

Classification of seizures

Generally, seizures fall into the two categories: focal and generalized seizures. The difference between these types is how they begin.

Focal Seizures

Focal seizures (previously called partial seizures) start in one part of the brain and affect the part of the body controlled by that part of the brain. The symptoms the person experiences will depend on the function that the focal point is associated with or controls. The seizure may involve the involuntary movement or stiffening of a limb, feelings of déjà vu, an unpleasant smell or tastes, or sensations in the stomach such as butterflies or nausea. The seizure usually lasts less than two minutes.

People can have different levels of consciousness during focal seizures. Sometimes the person remains alert throughout the seizures and can remember what happens.

Focal seizures where the person retains full awareness of the event were previously called simple partial seizures. Focal seizures can also affect a person's level of consciousness. In some focal seizures the person is in a dyscognitive state. This means their level of consciousness is altered rather than lost. The person may often appear confused and dazed and may do strange and repetitive actions like fiddling with their clothes, making chewing movements or uttering unusual sounds.

These behaviours may also be described as trance-like or robot-like and are called automatisms. The seizure usually lasts for one or two minutes to several hours afterwards and have no memory of the seizure or the event's just before or after it. This type of seizure can be mistaken for drug/alcohol affected behavior or psychiatric disturbance. Focal dyscognitive seizures were previously known as complex partial seizures.

At times focal seizures can evolve to become generalized seizures.

Generalized seizures

Primary generalized seizures involve the whole brain and therefore involve the whole body. There are many types of generalized seizures – some convulsive, others non-convulsive.

Absence seizures (previously called petit mal seizures) -

These brief, non-convulsive events involve the whole brain and usually occur in children. With this type of seizure, the person's awareness and responsiveness are impaired, they simply stare and their eyes might roll back or their eyelids flutter.

It can be difficult to tell the difference between absence seizures and daydreaming. However, absence seizures start suddenly, cannot be interrupted, last a few seconds, and then stop suddenly. And

the person resumes what they are doing. Although these seizures last less than 10 seconds, they can occur many times daily, disrupting learning.

Myoclonic seizures –

Myoclonic seizures are brief, shock like jerks of a muscle or a group of muscles, usually lasting no more than a second or two, which at times can result in a fall. There can just be one, but sometimes many will occur within a short time. (clusters)

Atonic seizures –

Atonic seizures cause a sudden loss or decrease of normal muscle tone and the person often falls to the ground. Seizures usually last less than 15 seconds. Often called drop attacks, these seizures can cause head or facial injury. Wearing protective headwear may avoid injury.

Tonic seizures –

Tonic seizures greatly increase normal muscle tone and the body, or legs sudden stiffening movements. These seizures most often occur in clusters during sleep, although they can occur when the person is awake. If the person is standing they will fall quite heavily, often injuring their head. Protective headwear may avoid injury. Seizures usually last less than 20 seconds.

Tonic Clonic seizures (previously called grand mal seizures) –

During a tonic clonic seizure a person's body stiffens, air being forced past the vocal cords causes a cry or groan and they fall to the ground (the tonic phase). Their limbs then begin to jerk in strong, symmetrical, rhythmic movements (the clonic phase). The person may dribble from the mouth. Go blue or red in the face or lose control of their bladder and/or bowel as the body relaxes.

As consciousness returns, the person may be confused, drowsy, agitated or

depressed. They may have a headache and want to sleep. This drowsiness can last for a number of hours.

Although this type of seizure can be frightening to watch, the seizure itself is unlikely to seriously harm the person having the seizure. They may, however, vomit or bite their tongue and can sometimes injure themselves if they hit nearby objects as they fall or convulse.

Tonic clonic seizures generally last 1 to 3 minutes. If the active movements of the seizure last more than 5 minutes, it is advisable to call an ambulance.

Prolonged seizures, or a series of seizures without a normal break in between, indicate a dangerous condition called *convulsive status epilepticus* and demands emergency treatment.

Epileptic spasms –

These are seizures, which are seen more commonly in infants than in older children, and are characterized by brief movements that tend to occur in a cluster when the young person first awakes. The movements involve head dropping and the arms elevating, they may be abdominal 'crunches' that also occur. Subtle forms may only involve a jerk/drop of the chin. These are important to distinguish early as they may be associated with regression in development.

Information taken from Epilepsy Australia's brochure 'Seizures and Epilepsy, Seizure First Aid'

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