

# FUNCTIONAL SEIZURES

**a.k.a. Non-Epileptic Attack Disorder (NEAD); Non-Epileptic Seizures (NES);  
Dissociative Seizures**

Functional Seizures are a subtype of Functional Neurological Disorder (FND)

FND refers to a group of disorders characterised by abnormal functioning of the nervous system, or abnormalities in the mode of action of aspects of the nervous system

## 1. WHAT ARE THEY?

Functional seizures are sudden, time-limited episodes of brain-network dysregulation that typically occur in the context of high arousal (arousal = level of activation in brain & body)

When the brain and body are calm, the level of arousal is low

When the brain/ body activate in response to the challenges of daily living, arousal increases

Normally, arousal increases in response to a challenge to help the person meet the demands of that challenge, and then decreases back to baseline.

But for people with functional seizures, when their body and brain activates, it can go into a state of overdrive and temporary dysregulation. However, many people report that their functional seizures can also happen when they feel calm and relaxed, so the relationship between seizures and arousal is complex.

**The individual with functional seizures is NOT within control of their events and cannot choose to stop them from happening**

## 2. WHAT DO THEY LOOK LIKE?

There are a number of different ways a functional seizure might look, e.g.:

- Loss of voluntary control of motor function: including shaking, jerking, twitching, loss of movement, or falling down
- Change in consciousness/ loss of consciousness: including zoning out, feeling disconnected or weird, feeling unresponsive, difficulty thinking clearly, or slumping down.
- Functional seizures can also change in their presentation over time.

## 3. HOW ARE THEY DIFFERENT FROM EPILEPSY/ EPILEPTIC SEIZURES?

Functional seizures are different from epileptic seizures

Epileptic seizures are caused by sudden, abnormal electrical discharges in the brain.

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Functional seizures can look just like epileptic seizures, but they are not caused by abnormal electrical discharges.

Instead, they are believed to arise from various biological, psychological and social pressures/ stresses (risk factors) that combine to affect the functioning of the brain.

These stressors vary from one individual to another, and may include the following

**PHYSICAL STRESSORS:** e.g. pain, hyperventilation, fatigue, illness

**EMOTIONAL STRESSORS:** e.g. grief, worry, conflict, distressing memories or sudden fear/ anxiety

**SOCIAL STRESSORS:** e.g. relationship difficulties, work-related stress, education-related stress

Some (**but not all**) people with functional seizures may have a history of trauma.

**Some individuals have a DUAL-DIAGNOSIS: i.e. they experience both epileptic seizures AND functional seizures. It is NB that each seizure type is correctly diagnosed and treated.**

#### 4. HOW COMMON ARE THEY?

Although many people have never heard of functional seizures, they are quite common. Studies suggest that up to a third of the seizure presentations to neurology departments are functional seizures.

#### 5. HOW ARE THEY DIAGNOSED?

A diagnosis of functional seizures will be made by a neurologist based on information that may include clinical history, witnessed descriptions of seizures, home videos, a video electroencephalogram (EEG), and any other necessary medical tests.

#### 6. HOW ARE THEY TREATED?

The main treatment for functional seizures is with psychology. The aims of treatment are to try and understand what factors might be triggering or maintaining the seizures. The origins, triggers, and maintaining factors will be different for each person. Treatment may also include learning skills such as mind-body regulation strategies (e.g. deep breathing, grounding techniques, mindfulness, visualisation, progressive muscle relaxation).

There is no specific medication for treating functional seizures. However, medication may be prescribed if the person has additional difficulties such as anxiety or depression, which often co-exist with functional seizures.

Other factors which may be an important part of treatment include healthy life-style approaches, such as having good sleep, a healthy diet and healthy levels of activity/ exercise.