

Third edition  
December 2008

# **What is MS?**

Information on  
diagnosis, symptoms,  
treatment, management  
and sources of support

# **MS**

**Multiple Sclerosis Society**

**This booklet is available  
in large print and audio  
CD and tape. For either  
of these formats, contact  
the MS Society information  
team: 020 8438 0799  
(weekdays 9am-4pm) or  
infoteam@mssociety.org.uk**

For information in Welsh, contact MS Society Cymru: 029 2078 6676  
or mscymru@mssociety.org.uk

Written information is also available in the following languages:  
Bengali, Farsi, Gujarati, Hindi, Polish, Punjabi, Spanish, Turkish  
and Urdu.

For copies, go to [www.mssociety.org.uk](http://www.mssociety.org.uk), or contact (in English) the  
MS Society Information Team: 020 8438 0799 (weekdays 9am-4pm)  
or mscymru@mssociety.org.uk

আমাদের [বাংলায়] তথ্য আছে। ইনফরমেশন টিমকে ইমেইল করুন বা (ইংরেজিতে) কল করুন :  
infoteam@mssociety.org.uk 020 8438 0799

ما اطلاعاتی به زبان فارسی در اختیار داریم. لطفاً به گروه اطلاع رسانی در شماره  
020 8438 0799 تلفن کنید (به زبان انگلیسی) یا برای آنها به نشانی  
infoteam@mssociety.org.uk ایمیل بفرستید.

“અમે ગુજરાતી ભાષામાં માહિતી ધરાવીએ છીએ. ઇન્ફોર્મેશન ટીમને (ઇંગ્લીશમાં) ઇમેઇલ  
અથવા ફોન કરો: infoteam@mssociety.org.uk 020 8438 0799”

हमारे पास हिंदी में जानकारी है। इन्फॉर्मेशन टीम को ई-मेल या फोन करें (अंग्रेजी में):  
infoteam@mssociety.org.uk 020 8438 0799

Posiadamy informacje w języku polskim. Wyślij wiadomość  
e-mail lub zadzwoń (komunikacja w j. angielskim) do działu  
informacyjnego: infoteam@mssociety.org.uk 020 8438 0799

ਸਾਡੇ ਕੋਲ ਪੰਜਾਬੀ ਵਿੱਚ ਜਾਣਕਾਰੀ ਹੈ। ਜਾਣਕਾਰੀ ਟੀਮ ਨੂੰ ਈ-ਮੇਲ ਜਾਂ ਫੋਨ ਕਰੋ (ਅੰਗਰੇਜ਼ੀ ਵਿੱਚ):  
infoteam@mssociety.org.uk 020 8438 0799

Tenemos información en español. Envíe un email o llame (en inglés)  
al Equipo de Información: infoteam@mssociety.org.uk 020 8438 0799

Türkçe bilgimiz vardır. Bilgi Ekibine infoteam@mssociety.org.uk  
adresinden e-posta gönderin veya 020 8438 0799 numaralı  
tefondan arayın (İngilizce).

ہمارے پاس اردو میں معلومات موجود ہیں۔ معلوماتی ٹیم کو (انگریزی میں) ای میل  
یا فون کریں: infoteam@mssociety.org.uk، 020 8438 0799.

Multiple sclerosis (MS) is a condition of the central nervous system. It is the most common disabling neurological disorder among young adults and affects around 100,000 people in the UK. MS is most often diagnosed in people between the ages of 20 and 40 – though it can be earlier or later. Although it's rare, children can develop MS. Women are around two to three times as likely as men to develop MS.<sup>1,2</sup> Once diagnosed, MS stays with the person for life, but treatments and specialist care can help people to manage many symptoms well.



Where this symbol appears in the booklet, the MS Society or another organisation can provide more information on a particular subject – see 'Sources of support and further information'.

## Contents

- 2 What is MS?**
- 4 How is MS diagnosed?**
- 5 What causes MS?**
- 5 Different types of MS**
- 7 Symptoms**
- 7 Treatments**
- 9 Living with MS**
- 11 Family and friends**
- 13 Health and social care services**
- 13 Disability rights**
- 14 Work, training and financial assistance**
- 15 Aids to mobility and daily living**
- 16 Holidays**
- 16 Sources of support and further information**

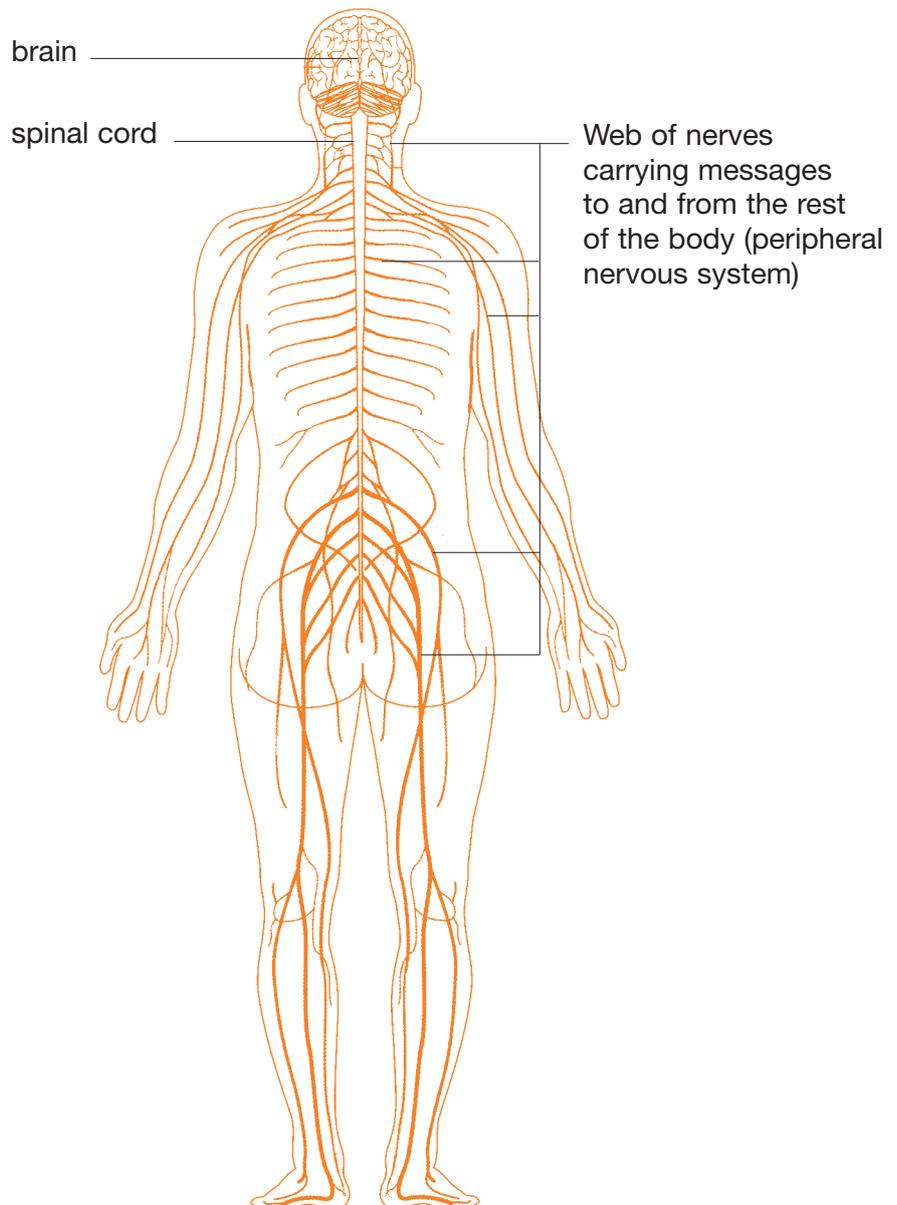
# What is MS?

