

# AN OVERVIEW OF MS



## What is Multiple Sclerosis and what causes it?

Multiple Sclerosis (MS) is a long-term disease of the Central Nervous System (CNS). It is considered the most common neurological condition affecting young Australian adults. The cause is not yet known but it is thought that genetic and environmental factors that can affect the immune system are involved.

White blood cells (part of our immune system response) move from the bloodstream into the fluid that circulates and nourishes the brain and spinal cord.

These cells, actively attack and damage the protective covering over the nerves (myelin), resulting in the development of scar tissue/sclerotic patches (or plaques). In MS, the myelin becomes damaged in multiple locations. This process is known as demyelination.

As the nerves become more scarred, electrical impulses are no longer able to travel along them, causing the symptoms of MS.

MS is progressive, unpredictable and often varies in its severity from one person to another. There is no cure for MS, but current treatments are able to alter the course of the disease by reducing the frequency and severity of relapses. Each person's journey with MS is different, so it is important not to compare your journey with others.

## Symptoms

A person with MS may experience one or several symptoms depending on which part of the CNS is affected. Symptoms always vary from person to person. Some may include:

- extreme fatigue
- heat sensitivity
- muscle weakness
- balance
- co-ordination difficulties
- sensory changes
- visual problems
- bladder problems
- cognitive changes

## **Who does MS affect**

- MS is usually diagnosed between 20 and 40 years of age. Onset of MS is rare before the age of 12 or after the age of 65.
- An estimated 18 000 people have MS in Australia, including around 2,000 South Australians.
- It affects more women than men.
- It is more common in Caucasians (white races) than in other racial groups.
- It is more common in temperate regions of the world, i.e. the further one lives from the equator the higher the prevalence of MS.
- About 15% of people with MS also know of someone in their family with MS. People can only inherit a predisposition to the disease, not MS itself.

## **Diagnosis**

There is not one diagnostic test that is specific to MS. The main diagnostic criteria utilised by neurologists include a neurological exam and magnetic resonance imaging (MRI). Lumbar puncture and sometimes, a visual evoked potential may also be used to diagnose the condition.

## **Types of MS**

### **Relapsing-Remitting MS (RRMS)**

This is the most common form of MS. In this form, exacerbations or relapses occur randomly, and can last for days or months. There is usually a partial or total recovery between these relapses where there are fewer or no symptoms at all. With this type of MS, the disease may be inactive for months or even years. Approximately 80% of people with MS have this form.

### **Secondary Progressive MS**

Secondary Progressive MS is defined as a progression of the disease from a diagnosis initially of relapsing remitting MS. There is a general increase in the level of disability. Relapses may or may not occur.

### **Primary Progressive MS**

This form of MS is characterised by a lack of distinct relapses, but rather a slow onset and steadily worsening symptoms. Around 10% of people with MS have this form.

### **Relapsing Progressive MS**

This is considered a rare form of MS. About 5% of people with MS have this type which is characterised by a gradual progression of disability from the onset of the disease, accompanied by one or more relapses.

## **Exercise, Physical Fitness and Leisure**

Exercise is important for people with MS to develop endurance, to strengthen muscles and to assist in maintaining mobility, flexibility and co-ordination. Physiotherapy helps to maintain function and mobility, increase fitness and also aids in managing the physical symptoms of MS. Overheating and unnecessary fatigue can cause temporary weakness in some people with MS when exercising, so developing an exercise plan in consultation with an MS physiotherapist is important.

Leisure plays an essential role in creating a positive attitude and sense of well-being. It can help increase self-confidence, motivation and independence. Coping with the unpredictability of MS, its symptoms and effects can cause considerable stress. Yoga and meditation are popular forms of leisure activities for people with MS and provide great stress management techniques.

## **Heat Sensitivity**

Many people with MS find that heat negatively impacts upon their ability to function. This can be caused by rises in body temperature than can occur in hot weather, after hot showers or as a result of a feverish illness. MS

symptoms are usually temporarily worsened. Heat sensitivity can be managed by forward-planning and the use of air-conditioning. People with MS who are sensitive to heat should avoid working in high ambient temperatures, especially in humid conditions.

## **Diet**

More research is required to understand the impact of diet on MS, as objective scientific studies have been unable to prove that diet therapies significantly change the course of MS.

However, like everyone, people with MS should have well-balanced diets, low in fat, low in cholesterol and high in fibre, such as that recommended by the National Heart Foundation. People with MS who are physically less active should reduce their intake of fats to avoid putting on weight which impacts upon mobility and can increase body heat due to fat metabolism.

## **Social, Emotional and Family**

The diagnosis of MS can be difficult for people to adjust to and accept. It not only affects the person diagnosed, but everyone around them, including family, parents, friends, work

colleagues and so on. It is quite 'normal' for others to feel angry, overprotective or frustrated at the uncertainty of the situation too.

Many issues need to be dealt with, so it is important for all concerned to communicate freely and share their feelings, fears and concerns. Counsellors are helpful in helping to deal with these emotions.

### **Employment**

The qualifications of a person with MS should determine their future as an income earner, rather than their diagnosis. Many people with MS remain in employment until normal retirement. Sometimes it may be necessary to negotiate changes in job tasks or the work environment. Legislation exists to protect people with particular needs in the workplace. 'Multiple Solutions', linked to the MS Society are experts in providing support in this area.

### **Research**

Scientists and medical researchers across the world continue with their efforts to discover the cause and outcomes of MS and why some people are susceptible and others are not. The MS Society of SA & NT contributes to the millions of dollars spent each year, world- wide, on

research into the cause and treatment of MS.

### **MS Society Services**

The services staff at the MS Society are experienced health professionals in all facets of therapy-based support and information and will assist you with your queries. For more information regarding registering and receiving services, please contact the MS Society.

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#### **MS Society Head Office:**

108-110 Reservoir Road,  
Modbury SA 5092  
Phone: 8396 0044 Fax: 8396 0184  
Website: [www.ms.asn.au](http://www.ms.asn.au)  
Email: [info@ms.asn.au](mailto:info@ms.asn.au)