

Overview

Epilepsy is a common neurological (brain) disorder affecting 1- 2% of the population.

Epilepsy is characterised by recurrent, spontaneous, stereotyped seizures. Seizures are always due to bursts of electrical activity within the brain, caused by an imbalance in chemicals responsible for transmission of impulses.

What Causes Epilepsy?

Everyone has a genetically determined seizure threshold. Anyone can have a seizure if the trauma or disturbance is great enough to exceed the threshold. Factors such as fever, changes in blood chemistry, anxiety, sleep deprivation or alcohol, may influence the onset of a seizure.

About 70% of people develop epilepsy not knowing why. For the remaining 30% the cause is known and may be a result of:

- birth injuries
- severe head trauma
- tumours
- infections eg meningitis, encephalitis
- degenerative or vascular dementias
- stroke
- hormonal changes
- genetically inherited conditions eg. tuberous sclerosis

Recognising Seizures

A seizure can take any form depending on which part of the brain it arises from. It may present as a convulsion, unusual body movement, a change in awareness or simply a blank stare. The person may be unconscious or completely aware of what is happening.

Seizures are classified as:

1. Partial, affecting a small part of the brain
2. Generalised, affecting the whole brain.

1. Partial Seizures

The disturbance in the brain begins in or involves a distinct focal area. The function of this area determines the form the seizure will take.

Simple Partial Seizures

Consciousness is not impaired. May present as:

- tingling, numb sensation or twitching in arm, leg, face
- distortion of light, smell, sound and space
- unexplained fear or anxiety

Simple partial seizures may progress to involve the whole brain and often serve as a warning (aura).

Complex Partial Seizures

- an altered state of consciousness
- characterised by a change in awareness
- a blank stare
- semi purposeful inappropriate movements such as pulling at clothes, smacking lips, chewing or wandering in a dazed state.
- post seizure confusion is often prolonged.

2. Generalised Seizures

All of the brain is involved in this type of seizure resulting in a complete loss of consciousness.

Tonic Clonic Seizures

- becomes rigid, will fall if standing
- muscles relax and tighten rhythmically
- breathing may be laboured (blueness around lips)
- may be incontinent
- consciousness regained slowly
- may be sleepy and confused

Absence Seizures

- brief interruption of consciousness
- blank stare
may be fluttering of eyelids
- onset in childhood
- recovery instant

Tonic Seizures

- general stiffening of muscles without jerking
- may fall, usually backwards

Atonic Seizures

- also known as drop attacks
- sudden loss of muscle tone
- falls, usually forward (slumping)
- injuries common, especially to face and head

Myoclonic Seizures

- sudden brief jerking of limb
- may involve both sides.

This fact sheet should be read in conjunction with

'First Aid for Tonic Clonic Seizures'

Further information may be obtained from your local Branch of

Epilepsy New Zealand or

Helpline 0800 20 21 22