## What are the functions of the central nervous system?

To understand what happens in MS, it is helpful to understand the functions of the central nervous system. The central nervous system is essentially made up of the brain and spinal cord. In addition, there are several nerves attached directly to the brain, called the 'cranial nerves'. These include the 'optic nerves' which connect the eyes to the brain.

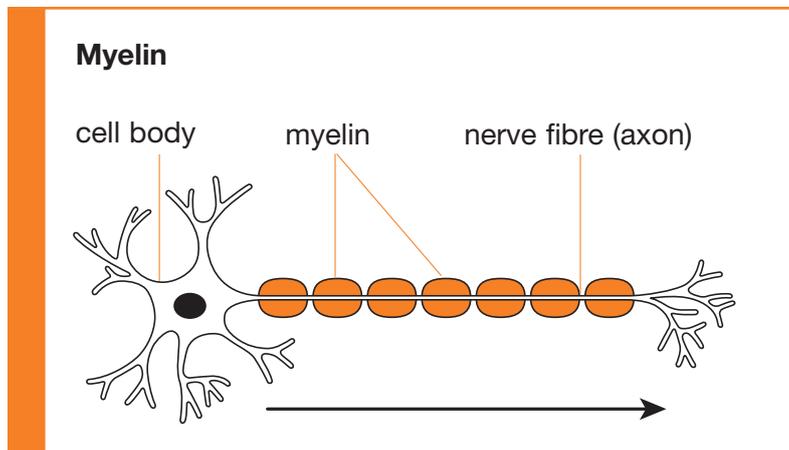
The brain controls bodily activities, such as movement and thought, and the spinal cord is the central message pathway. Messages are sent from the brain to all parts of the body, controlling both conscious and unconscious actions.

## The nervous system

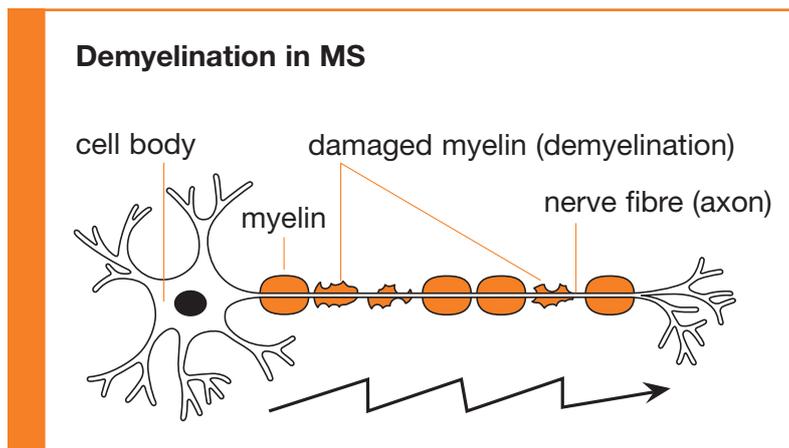


## What happens in MS?

Surrounding and protecting the nerve fibres of the central nervous system is a fatty substance called myelin, which helps messages travel quickly and smoothly through the brain and spinal cord.



MS is an autoimmune condition. This means that the immune system, which normally helps to fight off infections, mistakes its own tissue for a foreign body, such as bacteria, and attacks it. In MS, the immune system attacks the myelin surrounding the nerve fibres. This damages the myelin and strips it off the nerve fibres, either partially or completely, leaving scars (also known as lesions, plaques or sclerosis). Sometimes the nerve fibres themselves are also damaged.<sup>3</sup> The damage disrupts messages to and from the brain and spinal cord. The messages can slow down, become distorted, pass from one nerve fibre to another (short circuiting), or not get through at all.



The easiest way to understand what happens in MS is to think of the nervous system as an electrical circuit, with the brain and spinal cord acting as the power source and the rest of the body being the lights, computers, TVs, and so on. Nerves are like electric cables linking the appliances together and the myelin is the plastic insulation around these cables. If the insulation gets damaged, the appliances will become faulty or temperamental and there may be a short circuit. As the central nervous system links all bodily activities, many different symptoms can appear in MS. The specific symptoms that appear depend upon which part of the central nervous system is affected and the function of the damaged nerve.

# How is MS diagnosed?

Due to its complexity and variety of symptoms, MS is not easy to diagnose. There is no single diagnostic test and other conditions with similar symptoms may need to be ruled out before a final diagnosis can be made.

A neurologist should always be involved in the diagnosis of MS. Traditionally, it was only possible to confirm MS when there had been at least two occurrences of MS symptoms, each involving different areas of the central nervous system. However, it is now possible to determine if a person has MS after they have had only one occurrence of neurological symptoms, so long as there is evidence of new lesions on an MRI scan at least one month later.<sup>4, 5</sup>

The following are the most commonly used tests and procedures:

- **Neurological examination and history**

The neurologist will ask lots of questions about past symptoms and problems, which may help explain current symptoms. They will then do a physical examination to check for abnormalities in nerve pathways involved in movement, reflexes, sensation or vision. This involves looking for changes in vision, eye movements, coordination of legs or hands, balance, sensation, speech or reflexes, as well as any signs of weakness. Although the neurologist may strongly suspect MS at this stage, a diagnosis may not be possible until there have been further investigations. The whole picture – symptoms, signs and test results – would need to meet the criteria for diagnosing MS.

- **MRI – magnetic resonance imaging**

The MRI scanner is a large piece of equipment that uses strong magnetic fields to create a detailed image of the brain and spinal cord. It is very accurate and can pinpoint the exact location and size of myelin damage. To get an image of their brain and spinal cord, a person lies in the tunnel-like centre of the MRI scanner. The process usually takes between 10 and 30 minutes and it is painless. MRI scans show changes in the central nervous system in over 95 per cent of people with MS.

- **Evoked potentials**

This involves testing the time it takes the brain to receive messages. Small electrodes are placed on the head to monitor how brain waves respond to what is seen or heard. If myelin damage has occurred, messages and responses will be slower or weaker. This procedure is also painless.

- **Lumbar puncture**

Sometimes called a spinal tap, this is carried out under local anaesthetic and involves a needle being inserted into the space around the spinal cord in the lower back (a procedure similar to an epidural injection). A small sample of the fluid that flows around the brain and spinal cord is taken and tested. Most people with MS have abnormal proteins in this fluid, showing that the immune system has been at work in the central nervous system. A lumbar puncture is not carried out as often as it used to be and tends only to be used where a diagnosis of MS has not been confirmed by other tests. People commonly report headaches following a lumbar puncture and a neurologist can advise on how best to manage this side effect.

