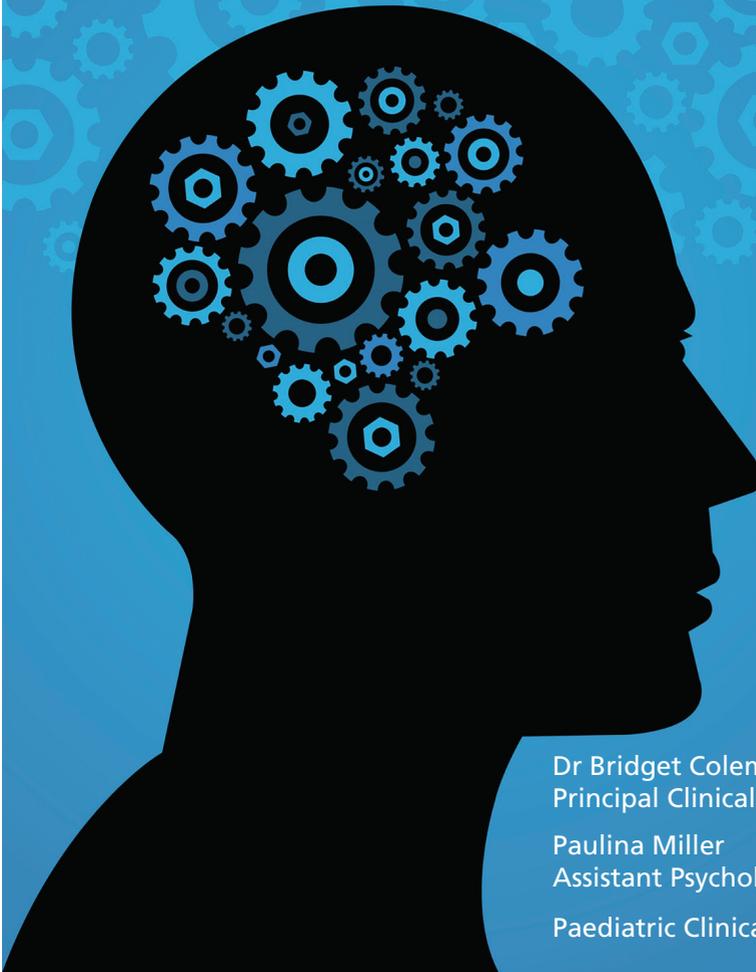




James Paget
University Hospitals
NHS Foundation Trust

Functional Neurological Disorders (FND)



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Introduction

You have been sent this information because you, or someone you look after, have been diagnosed with a Functional Neurological Disorder (FND) and have been referred to the Paediatric Clinical Psychology Service at the James Paget University Hospital. People often find it helpful to have access to some information before they meet with someone from our team. Scan the QR codes to access videos.



What is FND?

FND is an umbrella term that covers lots of different symptoms. The term 'functional' describes when a part of your body isn't functioning in the way you expect it to.

A common way of explaining FND is to think of your brain as being like a computer. The computer has hardware (physical components such as cables and hard drives) and software which tells the hardware what to do and how to do it. The brain's software controls how it communicates with the body and the outside world. FND can be thought of as being like temporary glitches in the software part of the brain, rather than hardware damage.

Click on this QR code for a different explanation of FND.



Making sense of a FND diagnosis can be hard. There is still lots we don't know about FND. Research is on-going to help us find out more. We understand that the symptoms of FND are very real for you, and you will be believed.

Symptoms of FND

FND can present with lots of different symptoms that may change over time. This is because every function that is controlled by the brain can be affected. Below are some of the symptoms. The *italic* symptoms are not direct symptoms of FND, but they are often associated with FND.

Functional hearing loss	Functional tics
Weakness of limb function	Persistent Postural-Perceptual Dizziness
<i>Headache</i>	<i>Fatigue</i>
Problems with thinking/memory or concentration	<i>Sleep problems</i>
Functional tremor	Functional seizures/ non epileptic attacks/ paroxysmal episodes
<i>Pain</i>	<i>Anxiety and panic</i>
Disturbances to vision	Difficulty with speech/ swallowing
<i>Low mood</i>	

We talk more about functional seizures on the next page, but for more detailed information on the other symptoms you can visit www.neurosymptoms.org or scan the QR code:



What are Non-Epileptic Attacks?

Doctors may use different terms including functional seizures, non-epileptic seizures, non-epileptic attack disorder (NEAD), or paroxysmal episodes. To most people a non-epileptic seizure may look like an epileptic seizure, however a doctor is able to identify clear differences.



Functional seizures happen through a process in the brain known as 'dissociation', which is as a break in the way our minds process information. Dissociation is a way for the brain to 'shut down' to protect itself when it is overwhelmed.

These non-epileptic seizures are often triggered by experiences of stress, but do not always have an obviously identifiable stress-related trigger. They may also be linked to prediction errors, or disruption in the way our brains make predictions about the world around us.



