



# Neuro and eye Conditions



# And what they are

# Epilepsy

Epilepsy is a condition that affects your brain and causes seizures (sometimes called fits). It cannot currently be cured, but treatment can often help manage it. The word "epilepsy" simply means the same thing as "seizure disorders." It does not state anything about the cause of the person's seizures or their severity.

## Symptoms of Epilepsy

According to the NHS the only symptom of this condition is having seizures themselves but symptoms of a seizure will depend on the origins of the seizure in the brain and this will include the following:

- ◆ **your body becoming stiff or floppy**
- ◆ **suddenly falling to the floor**
- ◆ **jerking or twitching movements in your body**
- ◆ **peeing unintentionally**
- ◆ **losing awareness of what's around you – you may stare into space and not be able to respond normally**
- ◆ **unusual feelings or sensations, such as strange smells, numbness or tingling, changes in your vision, or suddenly feeling scared**
- ◆ **unusual behaviour, such as fidgeting or walking around and not being aware of what you're doing**

A seizure usually will only last a few seconds or minutes and will stop by itself. You may also be aware of having a seizure where you will remember it afterwards or you may not. Symptoms of epilepsy often start in young children and people over 50, but it can happen at any age. Epileptic seizures are different from febrile seizures, which can happen in children when they have a high temperature. It is important to note that there are different types of seizures that will affect people differently. The main types are as followed:

- ◆ **Tonic clonic seizures, where you become unconscious and may fall, your muscles get stiff and your body jerks and shakes**
- ◆ **Tonic seizures, where your muscles suddenly get stiff and you may fall, then recover quickly**
- ◆ **Atonic seizures, where your muscles suddenly go floppy and you may fall, then recover quickly**
- ◆ **Absence seizures, where you briefly lose awareness of what's going on around you**
- ◆ **Focal seizures, where you have unusual feelings, sensations or movements**
- ◆ **Myoclonic seizures, where your muscles briefly jerk**

## Causes of epilepsy

Epilepsy normally happens when the normal electrical activity in your brain changes. It is thought that it can be often related to the genes you inherit or to the changes in your genes. It is however sometimes caused by damage to your brain. This can be through a head injury, a stroke or an infection. But for many people it is not clear what causes it.

## How is it diagnosed?

If someone has experienced a seizure then they will be sent to a specialist doctor and they will do checks to see whether you have the condition or not. They will ask you what happened before and after the seizure itself. It is really helpful if someone was around at the time of the seizure to go with a person to provide more information. Tests that will be carried out may include:

- ◆ **An electroencephalogram (EEG) to check electrical activity in your brain**
- ◆ **An electrocardiogram (ECG) to check your heart**
- ◆ **Scans such as an MRI scan or CT scan**
- ◆ **Blood tests**
- ◆ **Genetic testing**

It is important to note that having a seizure doesn't always mean that a person has epilepsy. If the tests show you've had more than 1 or at risk of having more that is normally when an formal diagnoses is made.

## Treatment for epilepsy

Treatment starts with having support from your GP and a team of specialists. You will have yearly checks at the least and a team will work with you to agree on a care plan which will include telling family or carers what to do in the event of a seizure.

The main treatment for the condition is medicine to prevent the seizures called anti-epileptic or anti-seizure medicine. You may also be given emergency a seizure lasts longer than usual this will need to be done by a family member or carer. There are different medicines used it will be dependant on type of seizures, age, sex and any other conditions you may have. Different medicines will be tried to see what works for an individual. For the most part the medicine given works but in rare cases other treatments may be used these will include:

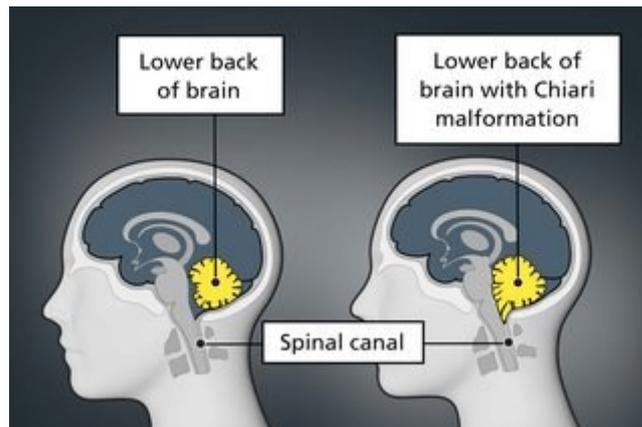
- ◆ **Surgery on the brain**
- ◆ **Putting a small electrical device under the skin on your chest to help reduce seizures (vagus nerve stimulation)**
- ◆ **A specialist diet that can reduce seizures (ketogenic diet)**

If someone has not had a seizure for 2 years, the specialist may suggest they try stopping the treatment by gradually reducing the dose.

