromes exist depending on the exact location of the seizures and the seizure type.

Generalized Seizure — A seizure that affects both hemispheres of the brain. Motor symptoms are on both sides of the body.

Grand Mal Seizure — An older name to describe a tonic clonic seizure.

Hemispherectomy — A type of epilepsy surgery in which one of the hemispheres of the brain is removed or disconnected. Can be extremely helpful in controlling seizures in appropriate patients.

Ictal — The seizure period or events due to a seizure.

Idiopathic Epilepsy — Epilepsy of unidentified cause, but thought to be genetic in origin.

Interictal — The period between seizures.

Intractable Epilepsy — Refers to seizures that cannot be stopped by medication also referred to as “Refractory Epilepsy.”
Ketogenic Diet — A high-fat, low-carbohydrate, and normal protein diet causing ketosis. Ketones are not dangerous. They can be detected in the urine, blood, and breath. Ketones are one of the more likely mechanisms of action of the diet; with higher ketone levels often leading to improved seizure control.

Lab analysis — Common blood analysis requested by your doctor can include: measurements of electrolyte levels (chemicals in the blood such as sodium and potassium), liver and kidney function tests, blood-cell counts, and monitoring of antiepileptic drug levels.

Lennox–Gastaut syndrome — A severe form of epilepsy that usually begins in early childhood and is characterised by frequent seizures of multiple types, impairment of mental development, and a particular brain wave pattern (a slow spike-and-wave pattern).

Lobectomy — The cutting out of the area of the brain that causes the seizures. The most common example of this type of surgery is the temporal lobectomy in which part of the temporal lobe of the brain is removed. The goal of this type of surgery for epilepsy is most often to stop the seizures completely.

Long-Term Side Effects — More troublesome side effects caused when certain antiepileptic drugs are taken for a long time can include: Poor memory and concentration, slow speech, word-finding difficulties, swollen gums, acne, weight gain/weight loss, and hair loss or thinning/excessive hair growth in unusual places.

MRI (Magnetic Resonance Imaging) — A special imaging technique used to visualise internal structures of the body. Images are very clear and are particularly good for soft tissue, brain and spinal cord, joints and abdomen. An MRI image is often superior to a normal X-ray image.


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Commission on classification and terminology of the ILAE. Proposal for Revised Classification of Epilepsies and Epileptic Syndromes; Epilepsia 3(4):389–399, 1989

C. P. Panayiotopoulos. The Epilepsies, 2005
- **Temporal Lobe Epilepsy** — A lobe of the brain which is located on the side and below the frontal lobes. This part of the brain is often the site of the epileptic focus and is responsible for hearing and sensing.

- **Therapeutic Range** — The range of drug levels within which most patients will experience significant therapeutic effect without an undesirable degree of adverse reactions. It is only a guide. Often patients require more or less medication to control their seizures than suggested by the therapeutic range listed on the laboratory report.

- **Tonic–Clonic Seizure** — A type of seizure that results in loss of consciousness, generalised muscle contractions, urinary incontinence, tongue biting and a post-ictal state (confusion and lethargy) following cessation of the seizure. Electrical discharge involves all or most of the brain.

- **Tonic Seizure** — An epileptic seizure that causes stiffening; consciousness is usually preserved. The seizure involves muscles on both sides of the body, and electrical discharge involves all or most of the brain.

- **Vagal Stimulator** — A device designed to control seizures, similar to a cardiac pacemaker, but with the electrode attached to the vagus nerve in the left neck.

- **West Syndrome** — An epileptic syndrome characterized by infantile spasms, mental retardation, and an abnormal EEG pattern (hypsarrhythmia); begins before 1 year of age.

- **Meningitis** — An inflammation of the meninges—the membrane surrounding the brain and spinal cord.

- **Myoclonic Seizure** — Characterized by sudden muscle jerks—often confined to one or more limbs or to the face and trunk or even to individual muscles or group of muscles; there may be a single or several jerks. May occur while falling asleep or within a short time of waking up. At many times they may be regularly repetitive.

- **Myoclonus** — A sudden, very brief muscle jerk of the body. Can be seen in a number of different epilepsy syndromes.

- **Neurologist** — A doctor who is skilled at diagnosing and treating diseases related to the nervous system.

- **Neuron** — A nerve cell. Billions of neurons interact to make up a working brain. Epileptic discharges are produced when groups of neurons misfire.

- **Neurotransmitter** — A substance that sends nerve impulses across a synapse.

- **Occipital Lobe Epilepsy** — An epilepsy where seizures originate from the occipital lobe. Symptoms commonly include visual abnormalities during seizures such as small, multicoloured circular patterns often appearing in the periphery of a visual field, becoming larger and multiplying during the course of the seizure, frequently moving horizontally towards the other side.

- **Parietal Lobe Epilepsy** — An epilepsy where seizures originate within the parietal lobe. Seizure symptoms may involve changes in the senses (such as tingling in the fingers or limbs). 

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- **Parietal Lobe Epilepsy** — An epilepsy where seizures originate within the parietal lobe. Seizure symptoms may involve changes in the senses (such as tingling in the fingers or limbs).
**Partial Seizure** — A seizure that begins in a specific location in the brain, such as (but not limited to) the temporal lobe.

**Petit Mal Seizure** — An older name to describe an absence seizure.

**Placebo** — An inactive substance sometimes used as a basis for comparison when new drugs are tested.

**PET (Positron Emission Tomography) scan** — A scan that uses an injection or radioactive tracer to measure brain metabolism and physiological function in an effort to locate the seizure focus. Often part of the evaluation before seizure surgery.

**Postictal** — The period immediately after a seizure.

**Pseudoseizures** — Clinically resemble epileptic seizures but without epileptic discharges from the brain. Also called psychogenic or nonepileptic seizures, most often caused by severe psychosocial stress.

**Seizure** — An uncontrolled burst of electrical activity in the brain that can result in a wide variety of clinical symptoms such as: muscle twitches, staring, tongue biting, urination, loss of consciousness and total body shaking. Some people may experience more than one type of seizure.

**Short–Term Side Effects** — Some side effects can happen at the start of taking antiepileptic drugs, while the body is adjusting to them and may lessen or disappear completely over time. These side effects can include: Sleepiness/fatigue, feeling unsteady—“woozy” or dizzy, irritability, allergic reaction/skin rash (these may not disappear).

**Side Effects** — An unwanted effect caused by a drug, especially on a tissue or organ system other than the effect sought by taking the medication. Any medication can cause side effects. Some side effects can happen at the start of taking antiepileptic drugs, while the body is adjusting to them and may lessen or disappear completely over time (called Short–Term Side Effects). More troublesome side effects can happen when certain antiepileptic drugs are taken for a long time (called Long–Term Side Effects).

**Simple Partial Seizure** — A seizure that begins in a specific location in the brain but does not alter consciousness. It may produce abnormal sensation, such as an unpleasant smell or a motor movement, such as jerking of an arm.

**SPECT (Single Photon Emission Computerized Tomography)** — A scan that uses an injection of a radioactive tracer to measure blood flow in the brain. Typically two SPECT scans are done, one during a seizure and one in between seizures. SPECT scans can help identify a seizure focus in preparation for surgery.

**Spike** — A characteristic finding on the electroencephalograph in patients with epilepsy which confirms diagnosis. A spike is the result of an abnormal synchronized electrical discharge in a population of neurons.

**Symptomatic Epilepsy** — Secondary to a previous CNS injury such as head trauma, stroke or infection; cause can be identified.

**Synapse** — The place at which a nerve impulse passes from one neuron to another.

**Telemetry** — Continuous monitoring of the electroencephalogram, often with video.