- **Other tests**

To rule out conditions that mimic MS, other tests may also be carried out, such as blood tests and inner ear tests to check balance.

## What causes MS?

The causes of MS are unknown. Research suggests that a combination of genetic and environmental factors may play a role in its development.

### Genes and family history

MS is not directly inherited and, unlike some conditions, there is no single gene that causes it. It seems likely that a combination of genes make some people more susceptible to developing MS; however, these genes are also common in the general population. So genes are only part of the story and other factors are also involved in MS. While MS can occur more than once in a family, it is more likely this will not happen. Indeed, there is only around a two per cent chance of a child developing MS when a parent is affected.<sup>3</sup> 

### Environmental factors

MS is more common in areas further away from the equator. It is virtually unheard of in places like Malaysia or Ecuador, but relatively common in Britain, North America, Canada, Scandinavia, southern Australia and New Zealand.<sup>6,7</sup> It is not clear why, but it is possible that something in the environment, perhaps bacteria or a virus, plays a role.<sup>7</sup> No single virus has been identified as definitely contributing to MS, but there is growing evidence that a common childhood virus, such as Epstein Barr virus, may act as a trigger. This theory remains unproven and many people who do not have MS would have also been exposed to these viruses, so just like genes, they are unlikely to be the whole story.

There is also a growing amount of research that suggests vitamin D could be a factor. We get most of our vitamin D from exposure to sunlight. Low levels of vitamin D have been linked to higher numbers of people developing many different conditions, including MS. Vitamin D may be one of many factors and research into this area continues.<sup>8,9</sup>

## Different types of MS

There are three broad types of MS, each with its own characteristics. Regardless of the type, some people may be only mildly affected throughout their lives, while for others the effects may become quickly noticeable. Most people with MS experience something in between these extremes. It is not always clear what type of MS someone has, particularly when newly diagnosed, and regardless of the type, health professionals will base symptom management on individual needs.

- **Relapsing remitting MS**

Most people (around 85 per cent) are first diagnosed with relapsing remitting MS.<sup>7</sup> This means they experience a relapse or flare-up of symptoms (also known as an attack or exacerbation) followed by remission (a period of recovery). A relapse is defined by the appearance

of new symptoms, or the return of old symptoms, for a period of 24 hours or more – in the absence of a change in core body temperature or infection. Relapses occur when inflammatory cells attack the myelin of specific nerve fibres, interfering with the job the nerve normally does. For example, inflammation in the optic nerve may result in visual problems. Relapses usually take a few days to develop and can last for days, weeks (most commonly) or months, varying from mild to severe. Remission occurs when the inflammation subsides and symptoms settle down. In the early stages of relapsing remitting MS, symptoms can disappear completely during remissions. However, after several relapses there may be more residual damage to the myelin and nerve fibres, resulting in only a partial recovery. 

### **‘Benign’ MS?**

‘Benign’ MS can only be diagnosed after having MS for many years. If, after 10 to 20 years, someone’s MS hasn’t worsened and they have very little or no disability, they might then be said to have ‘benign’ MS. It is difficult to give exact figures, but probably between 10 and 30 per cent of people with MS fit this broad description and have had many years without major disability.

But using the word ‘benign’ can be misleading. ‘Benign’ MS doesn’t mean that someone’s condition has been completely problem-free, and a relapse can occur after many years of inactive MS. Unfortunately, it’s still difficult to predict future MS symptoms, even by looking at the symptoms someone has already had.

### **Secondary progressive MS**

Most people who start out with relapsing remitting MS later develop a form that is known as secondary progressive MS.<sup>7</sup> In secondary progressive MS, symptoms do not go away completely after a relapse and there is a steady increase in disability. To determine if a person has moved on to secondary progressive MS, they must have shown a continued deterioration for at least six months, whether they continue to have relapses or not. Around 65 per cent of people with relapsing remitting MS will have developed secondary progressive MS within 15 years of being diagnosed.<sup>10</sup>

### **Primary progressive MS**

Primary progressive MS is a less common form of MS – affecting around 15 per cent of people diagnosed with MS.<sup>10, 11</sup> It tends to be diagnosed in older people, usually in their forties or later. From the outset, those with primary progressive MS experience steadily worsening symptoms and an increase in disability. Symptoms may level off at any time, or may continue to worsen. Unlike relapsing remitting MS, men are just as likely to develop this type as women.<sup>12</sup>

# 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. Many people experience only a few symptoms and it is unlikely that anyone will develop them all. People can have different symptoms at different times and, although some are very common, there is no typical pattern that applies to everyone. Some of the common symptoms are:

- fatigue – an overwhelming sense of tiredness making physical or mental activity difficult and, for some, impossible
- balance problems and vertigo – walking difficulties, problems with coordination
- visual problems – blurred or double vision, temporary loss of sight in one eye or both
- numbness or tingling – commonly in the hands or feet
- pain – sometimes mild, sometimes severe
- loss of muscle strength and dexterity
- stiffness and spasms – tightening or rigidity in particular muscle groups
- anxiety, depression or mood swings
- cognitive problems – difficulty with memory and concentration
- speech problems – slurring, slowing of speech, or changes in pitch or tone
- incontinence – a lack of control over bladder or bowel functions
- sexual problems – lack of libido, erectile difficulties

MS symptoms range from mild to severe, from brief to persistent. Some symptoms, such as walking difficulties, are obvious to other people. Others, such as pain or fatigue, are not and are often referred to as hidden, invisible or silent symptoms. Hidden symptoms may be more difficult to understand, for those unfamiliar with MS. The MS Society can provide further information on any MS related symptoms. 

# Treatments

There are different ways to tackle the problems caused by MS. Disease modifying drugs can help to reduce the frequency and severity of relapses, while many MS symptoms can be effectively managed using a variety of treatments.

Specialists, such as occupational therapists, physiotherapists, continence advisers 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 health care professionals who can help identify the best therapies available. GPs can also make suitable referrals. The National Institute for Health and Clinical Excellence (NICE) has produced a detailed guideline on best clinical practice for all aspects of MS health care.<sup>13</sup> This guideline gives people affected by MS a clearer idea of what treatment to expect from the NHS in England and Wales.

March 2005 saw the launch of the *National Service Framework (NSF) for Long-term Conditions*:<sup>14</sup> a ten-year programme to improve health and social care services in England for people with conditions such as MS. Over time, the NSF should produce a more consistent service across England.

The *Better Health, Better Care Action Plan* is the Scottish Government's blueprint for improving health in Scotland, and the *Self-Management Strategy for Long Term Conditions in Scotland* and *Neurological Health Services Clinical Standards* give added commitment to change.<sup>15</sup> In Wales, the *Designed for Life* strategy is a driving force for change in health services.<sup>16</sup> Several initiatives including *A Healthier Future* set out similar strategies for improvement in Northern Ireland.<sup>17</sup>

## **Disease modifying drugs**

In recent years, drugs have been developed that can affect or modify the course of MS – disease modifying drugs. They are thought to suppress the immune response in MS against myelin. Although not a cure for MS, they can act to reduce the number and severity of MS attacks.

