



MULTIPLE SCLEROSIS

What is Multiple Sclerosis?

Multiple Sclerosis (MS) is a chronic neurological disorder that affects the central nervous system (brain and spinal cord). MS is a condition in which patches of inflammation occur in parts of the brain and/or spinal cord. This can cause damage to the brain or the spinal cord and cause various symptoms. Many thousands of nerve fibres transmit tiny electrical messages (impulses) between different parts of your brain and spinal cord. Each nerve fibre in the brain and spinal cord is surrounded by a protective sheath made from a substance called myelin. The myelin sheath acts like the insulation around an electrical wire. It is needed for the electrical impulses to travel correctly along your nerve fibres.

Nerves are made up from many nerve fibres. Nerves come out of your brain and spinal cord and take messages to and from your muscles, skin, body organs and tissues. Nerve cells communicate by sending electrical signals called action potentials down long fibres called axons which are wrapped in myelin. Damage to the myelin results in impaired nerve signalling. In MS inflammation around the myelin sheath stops the affected nerve fibres from working properly and symptoms develop. When the inflammation clears, the myelin sheath may heal and repair and nerve fibres start to work again. However, the inflammation, or repeated bouts of inflammation, can leave a small scar (sclerosis) which can permanently damage nerve fibres. In a typical person with MS, many (multiple) small areas of scarring develop in the brain and spinal cord. These scars may also be called plaques. The name multiple sclerosis refers to scars (scleroses- plaques or lesions) particularly in the white matter of the brain and spinal cord. Multiple Sclerosis mainly affects adults between the ages of 20 and 50. It is more common in women than in men.

What causes it?

The cause of the condition is not known but it is thought that environmental, viral and genetic factors play a role. It is also thought that Multiple Sclerosis is an autoimmune disorder- one in which the body's immune system launches a defensive attack against its own tissues.

What are the symptoms?

MS causes a wide variety of symptoms and these may be variable and unpredictable. No two people have exactly the same symptoms and each person's symptoms can change in type and the intensity of symptoms over time. The symptoms may worsen gradually over time but usually the symptoms come and go at various times. Periods when the symptoms worsen are called relapses and periods when the symptoms improve or even disappear are called remissions.

The main symptoms of MS are:

- Visual disturbances which may include eye pain, distortion or loss of vision in one eye, impairment of colour perception.

- Loss of sensation, numbness
- Difficulty walking or performing tasks that require co-ordination
- Fatigue (extreme tiredness) and /or weakness. This tiredness is more than the tiredness you would expect after exercising or exertion. This fatigue can even affect your balance and concentration.
- Pain which may be of two types-neuropathic, which may cause a burning sensation or increased sensitivity over parts of the skin-musculoskeletal, caused by muscle spasms or spasticity
- Loss of bowel or bladder control.
- Hearing loss
- Tremor
- Breathing problems
- Mood changes e.g. depression are common in MS

Some symptoms may develop later in the course of the disease when some of the above symptoms become permanent. They may include contractures, urine infections, 'thinning' of your bones (osteoporosis), muscle wasting and reduced mobility.

How is it diagnosed?

Almost all of the MS symptoms can occur with many other conditions. It is often difficult to be sure if a first episode of symptoms (a first relapse) is due to MS. For example, you may have an episode of numbness in a leg, or blurring of vision for a few weeks, which then goes. It may have been the first relapse of MS or just a one-off symptom that was not related to MS. So usually confirming a diagnosis is often not made until two or more relapses have occurred.

In addition to a complete medical history and physical examination, including a detailed neurological examination, your doctor may order blood tests, an MRI scan of the brain and/ or spinal cord to look for the characteristic patches (scars) of MS and may perform a lumbar puncture of the spinal fluid to analyse it for proteins associated with the disease.

How can Multiple Sclerosis affect my health?

Multiple Sclerosis is a progressive disease for which no cure has yet been found. Although there are effective treatments available to manage the disease course, some people's MS will worsen in spite of everything they and their doctor do to try and prevent it.

Although MS is progressive, the rate of progression will vary from one person to another.

In some instances MS may affect how you perform your day to day activities. If possible find devices that will assist you to perform your activities. Most people with MS will be able to continue to walk and function at their work for many years after their diagnosis. The majority of people diagnosed with MS will not need to use a wheelchair on a regular basis. However, some people with MS do become disabled over time and a minority become severely disabled. Mood changes e.g. depression are common in MS. Get support to assist you with coping with these mood changes.

Make sure you look after yourself well. Try to avoid developing osteoporosis by trying to be as active as possible and exercise. Prevent pressure sores from sitting for too long periods of time.

Treatment

Although there is no cure for MS, there are effective treatments available that may slow its progression, treat flare ups and ease the symptoms of MS.

- Medicines that help to reduce the disease activity and progression. These are medicines known as immunomodulating agents. They may include interferon beta, glatiramer, teriflunomide etc.
- Medicines that treat exacerbations and manage inflammation: Corticosteroids
- Medicines that manage the symptoms: Muscle relaxants e.g. baclofen for spasms; bladder control e.g. oxybutinin, imipramine; pain e.g. amitriptyline.

Your role in managing this condition

Managing MS is an ongoing process. You can be healthy in spite of having MS. Taking care of yourself is key to managing the challenges of MS.

- Stay emotionally positive. Get support when you need it.
- Stay as mobile as possible. Exercise or do physiotherapy.
- Make sure you understand your condition and its possible effects on your body.
- Learn to recognise the signs and symptoms of a flare up and know what to do when you have a flare up.
- Keep open communication channels with your doctor.
- Take your medication for MS exactly as prescribed by your doctor.

Disclaimer

The reader should always consult a doctor if they believe they may be suffering from this medical condition. The information contained herein is intended to assist understanding and should not take the place of your doctor's advice or instructions. Whilst every effort has been made to ensure the accuracy of the information contained herein, Universal Care does not accept responsibility for any errors or omissions or their consequences, and shall not be liable for any damages suffered arising out of the use of this information.

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