

CHOCICEFS

WHAT IS MS?

Multiple Sclerosis (MS) is a disease of the central nervous system (your brain and your spinal cord). The central nervous system cells are covered in a protective layer of fatty protein called the myelin sheath (a bit like the insulation on an electrical cable). MS is an auto-immune disease, where the immune system gets confused and instead of attacking an infection or virus, the immune system turns on itself and attacks the nerve cells, damaging this protective sheath. This process is called **demyelination**. The demyelination disrupts the 'messages' being transmitted from the brain, causing them to slow down, become distorted or not get through at all.

The term 'Sclerosis' means scarring. Demyelination causes many scars or **lesions** in different places within the central nervous system. The symptoms that occur depend on the site and severity of the lesions and this is why people with MS experience different symptoms at different times.

Approximately 100,000 people in the UK have MS and there are roughly three times as many women with MS as men. MS is usually diagnosed between the ages of 20 and 40. Children and older adults can develop MS but this is less common.

In the earlier stages of MS, the central nervous system can sometimes repair the damaged myelin or use different pathways for the signals. This is why episodes of symptoms (relapses) can be followed by periods of time when symptoms improve or disappear altogether (remission).

Common symptoms at diagnosis

- Fatigue
- Optic Neuritis (Loss of vision in one eye, blurred or double vision)
- Weakness of limbs
- Reduced co-ordination
- Balance problems
- Numbness, pins & needles

What causes MS?

Although it is not yet certain why people develop MS, research suggests that a combination of genetic and environmental factors are involved:

Genetic

MS is not directly inherited; however there does appear to be a genetic component – possibly a combination of certain genes – which makes people more susceptible. Family members of someone diagnosed with MS have a slightly higher chance of developing MS themselves.



Environmental

Studies have found that the further north from the equator you live, the higher the chance of developing MS. It appears that there is a higher rate of MS in the UK (MS is more common in Scotland than in the rest of the UK), North America and Scandinavia but a very low chance in countries like Malaysia which are very close to the equator.

Some research suggests that there is a link between MS and Vitamin D deficiency. Vitamin D mostly comes from exposure to sunlight so this could be a factor. Research on this matter is ongoing.

How is MS diagnosed?

You will be referred to a neurologist who will look at your medical history and examine you. You are then likely to undergo a number of tests including:

Magnetic Resonance Imaging (MRI) Scan – this will identify any areas of the brain or spinal cord that may have scarring.

Lumbar Puncture – A lumbar puncture (also known as a spinal tap) is used to take a sample of spinal fluid to test for abnormalities.

Evoked Potentials – simple tests that measure the time it takes for the nerves to respond to electrical stimulation.

A positive diagnosis can take some time and these tests are not always conclusive.

Common misconceptions about MS

'Everyone with MS becomes severely disabled' – For the vast majority of people with MS, this is untrue. Rapid progression is rare and most people with MS do not need to use a wheelchair on a regular basis.

'I am going to lose my independence' – For most people this is also untrue. Most people with MS continue to enjoy an active life for many years after they are diagnosed.

'My children will get MS' – MS is NOT inherited in the same way as say hair colour. There is a slightly greater risk of your children developing MS; however the risk is still very small.

'MS is a terminal illness and I am going to die early' – Most people with MS live just as long as anyone else. Although MS cannot yet be cured, it is not a life-threatening or terminal illness but what is known as a chronic condition. This means that once you have it, you have it for life; however it will not threaten your life.

Although there is currently no cure for MS, there are ways to manage the disease, including drug therapies, alternative therapies and various aids to give you relief from your symptoms. We have a range of Choices leaflets which go into each of these in more detail.

MS does not need to be as devastating a diagnosis as it may first seem. If you have access to good information, the right treatments and support from both your family and healthcare professionals, you can still live a happy and fulfilling life.