The most commonly used disease modifying drugs are beta interferon (four drugs, with trade names Avonex, Betaferon, Extavia and Rebif) and glatiramer acetate (trade name Copaxone).

Beta interferon and glatiramer acetate do not work for everyone, but research suggests that on average they reduce the frequency of attacks in relapsing remitting MS by about 30 per cent (over two years). Clinical trials have also shown some benefit for people with secondary progressive MS, but only where relapses are the cause of increasing disability. Unfortunately, research to date has not shown any benefits from these drugs for people with primary progressive MS.<sup>18</sup>

Across the UK, people with MS who meet the criteria for treatment (broadly speaking, two relapses in the last two years and able to walk) are eligible for these drugs on the NHS.

More recently, the disease modifying drug natalizumab (trade name Tysabri), has been licensed for MS. As well as reducing the number of relapses, some people taking natalizumab in a two-year clinical trial developed less disability than expected.<sup>19</sup>

NICE, the organisation that assesses the benefits of all new treatments on the NHS, says natalizumab should be available for people with “rapidly evolving, severe relapsing remitting MS” – those who have two or more disabling relapses a year and where MRI scans show evidence of new MS damage.<sup>20</sup>

An MS nurse or neurologist can provide more information about who is eligible for all these drugs, and the potential benefits and possible side effects. There is information, about these and other emerging drugs, in the MS Society booklet *Disease modifying drugs* and on our website. 

## **Steroids for relapses**

When a person experiences a relapse, it may be appropriate to consider a course of steroids to help speed up recovery.<sup>21</sup>

Although they do not alter the long-term course of the disease, steroids can reduce inflammation in the central nervous system.<sup>22</sup> However, doctors tend only to recommend steroids when relapses are disabling, painful or distressing. They are administered intravenously (through a drip into the bloodstream) or orally (usually as a tablet) as soon as possible after the onset of the relapse.<sup>13</sup>

The treatment period usually lasts between three and five days. The majority of UK neurologists try to limit the number of courses of steroids prescribed in any one year.<sup>22</sup>

There is more information about steroids and treating relapses in the free MS Society publications *Managing a relapse* and *What is relapsing remitting MS?*. 

### **Complementary and alternative approaches to MS treatment**

Some people feel better when taking complementary and alternative therapies. Indeed, the NICE guideline for MS suggests that there may be some benefit from reflexology, massage, magnetic field therapy, neural therapy, yoga, t'ai chi, fish oils and the combination of complementary therapies (known as multi-modal therapy).<sup>13</sup>

However, there is little scientific evidence available regarding the effectiveness of most complementary therapies. While some may help to relieve symptoms, people should be cautious of any that make big promises, claim to be scientifically proven, or to cure MS. Such treatments may be a waste of time or money, and some could be potentially dangerous. It is strongly recommended that people consult a health care professional before trying any complementary therapy (as they would for a 'traditional' prescription) and that accredited therapists are used. More information can be found in the MS Society publication, *Complementary and alternative medicine*. 

## **Living with MS**

Having MS means living with uncertainty and adapting to changing situations. Some people feel relief after diagnosis because they finally understand their symptoms and have a name for their condition. However, shock, fear, grief or anger are also perfectly natural reactions and it can often take several months before these feelings settle down. Adapting to life with MS can take some time, and for many people involves compromise and adaptation, but with a generally positive attitude and appropriate health and social care, most people manage their condition well. Many people with MS, their family and friends find the MS Society booklet *Living with the effects of MS* useful. 

### **Information**

Getting up-to-date, accurate and unbiased information can help everyone make informed decisions and communicate effectively with care professionals. MS Society publications are based on scientific and medical evidence and cover many issues relating to MS. Download from our website or contact the Information Team. 

The internet is a rich source of information and support, but there is also a great deal of misinformation available. The MS Society or a care professional can help if someone has concerns about the accuracy of information downloaded.

The UK Department of Health is introducing schemes to improve access to appropriate information in England. These include the Information Standard 'kite mark' for reliable information, and 'information prescriptions' so that your health care team can pass on the information you need quickly and easily. *What is MS?* and other Society titles, including our MS Essentials range, have been awarded the Information Standard (the logo is on the back cover).

## Self management

Many people with MS say that they get more out of life by managing areas of their own health wherever they can – their diet and exercise, for example. Taking this self management a step further, some people may find it helpful to attend courses run by the Expert Patients Programme for people with long-term conditions. They help people in England and Wales manage their symptoms and emotional changes and also help people acquire the skills needed to continue with daily activities. The Expert Patients Programme has a website listing courses in your area: [www.expertpatients.co.uk](http://www.expertpatients.co.uk)

The MS Society Scotland runs self-management courses north of the border. 

The MS Society also works together with health care professionals to run local information sessions for people affected by MS. These courses cover facts about MS, as well as information on fatigue, exercise, diet and employment. For more information, contact a local branch of the MS Society or an MS specialist nurse.

## Healthy eating

People with MS can benefit from the well-balanced diet generally recommended for the population as a whole. This normally means eating food low in saturated fats, plenty of fresh fruit, vegetables and fibre. Reducing saturated fats can be achieved by choosing lean cuts of meat, low fat dairy products and cutting down on foods such as cakes, chocolate and crisps.

Essential fatty acids found in polyunsaturated fats do seem to play a role in helping maintain a healthy nervous system.<sup>23</sup> These fatty acids are found in sunflower and soya oils, seeds (such as sunflower, linseed or sesame), green leafy vegetables, lentils and oily fish. Linoleic acid is a particular fatty acid described in the NICE guideline as a treatment which may help slow down the disabling effects of MS.<sup>13</sup>

Health professionals and researchers do not all agree that this is true, but there is no doubt that linoleic acid is a valuable part of a healthy diet. There is no need for supplements if diet is adequate.

Many diets are sold to people with MS. These tend to restrict or eliminate certain food groups, or require that certain supplements be taken. Such diets can be expensive and may even be dangerous if followed without close medical supervision. Overall, very little scientific evidence is available to support these 'MS diet' claims. So, before following a special diet, people with MS should consult an appropriate health care professional.

The MS Society booklet *Diet and Nutrition* has more information. 

MS should not prevent people enjoying alcohol. However, large quantities may make some symptoms feel temporarily worse, such as bladder, bowel, balance or speech difficulties.

## Appropriate exercise

Physical exercise benefits everyone. It is good for the body and mind, helps reduce blood pressure, assists weight control and reduces stress levels.

For people with MS, there can be additional benefits to taking regular, gentle exercise.<sup>24</sup> It helps strengthen bones and muscles and increases suppleness. This could make relapses less disabling and prevent long-term muscle wastage and postural problems.

Choosing an appropriate exercise option to suit individual needs is important. People should consider the severity and extent of the MS, and any other related symptoms. The person's age, personal preferences and temperament, as well as their attitude towards exercise and treatment, should be considered.

It is recommended that people with MS consult a health care professional before starting a new exercise regime, and during a relapse, when it may be necessary to reduce or stop exercising and rest.

