

Neurosciences

What is multiple sclerosis (MS)?

Multiple sclerosis (MS) is a condition that can affect the brain and spinal cord. Your brain controls bodily activities, such as movement and thought, and your spinal cord is the central message pathway.

MS is one of the most common causes of disability in young adults.

What causes MS?

In MS, the immune system which normally helps to fight off infections, mistakenly attacks the brain or spinal cord of the nervous system. It attacks the myelin, stripping it off the nerve fibres either completely or partially, leaving scars known as lesions or plaques.

The exact causes of MS are unknown but are thought to be a combination of environmental and genetic factors.

How is MS diagnosed?

There is no single sign or symptom that is specific to MS. It is primarily made by the neurologist after reviewing their patients' medical history, conducting a physical examination, and interpreting a series of tests all of which assist in the diagnosis:

- Magnetic Resonance Imaging (MRI). This involves a scan of the brain and/or spinal cord.
- Lumbar Puncture (LP), which involves taking a sample of fluid from around the spinal cord for analysis.



Types of MS

There are different types of MS, each with its own characteristics, but each as unpredictable as the other. It might not be clear which type of MS someone has when they are first diagnosed. However, by noting changes over time, neurologists should be able to clarify which type someone has. It is important to remember that not everyone's MS is the same.

Relapsing remitting MS

This is when you have a relapse (flare up of symptoms), followed by periods of remission (recovery). Relapses are unpredictable; they can last for days, weeks or months and vary from mild to severe. These may be with new symptoms or a recurrence or worsening of previous symptoms. During remissions symptoms can disappear completely or sometimes people only make a partial recovery. Approximately 85 % of people are diagnosed with relapsing remitting multiple sclerosis.

Secondary progressive MS

People who have relapsing-remitting MS may later develop secondary progressive MS. This is when their condition becomes steadily worse, and their disability progresses for a period of six months or more whether they continue to have relapses or not. However early use of Disease Modifying therapies (DMT's) can slow down progression of the disease.

Primary progressive MS

This is where symptoms steadily worsen, resulting in continued progression of disability. They do not have distinct relapses and remissions. Approximately 10 -15% of people will be diagnosed with this type of MS.

Symptoms

MS is unpredictable. It varies from person to person and can result in a wide variety of symptoms, none of which are unique to MS. People may only experience a few symptoms.

They can range from mild to severe and from brief to persistent. Symptoms such as walking difficulties are obvious but others like pain or tiredness are less so. These are the hidden or silent symptoms and are more difficult, for those who are not familiar with MS, to understand.

Patient Information

The more common symptoms of MS include:

- Fatigue: an overwhelming sense of tiredness making physical and mental tasks difficult.
- Problems with walking, balance, or coordination
- Stiffness or spasms
- Visual problems: blurred or double vision
- Numbness or tingling in hands or feet.
- Dizziness
- Pain: mild to severe
- Loss of muscle strength
- Mood changes
- Cognitive problems
- Speech problems
- Continence issues

Current treatments available for MS

Specialists such as MS specialist nurses, Occupational Therapists, Physiotherapists, Continence advisors and Psychologists can help with mobility, coordination, continence and memory or concentration problems. People with MS should discuss their treatment options and concerns with appropriate healthcare professionals who can best identify the best Disease Modifying Therapies (DMT's) available.

Disease modifying therapies

These treatments are not a cure for MS, but the main benefits can be:

- Fewer relapses.
- Less severe relapses.
- Help reduce the build-up of disability which can occur if you do not recover completely from relapses.

Patient Information

DMD's work with various parts of the immune system to reduce the inflammation caused by MS to nerve cells in the brain and spinal cord. This helps reduce the number and severity of relapses. There is set criteria for eligibility for DMT, and they are suitable for certain types of MS. However, we now have treatments available for secondary progressive MS and primary progressive MS. The key to managing MS is to be diagnosed early and established on a DMT if appropriate. It is also important patients report new symptoms to the MS team promptly.

Inflammation does not always result in a relapse or visible symptoms. This silent activity may mean that although you are feeling well, there may still be changes caused by your MS that can only be seen on a brain scan. MRI scans show that taking a DMT can lead to fewer, smaller, or no new areas of damage (lesion) in the brain and spinal cord. Treating the visibly active relapses as well as the silently active aspects of MS is a new goal that is emerging in MS treatment. The goal is often called no evidence of disease activity (NEDA). The aim is to reach a point where you are free of visible relapses and invisible (changes seen only on brain scans) MS disease activity.

Research suggests that DMTs work best when they are started as soon as possible after diagnosis to reduce the build-up of damage to the nerve cells.

Most people will continue to have a background of symptoms. DMTs are not able to repair nerve damage already caused by MS so they cannot reverse existing symptoms.

Relapse management

People with relapsing-remitting MS may experience relapses which are sometimes treated with corticosteroids which are effective in hastening a recovery from a relapse. This can be given in either tablet form or sometimes by intravenous infusion, for which admission to hospital, daily, is required.

It is important to realise that new symptoms may not be due to a relapse or even MS.

Patient Information

Useful contacts

If you have any more questions or would like further information, please contact:

MS Specialist Nurses (University Hospitals Coventry and Warwickshire NHS Trust)

024 7696 5128

Email: uhcw.msteam@nhs.net

MS Society UK

372 Edgware Road

London, NW2 6ND

020 8438 0700

www.mssociety.co.uk

National MS Helpline

Freephone 0808 800 8000 (Monday to Friday, 9.00am-9.00pm)

Useful websites

www.mstrust.org.uk

www.msdecisions.org.uk

www.carersuk.org

www.citizensadvice.org.uk

<http://www.scope.org.uk/dial>

www.motability.co.uk

disabilityrightsuk.org

<https://shift.ms>

Patient Information

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