**However do not change your dose or stop taking your medicine without talking to your specialist.**

# Chiari malformation

A Chiari malformation, previously called an Arnold-Chiari malformation, is where the lower part of the brain pushes down into the spinal canal. It is a structural defect where the lower part of the brain (cerebellum) extends into the spinal canal through the skull's opening. There are 4 main types, but type 1, called Chiari I, is the most common. Chiari I malformations are not considered life-threatening



## Symptoms of Chiari I malformations

Many people with this condition do not experience any symptoms with this and is usually found during an MRI scan of the brain for another reason.

If however they do the develop they will include the following:

- ◆ **Headaches – these are usually felt at the back of the head and may be brought on or made worse by coughing, straining, sneezing or bending over**
- ◆ **Neck pain**
- ◆ **Dizziness and balance problems**
- ◆ **Muscle weakness**
- ◆ **Numbness or tingling in the arms or legs**
- ◆ **Blurred vision, double vision and sensitivity to light**
- ◆ **Swallowing problems**
- ◆ **Hearing loss and tinnitus**
- ◆ **Feeling and being sick**
- ◆ **Difficulty sleeping (insomnia) and clinical depression**

There's a chance of developing syringomyelia (where a fluid-filled cavity called a syrinx develops in the spinal cord), which can damage the spinal cord if not treated promptly. If you do develop this then you may experience problems using your hands, difficulty walking, pain and problems with bladder or bowel control.

## Causes of Chiari malformations

According to the NHS the exact cause of this condition is unknown. However it tends to be present from birth but only gets discovered in adulthood. Many cases are thought to be the result of part of the skull not being large enough. It can also develop in people with tethered spinal cord, a build-up of fluid on the brain (hydrocephalus), and some types of brain tumour. Chiari malformations can sometimes run in families. It's possible that some children born with it may have inherited a faulty gene that caused problems with their skull development. But the risk of passing a Chiari malformation on to a child is very small.

## Treatments for Chiari I malformations

Treatments for this condition will depend on if there any symptoms and how they severe they are. You may not require any treatment but you be given painkillers to relieve any headaches or neck pain. If however these become severe or there is pressure on the spinal cord. That is when surgery may be recommended.

The main operation for Chiari malformation is called decompression surgery. Under general anaesthetic a cut is made at the back of the head and the surgeon removes a small piece of bone from the base of the skull. They may also remove a small piece of bone from the top of the spine. This will help reduce the pressure on the brain and allow the fluid in and around the brain and spinal cord to flow normally. Other procedures may be necessary and can include:

- ◆ **Endoscopic third ventriculostomy (ETV) – a small hole is made in the wall of one of the cavities of the brain, releasing trapped fluid.**
- ◆ **Ventriculoperitoneal shunting – a small hole is drilled into the skull and a thin tube called a catheter is passed into the brain cavity to drain trapped fluid and relieve the pressure.**
- ◆ **Untethering – some children with a type 1 Chiari malformation have a tethered spinal cord, which means it is abnormally attached within the spine. Untethering involves separating the spinal cord and releasing tension in the spine.**
- ◆ **Spinal fixation – some people with Chiari I will have a hypermobility syndrome, such as Ehlers-Danlos syndrome, and may require surgery to stabilise their spine.**

The aim of surgery is to stop existing symptoms getting any worse. Some people also experience an improvement in their symptoms, particularly their headaches. However, surgery sometimes results in no improvement or symptoms getting worse. There's also a small risk of serious complications, such as paralysis or a stroke.