The MS Society publication, *Exercise and physiotherapy* has more information. 

### **Environment**

People with MS can be more sensitive to heat and humidity as these may worsen symptoms temporarily. Using fans and air conditioning can create a more comfortable environment. Cooling vests can also help maintain a comfortable body temperature when other cooling devices are not available. People also find that wearing a hat in the sun, using a pocket fan and drinking iced drinks can help them keep cool.

### **Infections**

Infections can worsen MS symptoms, most often due to the increase in body temperature associated with fever. With this in mind, people with MS should be offered appropriate immunisations, such as flu, to reduce the risk of developing a serious infection.<sup>13</sup> There is good evidence that flu immunisations do not cause relapses.<sup>25</sup>

It is important to discuss vaccinations with a doctor early on when planning a trip abroad. Holiday vaccinations have not all been studied in relation to MS, but it is generally felt that if a person is going to an area where a serious infectious disease is prevalent, it would be better for the person to have the vaccination than to get the illness itself – which could have greater consequences. There are certain exceptions – for example live vaccines should be avoided in people whose immune system is compromised by medication or another condition. Our website, [www.mssociety.org.uk](http://www.mssociety.org.uk), has more information.

### **Counselling**

Talking to a counsellor after a diagnosis can help people come to terms with the condition. It may also be valuable when developing suitable coping strategies for new symptoms, or changing lifestyles if the MS progresses. It is best to discuss counselling options with a GP, nurse or neurologist. Unfortunately, counselling is rarely available through the NHS. The British Association for Counselling and Psychotherapy can recommend accredited practitioners. 

## **Family and friends**

At some point, a person diagnosed with MS may wish or need to tell a partner, family or friend. Sometimes, those close to someone with MS may find it difficult to cope with the uncertainty of the condition and may distance themselves. But sharing the experience of the condition can also strengthen friendships and deepen bonds. In a partnership where one person has MS, open communication is key to understanding each other's needs and adjusting to new roles as and when appropriate.

Living with someone affected by MS has unique challenges. Partners and family members should be encouraged to learn about the condition and, if possible, attend courses for families and carers. The MS Society publication *Living with the effects of MS* might be helpful. Contact the MS Society for more information about appropriate courses. 

### **Parenthood**

MS has no effect on fertility in men or women and having MS should not prevent anyone from having children. With or without MS, caring for babies and young children can be tiring, but many people with MS might also want to discuss ways to manage fatigue or mobility difficulties with their health care team.

With MS, pregnancy, birth and breastfeeding should be normal, although MS drug treatments may need adjustment. Research studies have shown there is an increased risk of a relapse in the first three months after birth, but this is balanced by a reduced risk during pregnancy. Overall, having a child does not alter the course of MS.<sup>26, 27</sup>

For more on parenthood, visit the MS Society *Pieces* website [www.mssociety.org.uk/pieces](http://www.mssociety.org.uk/pieces) or see the MS Society publication *Women's health – pregnancy, menstruation, contraception and menopause*. 

### **Relationships and sexuality**

MS can affect the experience of sex in different ways. If this happens, people can find it difficult to talk about changes in intimacy and their sexual needs. The organisation Relate offers counselling to people having relationship or sexual difficulties. The Sexual Dysfunction Association provides information and support to those affected by sexual dysfunction. For men who have problems getting an erection, the NICE guideline recommends the use of Sildenafil (also known as Viagra), which can be obtained through a GP. Trained staff are available to talk about these problems on the MS Helpline. The MS Society publication *Sex, intimacy and relationships* has more information. 

### **Support for family and carers**

The MS Society has a national programme for carers, which includes information, a carer's handbook, campaigns and research. Local MS Society branches can offer support to individual carers. In some areas, there are also carers' centres, which may include support and specialist groups for young carers. 

If a person with MS has a level of disability that makes them eligible for local authority social services, their carer also has a right to be assessed for their own support needs.

### **Respite care**

The MS Society has a respite care service for people severely affected by MS. This includes our own respite centres and a Preferred Provider scheme that recognises high quality care provision across the UK. You can find full details of this and other respite providers in our Respite Care Directory. Local MS Society branches can help advise on good local providers and, in some circumstances, offer financial assistance. Holiday weeks are also available for people with MS through the charity Vitalise. For more information on any of these services, contact the respite care team on 020 8438 0925 or visit [www.mssociety.org.uk/respite](http://www.mssociety.org.uk/respite)

# Health and social care services

## Health care services

The GP is responsible for managing day-to-day treatment and referrals to specialist help, such as MS nurses, neurologists, physiotherapists, occupational therapists, counsellors and continence advisers. The neurologist is responsible for diagnosis and prescribing treatments. MS nurses are an invaluable source of information, support and advice. People with MS should ask their GP, neurologist or the MS Society for details of their local MS nurse if they are not already in contact.

The number of specialist MS nurses has grown rapidly over the last few years and the MS Society is working to ensure this continues. The MS Society is also working across the UK to ensure that national initiatives such as the English *National Service Framework for Long-term Conditions* and the Scottish *Neurological Health Services Clinical Standards* – both of which set the standards of care for people with MS – are better implemented in health care services.

In England, the local Patient Advice and Liaison Service (PALS) can answer questions, problems or concerns (of a non-medical kind), from people with MS or people looking after them. The telephone number for PALS services is normally available from a doctor's surgery or hospital. In Wales, you should contact your local Community Health Council, and in Northern Ireland, the Patient and Client Council. In Scotland, contact your local Citizens Advice Bureau and ask for the Independent Advice and Support Service.

More information can be found in the MS Society publication, *A guide to health care services*. 

## Local authority social care services

Local authorities in England, Scotland and Wales (and Social Service Trusts in Northern Ireland) provide services for people with MS and carers who need help at home. Services may vary between areas and some may charge a fee.

People with a disability who need assistance have the right to a community care assessment of their needs. Carers are also entitled to an assessment of their particular needs. In both cases, a written report is provided, detailing what the local authority is able to provide. This may include adaptations to the home, support in the home and short breaks. If someone's needs change, they are entitled to a reassessment. More information can be found in the MS Society publication, *Getting the best from social care services* (and *Getting the best from social work in Scotland*). 

# Disability rights

The 1995 Disability Discrimination Act gives people with a disability certain rights to ensure they are not treated less favourably in three key areas: employment; the provision of goods, services and facilities; and the selling or letting of land or property. Since December 2005, everyone with MS is covered by the Act from the moment they are diagnosed.

The Disability Law Service provides free legal advice on possible breaches of the Act in employment and in the provision of goods, services and post-16 education. 

## Work, training and financial assistance

### Work

Many people with MS continue to work full-time for many years after diagnosis. Some adapt by working part-time or from home.

There is no legal requirement to inform an employer about a diagnosis of MS, unless there is a health and safety risk – or unless it is written into the contract. This is worth checking. But if a person with MS is asked directly by their employer whether they consider themselves disabled for the purposes of the Disability Discrimination Act, they do need to say 'yes'. This is because everyone diagnosed with MS is covered by the Act.

