

Seizures

Different types of seizures

There are over *40 different types* of seizures but they are generally described in 3 major groups:

1. generalized onset seizures
2. focal onset seizures
3. unknown onset seizures.

The difference between types of seizures is how and where they begin in the brain.

For generalized onset seizures:

Motor symptoms may include:

- sustained rhythmical jerking movements (clonic)
- muscles becoming weak or limp (atonic)
- muscles becoming tense or rigid (tonic)
- brief muscle twitching (myoclonus)
- epileptic spasms (body flexes and extends repeatedly).

Non-motor symptoms are usually called absence seizures. These can be typical or atypical absence seizures (staring spells). Absence seizures can also have brief twitches (myoclonus) that can affect a specific part of the body or just the eyelids.

For focal onset seizures:

Motor symptoms may also include:

- jerking (clonic)
- muscles becoming limp or weak (atonic)
- tense or rigid muscles (tonic)
- brief muscle twitching (myoclonus)
- epileptic spasms.
- There may also be automatisms or repeated automatic movements, like clapping or rubbing of hands, lipsmacking or chewing, or running.

Non-motor symptoms: (examples of symptoms that don't affect movement)

- changes in sensation, emotions, thinking or cognition, autonomic functions (such as gastrointestinal sensations, waves of heat or cold, goosebumps, heart racing, etc.),
- lack of movement (called behavior arrest).

For unknown onset seizures:

Motor seizures are described as either tonic-clonic or epileptic spasms.

Non-motor seizures usually include a behavior arrest. This means that movement stops – the person may just stare and not make any other movements.

- Explaining types of seizures that are both generalized and focal:

<https://www.youtube.com/watch?v=6tVOqGSe3Jo>

Epileptic vs Non Epileptic Seizures

Most common are epileptic seizures, or seizures caused by sudden abnormal electrical discharges in the brain. Non-epileptic seizures, on the other hand, are not accompanied by abnormal electrical discharges.

- What is Non- Epileptic attack disorder?

https://www.youtube.com/watch?v=S_kGLolk6Qw

- What to do if someone is having a seizure

<https://www.youtube.com/watch?v=Ovsw7tdneqE>

The difference between epileptic and non-epileptic seizures is their underlying cause.

Causes

Epileptic

- Disturbance in electrical activity of the brain. Can either be if the brain messages are disrupted or too many are sent at once.
- What happens during a seizure depends on where in the brain the seizure activity happens and what that part of the brain does.

Symptoms

Epileptic:

Because epilepsy is caused by abnormal activity in the brain, seizures can affect any process your brain coordinates. Seizure signs and symptoms may include:

- Temporary confusion
- A staring spell
- Uncontrollable jerking movements of the arms and legs

- Loss of consciousness or awareness
- Psychic symptoms such as fear, anxiety or déjà vu

Non-epileptic seizures:

Although non-epileptic seizures start as an emotional reaction, they cause a physical effect. Features of the seizure can include:

- Palpitations (being able to feel your heart beat)
- Sweating
- A dry mouth
- Hyperventilation (over-breathing).

Some features of non-epileptic seizures are very similar to epileptic seizures. These physical features may include loss of awareness, loss of sensation, and loss of control of bodily movement.

Treatment

- **Care plans**
 - Covers your treatment, what to do if you have a seizure, and any preferences or lifestyle issues you have discussed.
- **Medication**
 - Anti- epileptic drugs (these are not generally helpful for NES without epilepsy, if you are taking them due to a previous diagnosis of epilepsy, your specialist may suggest you gradually reduce them) help control seizures in around 7 out of 10 people. Work by changing the levels of chemicals in your brain. **They do not cure epilepsy**, but they can stop the seizures happening. Some anti-epileptic drugs include sodium valproate, carbamazepine, lamotrigine, levetiracetam, topiramate.
 - Free prescriptions
- **Psychotherapy**
 - Recommended treatment for non-epileptic seizures and NES
 - Talking therapies
 - CBT- looks at how you think about things, how this affects you physically and emotionally, and how it affects how you behave.

Should have a review of your treatment at least once a year according to NICE guidelines, especially if you continue to have seizures, have side effects of your epilepsy medicines, if you are a woman planning a pregnancy, if you want to stop taking meds, if you are a woman of child bearing age taking sodium- valproate.

Living with seizures

- Driving – stop driving, reapply if you have been seizure free for 3 months (for non-epileptic seizures), or 12 months for epileptic seizures
- You can apply for a free bus pass if you can't drive due to seizures and can also apply for a disabled person's railcard if you have epilepsy and are taking epilepsy medication.
- Swim with a responsible adult – tell a lifeguard about your seizures
- Take someone with you if you want to go for a walk near open water
- Always wear a helmet whilst cycling
- Use hot appliances only with someone else in the room
- Risk assessment before carrying out any potentially risky activities
- Alcohol- drinking a lot can reduce the amount of some epilepsy medicines in your blood which could make you more likely to have a seizure. It can also make some side effects of epilepsy medicine worse. Drinking large amounts of alcohol may also cause seizures, which may start between 6 and 48 hours after you've stopped drinking.

Safety aids and equipment

- Medical ID products
 - ID jewellery
 - ID Cards- Medical ID cards can be carried in your pocket and wallet, and be filled in with information about you, your epilepsy and what to do in an emergency. Or they can be ones that you fill in the details yourself
- Alarms & Monitors- used to detect seizures. Wrist worn sensors, bed monitors, video monitors etc.
- Other protective equipment
 - protective headgear
 - safety pillows (anti-suffocation pillows)
 - pram security (can stop a pram or pushchair rolling away if you let go of the handle during a seizure).