You may find it useful to watch the video through the above QR code. Here three teenagers talk about what it was like for them to experience non-epileptic seizures.

What causes FND?

Stress Vulnerability Model for understanding FND

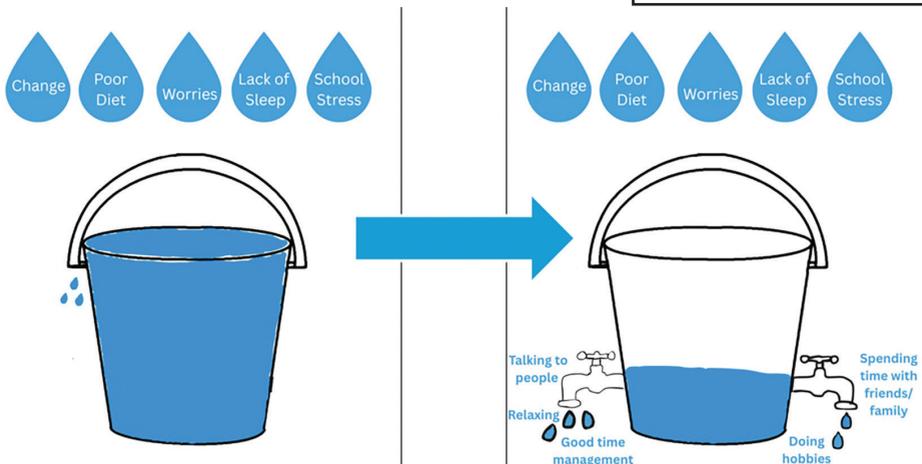
Sometimes FND is caused by changes in our body's stress systems.

Our body reacts to perceived threats with a protective stress response. These threats can be physical (injury and infections), psychological (thoughts and feelings) or social (changes in friends, family, and life circumstances). When the threats are no longer present our bodies are supposed to return to normal functioning. However, if the stress system is activated too much, or for too long, or it fails to return to its normal baseline, then it can have lasting changes for the way our stress system works. This can affect neural networks and trigger the start of FND symptoms.



The stress-vulnerability bucket is often used when explaining this model. Everyone has a stress bucket (also known as a stress system), although everyone's bucket is a different size and shape. The bucket gets filled by our emotional responses to challenges in life and can overflow. This might be when FND symptoms show. It's possible to learn ways to empty our bucket before it overflows.

Scan this QR code to watch a video explaining the stress-vulnerability bucket.



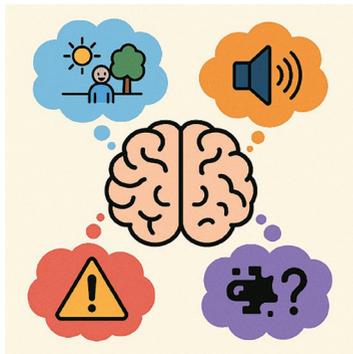
We often see young people develop FND who have had a physical injury, been unwell, experienced a distressing life-event or change, or who have lived with long standing stress or uncertainty. Sometimes the factors involved in developing FND can be less obvious, and might require more time and discussion to understand them further.

FND often starts in early teenage years and occurs more commonly in teenagers with female hormones. FND is also more likely to develop in those with a diagnosis of epilepsy, or with perfectionism traits, or experiencing anxiety. Also, in neurodivergent individuals, and alongside Autism, ADHD and learning difficulties (especially if they find it hard to identify emotions).



This QR code brings you to an animated video which explains stress and suggests some helpful things you can try to empty your bucket.