The Disability Discrimination Act protects people with MS from discrimination on the grounds of their disability, and employers are required to make reasonable adjustments to accommodate disability. These may include: flexible working hours; a shorter working week; regular breaks; physical accessibility, such as ramps or handrails; and voice recognition software. There's more information on employment in the MS Society publication, *Working with MS – information for employers and employees*. A new website ([www.yourworkhealth.com](http://www.yourworkhealth.com)) launches in April 2010, with support and advice on employment for anyone with a long-term condition, employers and care professionals. 

### Training and education

Having MS should not be a barrier to undertaking training courses or further education. Indeed, some people retrain and enjoy a new career better suited to living with MS. Selecting an appropriate course and the right educational or training establishment can make all the difference. Before committing to any particular study programme it is worth considering: financial support; student support services; course content (including practical or physical demands); flexibility of study programmes; accessibility and any special requirements. The organisation Skill can provide further advice. 

### Financial assistance

People with a disability arising from MS may qualify for certain government benefits. These include: Disability Living Allowance; Employment and Support Allowance; Carer's Allowance; and Tax Credits. Citizens Advice, the Benefit Enquiry Line or (in some areas) DIAL UK should be able to provide information about benefit entitlements. 

Benefits change and, even if people are already receiving them or have applied unsuccessfully before, it is worth regularly checking to see if entitlements have altered. MS support officers at local MS Society branches can advise on local support and sometimes offer financial assistance. For more information, see the MS Society publication, *Benefits and MS*. 

# Aids to mobility and daily living

## Driving

Drivers diagnosed with MS are legally obliged to inform the Driver and Vehicle Licensing Agency (DVLA) of their condition. Provided a doctor's report confirms that the person is fit to drive, their driving licence will either stay as it is or be renewable – every one, two or three years. This is in common with many medical conditions where situations may change over time. Alternatively, a licence may be given for an adapted vehicle. Drivers also have to inform DVLA if their condition changes. MS can vary from day to day, but DVLA needs to be informed only of 'significant or persisting changes', not the short-term effects of a relapse or a temporary symptom. It is still the driver's own responsibility to ensure that they are able to drive safely. Anyone unsure about the need to inform DVLA about a change can discuss it with their GP. Disclosure requirements of motor insurance policies should also be carefully checked and it may be advisable for drivers to tell their insurance company about the diagnosis to be sure they are still covered. When renewing a motor insurance policy, a person will be required to provide any information regarding a change in circumstances.

Most cars can be adapted, and specially designed cars for people with different needs are available. People who receive a disability benefit may be eligible for the Motability Scheme to buy or lease a car. [!\[\]\(3cf084882489248c66b41ee5d191c91e\_img.jpg\)](#)

In addition, a European blue card, which gives exemption from certain parking restrictions, may be available to someone with mobility problems. The Forum of Mobility Centres can provide further information. [!\[\]\(dfc59eaff22f8544bedb238cca58d143\_img.jpg\)](#)

## Public transport

The Disability Discrimination Act means transport companies should now be better equipped to help those with disabilities travel. There are a number of accessible transport schemes available. For more information, contact a local MS Society branch, the local council, the transport company itself, or visit the Disabled Persons Transport Advisory Committee (DPTAC) website. [!\[\]\(d4e92a70a184987c4cee61bbacf99330\_img.jpg\)](#)

## Wheelchairs, scooters and other equipment

People with MS may find specialist equipment can help them maintain their independence and improve their quality of life. Where necessary, GPs can refer people who require a wheelchair or other equipment to be assessed by an occupational therapist.

It is important to have this specialist assessment as there are many different wheelchairs and some can be provided through the NHS wheelchair service, voucher system or on permanent loan. Other equipment may also be provided free of charge based on the recommendation of an assessment. Where payment is required, many items for personal use are not liable to VAT and equipment suppliers should provide an exemption form, which needs to be signed by both the supplier and the person purchasing the equipment. The Motability Scheme also covers powered wheelchairs and scooters. People who receive a disability benefit can contact Motability to see if they are eligible. Good advice on equipment is essential and a number of organisations can help, including the Disabled Living Foundation. [!\[\]\(848edf3a971f9d4a6acd664a9b2a684c\_img.jpg\)](#)

# Holidays

Heat and humidity can make symptoms worse for many people with MS, so it can be worth considering the climate of a destination. Depending on how their MS affects them, people might want to check that accommodation is accessible and that facilities are appropriate before making a commitment. They might also want to arrange special facilities for the journey, such as wheelchairs at the airport or wheelchair spaces on trains. Other needs may also have to be considered, such as refrigerators for medication.

People with MS should inform their travel insurance company of their condition, as not doing so may render the policy invalid.

Tourism for All is a charity offering advice on planning holidays for those who are disabled. The Disabled Persons Transport Advisory Committee (DPTAC) offers advice for all kinds of travel on their website. 

Vaccinations? See page 11 'Infections' for more information.

## Sources of support and further information

### **MS Society publications**

The MS Society has publications on a wide variety of topics, including information for people just diagnosed, types of MS, managing relapses, and social care services. For a publications list and order form visit the website [www.mssociety.org.uk](http://www.mssociety.org.uk) or call 020 8438 0799 (weekdays 9am-4pm).

### **MS Society website and members' magazines**

Keep up to date with news relating to MS with the MS Society website [www.mssociety.org.uk](http://www.mssociety.org.uk) and UK members' magazine, *MS Matters*. Members in Northern Ireland, Scotland and Wales also receive national magazines. To join the MS Society, call 020 8438 0759 or go to [www.mssociety.org.uk](http://www.mssociety.org.uk)

### **MS Helpline**

The award-winning MS Helpline offers confidential emotional support and information to anyone affected by MS, including family, friends, carers, the newly diagnosed or those who have lived with the condition for many years. Information about MS is available in over 150 different languages by speaking to a Helpline worker via an interpreter. Call freephone **0808 800 8000** (weekdays 9am-9pm, except bank holidays) or email [helpline@mssociety.org.uk](mailto:helpline@mssociety.org.uk)

## **MS Society National Centre, Information Centre**

Based at the MS National Centre in London, the Information Centre is equipped for visitors to read or locate books and journals or view videos and DVDs. To request publications, research articles or other information about MS, visit [www.mssociety.org.uk/library](http://www.mssociety.org.uk/library) or call 020 8438 0799.

## **Local information centres**

There are MS Society local information and support centres in many locations around the country. These centres are staffed by volunteers who can help you with information about MS and services in your area. Call 020 8438 0799 for the details of your nearest centre.

## **Local branches**

The MS Society has a network of over 300 local branches across the UK. The branches – run by trained volunteers – provide information about MS and local services, a chance to meet others affected by MS and take part in a range of activities. For more information, check the MS Society website or call 020 8438 0944.

# **Other organisations A–Z**

## **Automobile Association Disability Helpline**

Offers support and information.

Freephone 0800 26 20 50  
[www.theaa.com](http://www.theaa.com)

## **AbilityNet**

Provides information and assessments for computer equipment. Can assist with installation, training and support.