# Multiple sclerosis

Multiple sclerosis (MS) is a condition that affects the brain and spinal cord. It cannot currently be cured, but treatment can often help manage it. It is a chronic autoimmune disease where the immune system attacks myelin, the protective sheath around nerves in the brain and spinal cord, disrupting nerve signals and causing varied neurological symptoms. There is no single test to diagnose MS but you may have tests like blood tests and MRI scans. You may have a lumbar puncture or sensors attached to your skin to measure how quickly messages from your eyes or ears travel to the brain. There are 3 main types of multiple sclerosis (MS). They affect everyone differently. They are the following:

- ◆ **Relapsing remitting- You have flare-ups of symptoms where they get worse (relapse) and then go away or get better (remission). Over time, this type often develops into secondary progressive MS.**
- ◆ **Secondary progressive- Your symptoms are there all the time, and get slowly worse. this type of MS can come after relapsing remitting MS.**
- ◆ **Primary progressive- Your symptoms slowly get worse over time. You do not have periods when they go away or get better (remission). This is less common than the other types of MS.**

## Symptoms of MS

According to the NHS there are lots of possible symptoms of MS. However the condition effects everyone differently. The most common symptoms are the following:

- ◆ **feeling extremely tired (fatigue)**
- ◆ **problems with your eyes or your vision, such as blurred vision or eye pain**
- ◆ **numbness or a tingling feeling in different parts of the body**
- ◆ **feeling off balance, dizzy or clumsy (uncoordinated)**
- ◆ **muscle cramps, spasms and stiffness**
- ◆ **needing to pee more often or not being able to control when you pee**
- ◆ **problems with memory or concentration**
- ◆ **sexual problems, including a dry vagina or erection problems**

For some people, MS only has a small impact on daily life which means you can continue with your work and usual activities. However others have more severe symptoms which can have a much bigger impact. MS symptoms can affect mobility, and you may need to adapt your life by using mobility aids, reducing working hours or needing more help around the home. There is no prediction on how it will affect each person. Multiple sclerosis (MS) can be a difficult condition to live with, both physically and emotionally.

## Causes of MS

Multiple sclerosis (MS) happens when your immune system attacks the brain and nerves. It's not clear what causes this. However it is more likely a person will get MS due to the following:

- ◆ you're aged 20 to 50
- ◆ you're a woman – women are more likely than men to get MS
- ◆ you have a brother, sister or parent who has MS
- ◆ you smoke – people who smoke are about twice as likely to develop MS
- ◆ you've had the Epstein-Barr virus (a common virus that causes illnesses such as glandular fever)

## Treatment of MS

There is unfortunately no cure for MS but there treatment options to slow the progression and help ease symptoms. These treatments will depend on the type and will change over time. Healthcare professionals will support you from a specialist MS nurse, neurologist a, physiotherapist and occupational therapist.

Treatment and support may include:

- ◆ steroid medicine to reduce swelling and help nerves work better
- ◆ medicines called disease-modifying therapies to reduce how many relapses you have and how serious they are
- ◆ muscle relaxant medicine to help relieve muscle spasms, cramps or stiffness
- ◆ medicine to treat pain, vision problems and other symptoms
- ◆ advice about how to manage tiredness (fatigue)
- ◆ physiotherapy and exercises to help with movement problems and muscle pain
- ◆ mobility equipment (including walking sticks, frames and wheelchairs) and home adaptations (such as stair lifts or railings) to help you with day-to-day activities
- ◆ cognitive behavioural therapy (CBT) to help with anxiety, depression and fatigue
- ◆ activities to improve your memory, concentration, thinking and mood (cognitive rehabilitation)
- ◆ advice, exercises and medicines to help with bowel or bladder problems
- ◆ advice and treatments for sexual problems such as erectile dysfunction, vaginal dryness, low sex drive (loss of libido) or difficulty reaching orgasm

# Glaucoma

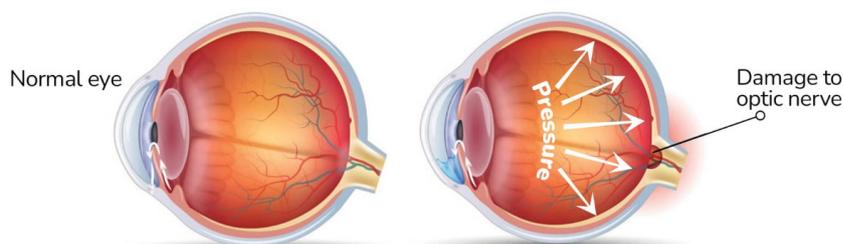
Glaucoma is an eye condition where the main nerve, which connects the eye to the brain, becomes damaged. It's most common in adults aged 50 and over and can cause vision loss if it's not diagnosed and treated early. Glaucoma is usually found during a routine eye test, often before it causes any symptoms. If you're told you have glaucoma, you should be referred to a specialist eye doctor (ophthalmologist) for further tests. There are different types of glaucoma these can include:

- ◆ **primary glaucoma – this is the most common type, which usually develops slowly over many years**
- ◆ **secondary glaucoma – usually caused by another condition or eye injury**
- ◆ **childhood glaucoma – a rare type that affects young children**

## Symptoms of Glaucoma

According to the NHS glaucoma does not usually have symptoms and most people do not realise they have it. It develops slowly over the years and is usually discovered during eye tests. It normally affects both eyes but it may be worse in one eye. It can however cause sudden symptoms that are the following:

- ◆ **intense eye pain**
- ◆ **a red eye**
- ◆ **tenderness around the eyes**
- ◆ **seeing rainbow-coloured circles around bright lights**
- ◆ **blurred vision**
- ◆ **feeling sick (nausea) and being sick**
- ◆ **a headache**



**What Is Glaucoma?**

## Causes of Glaucoma

It is usually caused by a build up of pressure in the eye. This happens due the fluid in your eyes not being to drain as it should. This causes damage to the nerve that connects the eye to the brain (optic nerve. Sometimes the pressure can be within the normal range but the optic nerve is still damaged. It is not always known why this is happens but you are ate risk more so due to the following:

- ◆ **you're over 50 years old**
- ◆ **you have a brother, sister or parent with glaucoma**
- ◆ **you're from a Black African, Caribbean or Asian background**
- ◆ **you have other medical conditions – such as short-sightedness, long-sightedness or diabetes**

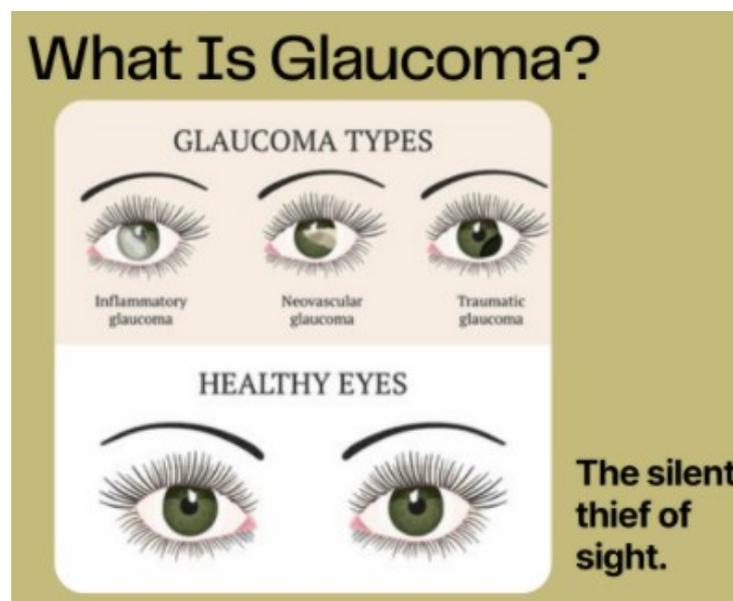
## Treatment for glaucoma

Unfortunately there is no cure for the condition, but there are treatments that can slow down the damage and help stop your vision getting worse. The type of treatment depends on the type of glaucoma you have.

These treatments may include:

- ◆ **eye drops – to decrease the amount of fluid in the eye and help it drain**
- ◆ **laser treatment – to decrease the amount of fluid in the eye**
- ◆ **surgery – there are several different types of operation to treat glaucoma**

Having glaucoma may mean you need to do things to prevent it from getting worse. For many people this includes using eye drops daily and attending regular eye clinic appointments.





# Information provided by

[www.nhs.uk](http://www.nhs.uk)

<https://www.eyecarenow.com/what-is-glaucoma/>

<https://www.epilepsy.com/what-is-epilepsy>

**Important : Please see your GP about any of these conditions if you think you may have them. We are not doctors so always see your own doctor about any health concerns. This is an information leaflet made easy for people to access and all using information researched and personal experience. We are here to help as a support group as that is what we are. Thank you.**