Predictive Processing Model for understanding FND

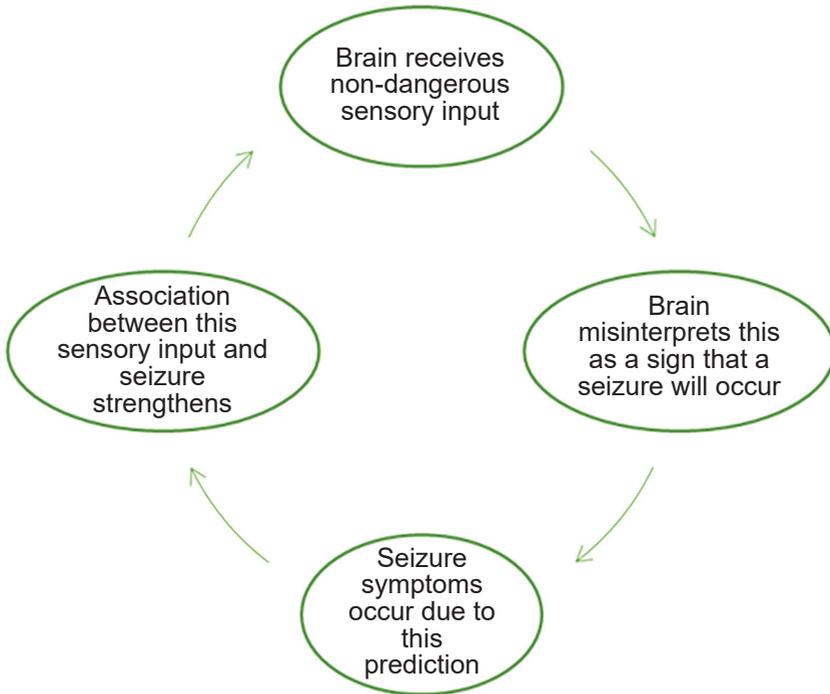


Our brains are constantly making predictions about the world around us based on past experiences. The brain uses those predictions to interpret and respond to the world. For example, our brains know that the most likely outcome of touching something hot would be pain. So, if we see our hand about to touch a hot surface, our brains predict that we are going to feel pain and make sure we automatically move our hand away to keep us safe.

When the brain's predictions don't match what is actually happening it tries to correct the mistake, but sometimes the brain keeps relying on the wrong prediction. This is called a prediction error. This can lead to real symptoms, even if there's no physical damage.

For example, in functional seizures, the brain misinterprets some sensory information and wrongly predicts that a seizure is likely to

happen. If a functional seizure happens, the brain strengthens the link between the sensory information and a seizure outcome. This means that next time you come across the same sensory information the brain is likely to misinterpret it again.



This QR code contains a video explaining the predictions that our brains like to make.



What you can start doing that might help

When you come to see us, we will take time to understand you and your symptoms. We help people to make sense of any past contributing stressful events as well as thinking about how to manage stress on a day-to-day basis.

In the meantime, there are plenty of things you can get started with:

- Keep trying to do as much as you can whilst keeping safe. Avoiding activities because of symptoms or putting too much focus on symptoms can make them worse.
- Speak to school/college, friends, and family members about FND so that they know what is happening; remind them to treat you as they usually would.
- All young people with FND should have a care plan written with schools/colleges to help have a consistent plan for managing symptoms.
- Take time to talk about feelings, practice checking in and naming what is going on. If words are hard, you can try creative approaches like drawing how you feel or writing a journal.
- Having a regular sleep pattern and getting enough sleep each night is important for people with FND. There are some useful resources at the bottom to help you with this.
- Try to regularly eat a balanced and varied diet and drink plenty of water.



SAFETY



SUPPORT



RELATIONSHIPS



DIET



SLEEP



FEELINGS

Summary

- FND is an umbrella term that covers lots of different symptoms.
- FND isn't thought to be caused by an underlying medical condition.
- FND is thought to be caused by temporary changes in the neural networks.
- We know that the symptoms of FND are real and we will believe you.
- There are lots of things we can do to help you live well alongside FND.

Resources

FND Web Resources/Apps

<https://www.neurosymptoms.org/en/>

Large amounts of material and information on symptoms and research.

<https://www.neurokid.co.uk/>

Information for young people and families living with non-epileptic attack disorder (NEAD).

<https://www.fndhope.org/resources/>

FND hope is a charity that brings together lots of information and research and can signpost to many more resources.

FND Action <https://www.fndaction.org.uk/>

myFND - <https://myfnd.co.uk/>

myFND is an app for your phone that has been designed to help you understand and track your symptoms of FND with strategies to help manage them.

General wellbeing Apps/Websites

Smiling Mind - https://www.smiling_mind.com/

Smiling mind is a mindfulness app with meditation and calming relaxation exercises.

Uses fun games and calming activities to help children manage anxiety.

CAMHS Resources - <https://www.camhs-resources.co.uk/>

Has lots of resources with booklets to download, links to websites, apps and videos on a wide range of topics relating to wellbeing and mental health of young people.

Sleep foundation - <http://www.sleepfoundation.org>

Influencer with FND - [Holly Attlesey \(@hollyattlesey\) | TikTok](#)

NSFT and Psychology in Schools Parent Workshop Programme

Workshops which aim to provide parents with information and guidance around mental health and emotional wellbeing including sleep. Workshops can be accessed live or as recordings and cover a wide range of topics and issues.

<https://www.nsft.nhs.uk/parent-workshops/>

<https://www.eventbrite.co.uk/o/psychology-in-schools-team-nsft-32627846273>

If you are feeling concerned about someone's safety ring NHS 111, option 2.

OUR VALUES

Proud of the Paget

Collaboration

We work positively with others to achieve shared aims

Accountability

We act with professionalism and integrity, delivering what we commit to, embedding learning when things do not go to plan

Respect

We are anti-discriminatory, treating people fairly and creating a sense of belonging and pride

Empowerment

We speak out when things don't feel right, we are innovative and make changes to support continuous improvement

Support

We are compassionate, listen attentively and are kind to ourselves and each other



communication for all

The hospital can arrange for an interpreter or person to sign to assist you in

communicating effectively with staff during your stay. Please let us know.

For a large print version of this leaflet, contact PALS 01493 453240