Helpline 0800 269 545  
Textphone 01926 312 847  
[www.abilitynet.org.uk](http://www.abilitynet.org.uk)

## **Advisory, Conciliation and Arbitration Service**

Employment relations experts can advise on good practice and deal with individual cases.

Brandon House  
180 Borough High Street  
London SE1 1LW  
Helpline 08457 47 47 47 (Monday to Friday, 8am-6pm)  
Textphone 08456 06 16 00 (Monday to Friday, 8am-6pm)  
[www.acas.org.uk](http://www.acas.org.uk)

### **Benefit Enquiry Line**

Provides general advice on benefits for people with disabilities, their carers and representatives.

Helpline 0800 88 22 00 (in English and Welsh)  
(Monday to Friday, 8.30am-6.30pm and Saturday, 9am-1pm)  
Textphone 0800 24 33 55 (in English and Welsh)  
Northern Ireland Telephone 0800 22 06 74  
Textphone 0800 24 37 87  
[www.dwp.gov.uk](http://www.dwp.gov.uk)

### **Bladder and Bowel Foundation**

Advice for people with bladder or bowel control problems.

SATRA Innovation Park  
Rockingham Road  
Kettering NN16 9JH  
Nurse helpline 0845 345 0165  
Counsellor helpline 0870 770 3246  
[www.bladderandbowelfoundation.org](http://www.bladderandbowelfoundation.org)

### **British Association for Counselling and Psychotherapy**

Supplies details of accredited counsellors, psychologists and therapists. In Scotland, see also 'Counselling and Psychotherapy in Scotland'.

BACP House  
15 St John's Business Park  
Lutterworth LE17 4HB  
Telephone 0870 443 52 52  
[www.bacp.co.uk](http://www.bacp.co.uk)

### **Carers UK**

Aimed at all carers. Offers information leaflets and a national helpline run by qualified, trained staff.

20 Great Dover Street  
London SE1 4LX  
CarersLine 0808 808 7777  
(Wednesday and Thursday, 10am-12pm and 2-4pm)  
[www.carersuk.org](http://www.carersuk.org)

### **Citizens Advice**

Help with welfare rights, housing and disability advice. Local offices are listed in the telephone directory and on their website.

To find local offices in England and Wales: [www.citizensadvice.org.uk](http://www.citizensadvice.org.uk)  
In Scotland: [www.cas.org.uk](http://www.cas.org.uk)  
In Northern Ireland: [www.citizensadvice.co.uk](http://www.citizensadvice.co.uk)  
Online advice: [www.adviceguide.org.uk](http://www.adviceguide.org.uk)

### **Community Health Councils**

In Wales, the organisation which offers help if you have a problem or complaint with NHS services. The Board of Community Health Councils can provide details of your local Council.

Telephone 0845 644 7814  
[www.patienthelp.wales.nhs.uk](http://www.patienthelp.wales.nhs.uk)

## **Counselling and Psychotherapy in Scotland**

Supplies details of accredited counsellors and psychotherapists, and voluntary sector services.

16 Melville Terrace  
Stirling FK8 2NE  
Telephone 01786 475 140  
[www.cosca.org.uk](http://www.cosca.org.uk)

## **Department for Work and Pensions**

Responsible for a range of benefits and services for people who are sick or have a disability. The website includes an A-Z of benefits.

[www.dwp.gov.uk](http://www.dwp.gov.uk)

## **DIAL UK – Disability Information Advice Line**

Network of local information services, providing information and advice on all aspects of living with a disability. Local DIAL centres do not cover Northern Ireland or Scotland, except Glasgow.

St Catherine's  
Tickhill Road  
Doncaster DN4 8QN  
Telephone 01302 310 123  
Textphone 01302 310 123 (use voice announcer)  
[www.dialuk.info](http://www.dialuk.info)

## **Disability Law Service**

National charity providing free, confidential legal advice and support in social welfare and disability discrimination law for disabled people, their families and carers. The MS Society funds a dedicated MS Legal Officer who can provide basic legal advice and information and can arrange for an appointment with a specialist employment adviser. Handles Scottish cases where Scots law is in line with English law.

39-45 Cavell Street  
London E1 2BP  
Telephone/textphone 020 7791 9800  
[www.dls.org.uk](http://www.dls.org.uk)

## **Disabled Living Foundation**

Provides information and advice to disabled people and others who use equipment or assistive technologies to enhance their independence.

380-384 Harrow Road  
London W9 2HU  
Helpline 0845 130 9177 (Monday to Friday, 10am-4pm)  
Textphone 020 7432 8009  
[www.dlf.org.uk](http://www.dlf.org.uk)

## **Disabled Persons Transport Advisory Committee (DPTAC)**

An advisory committee for the Department of Transport, providing travel advice and transport information for people who are disabled or have difficulty in getting around.

Telephone 020 7944 8011  
[www.dptac.gov.uk](http://www.dptac.gov.uk)

## **Equality and Human Rights Commission/ Equality Commission for Northern Ireland**

Both organisations provide information and advice about the Disability Discrimination Act and signpost to specialist organisations where necessary. Can also offer advice on good practice in the employment of disabled people.

England: Telephone/Textphone 0845 604 6610 / 6620

Wales: Telephone/Textphone 0845 604 8810 / 8820

Scotland: Telephone/Textphone 0845 604 5510 / 5520

[www.equalityhumanrights.com](http://www.equalityhumanrights.com)

Northern Ireland: Telephone 02890 890 890

[www.equalityni.org](http://www.equalityni.org)

## **Forum of Mobility Centres**

Provides practical advice on driving, vehicle adaptation and suitable vehicle types for both drivers and passengers.

Old Wokingham Road

Crowthorne RG45 6XD

[www.dft.gov.uk/access/mavis](http://www.dft.gov.uk/access/mavis)

c/o Providence Chapel

Warehorne

Ashford

Kent TN26 2JX

Telephone 0800 559 3636

[www.mobility-centres.org.uk](http://www.mobility-centres.org.uk)

## **Motability**

Motability helps disabled people and their families become mobile by supplying wheelchairs, scooters and cars.

Motability Car Scheme

City Gate House

22 Southwark Bridge Road

London SE1 9HB

Telephone 0845 456 4566

[www.motability.co.uk](http://www.motability.co.uk)

Motability Wheelchair & Scooter Scheme

Route2mobility

Newbury Road

Enham Alamein

Andover

Hampshire SP11 6JS

Telephone 0845 60 762 60

[www.motability.co.uk](http://www.motability.co.uk)

## **Patient and Client Council**

In Northern Ireland, the organisation which offers help if you have a problem or complaint with NHS services. The Council's headquarters can give details for your local area.

Telephone 0800 917 0222

[www.patientclientcouncil.hscni.net](http://www.patientclientcouncil.hscni.net)

### **Princess Royal Trust for Carers**

Provides information, advice and support through its network of independently managed carers' centres. Also has a range of grant schemes for carers.

Unit 14, Bourne Court  
Southend Road  
Woodford Green IG8 8HD  
Telephone 0844 800 4361  
[www.carers.org](http://www.carers.org)

### **Relate/ Relationships Scotland**

Offers advice, relationship counselling, sex therapy, workshops, mediation, consultations and support, face to face, by phone and through the website.

To find your nearest Relate:  
Telephone 0300 100 1234 (local rate call charge)  
[www.relate.org.uk](http://www.relate.org.uk)  
In Scotland: 0845 119 2020  
[www.relationships-scotland.org.uk](http://www.relationships-scotland.org.uk)

### **Royal Association for Disability and Rehabilitation (RADAR)**

Offers information and advice on rights and services and also operates the National Key Scheme, which gives users access to around 4,000 locked toilets suitable for people with disabilities.

12 City Forum  
250 City Road  
London EC1V 8AF  
Telephone 020 7250 3222  
Textphone 020 7250 4119  
[www.radar.org.uk](http://www.radar.org.uk)

### **Sexual Dysfunction Association**

Help for men and women who experience sexual dysfunction, and their partners. Publishes factsheets and runs a helpline.

Suite 301, Emblem House  
London Bridge Hospital  
27 Tooley Street  
London SE1 2PR  
Helpline 0870 774 3571 (Monday, Wednesday and Friday, 10am-4pm)  
[www.sda.uk.net](http://www.sda.uk.net)

### **Skill (National Bureau for Students with Disabilities)**

Promotes opportunities for young people and adults with any kind of disability in post-16 education, training and employment.

Unit 3, Floor 3  
Radisson Court  
219 Long Lane  
London SE1 4PR  
Freephone 0800 328 5050  
Textphone 0800 068 2422  
[www.skill.org.uk](http://www.skill.org.uk)

### **Tourism for All**

Gives people with disabilities the opportunity to holiday (where possible in a mainstream environment) by providing information across all sectors of hospitality, including accommodation, visitor attractions, activity holidays and respite care establishments, both in the UK and overseas.

c/o Vitalise  
Shap Road Industrial Estate  
Shap Road  
Kendal LA9 6NZ  
Telephone 0845 124 9971  
Textphone 0845 124 9976  
[www.tourismforall.info](http://www.tourismforall.info)

### **Update**

Scotland-wide disability information service. Update can give contact details for organisations that help with a wide range of issues around living with disability.

Helpline 0131 669 1600  
[www.update.org.uk](http://www.update.org.uk)

# References

- 1 Confavreux, C. and Compston, A. (2005) The natural history of multiple sclerosis. *In: A. Compston et al. McAlpine's Multiple Sclerosis*. Churchill Livingstone Elsevier. p.199.
- 2 Orton, S. M. *et al.* (2006) Sex ratio of multiple sclerosis in Canada: a longitudinal study. *Lancet Neurology*, 5(11), 932-936.
- 3 Compston, A. and Coles, A. (2002) Multiple sclerosis. *The Lancet*, 359, 1221-31.
- 4 Polman, C. H. *et al.* (2005) Diagnostic criteria for multiple sclerosis: 2005 revisions to the 'McDonald Criteria'. *Annals of Neurology*, 58(6), 840-6.
- 5 McDonald, W. I. *et al.* (2001) Recommended diagnostic criteria for multiple sclerosis: guidelines from the International Panel on the diagnosis of multiple sclerosis. *Annals of Neurology*, 50(1), 1-7.
- 6 Compston, A. (1997) Genetic epidemiology of multiple sclerosis. *Journal of Neurology, Neurosurgery and Psychiatry*, 62, 553-61.
- 7 O'Connor, P. (ed) (2002) Key issues in the diagnosis and treatment of multiple sclerosis. An overview. *Neurology*, 59, sup. 3, s1-31.
- 8 Ramagopalan, S. *et al.* (2009) Expression of the Multiple Sclerosis associated MHC class II allele HLADRB1\* 1501 is Regulated by Vitamin D. *PLoS Genetics*. Published online: February 6 (DOI: 10.1371/journal.pgen.1000369).
- 9 Pierrot-Deseilligny, C. (2009) Clinical implications of a possible role of vitamin D in multiple sclerosis. *Journal of Neurology*. 256(9),1468-79.
- 10 Koch, M. *et al.* (2008) Factors associated with the risk of secondary progression in multiple sclerosis. *Multiple Sclerosis*, 14, 799-803.
- 11 Thompson, A. J. *et al.* (2000) Diagnostic criteria for primary progressive multiple sclerosis: a position paper. *Annals of Neurology*, 47(6), 831-5.
- 12 Thompson, A. J. *et al.* (1997) Primary progressive multiple sclerosis. *Brain*, 120, 1085-96.
- 13 National Institute for Clinical Excellence (2003) NICE Clinical Guideline 8. *Multiple Sclerosis: Management of multiple sclerosis in primary and secondary care*. London, NICE.
- 14 Department of Health (2005) *National Service Framework for Long-term Conditions*. London, Department of Health.
- 15 Available at [www.scotland.gov.uk](http://www.scotland.gov.uk) (*Better Health, Better Care and Self-management Strategy*) and [www.nhshealthquality.org](http://www.nhshealthquality.org) (*Neurological Health Services Clinical Standards*).
- 16 Available at [www.wales.nhs.uk](http://www.wales.nhs.uk)
- 17 Available at [www.dhsspsni.gov.uk](http://www.dhsspsni.gov.uk)
- 18 MS Society (2009) *Disease modifying drugs* (4th ed.) London, MS Society.
- 19 Polman, C. H. *et al.* (2006) A randomised, placebo controlled trial of natalizumab for relapsing multiple sclerosis. *The New England Journal of Medicine*, 354, 899-910.

- 20 National Institute for Health and Clinical Excellence (2007) Natalizumab for the treatment of adults with highly active relapsing-remitting multiple sclerosis. London, NICE.
- 21 Tremlett, H. L. *et al.* (1998) Use of corticosteroids in multiple sclerosis by consultant neurologists in the United Kingdom. *Journal of Neurology, Neurosurgery and Psychiatry*, 65(3), 362-5.
- 22 Barnes, D. (1998) Treatment of Acute Relapses. In C. P. Hawkins and J. S. Wolinsky (2000) *Principles of Treatments in Multiple Sclerosis*, Oxford, Butterworth Heinemann.
- 23 Dworkin, R. H. *et al.* (1984) Linoleic acid and multiple sclerosis: a reanalysis of three double-blind trials. *Neurology*, 34, 1441-5.
- 24 Dalgas, U. *et al.* (2008) Multiple sclerosis and physical exercise: recommendations for the application of resistance-, endurance- and combined training. *Multiple Sclerosis*, 14(1), 35-53.
- 25 Rutschmann, O.T. *et al.* (2002) Immunisation Panel of the MS Council for Clinical Practice Guidelines Immunisation and Multiple Sclerosis. *Neurology*, 59, 1837-43.
- 26 Sicotte, N. L. *et al.* (2002) Treatment of multiple sclerosis with the pregnancy hormone estriol. *Annals of Neurology*, 52(4), 421-8.
- 27 Sadovnick A. D. *et al.* (1994) Pregnancy and multiple sclerosis. A prospective study. *Archives of Neurology*, 51(11), 1120-4.

Written by Chloe Neild

Edited by James Bailey

With thanks to Professor David Miller for his help with the third edition and to all those who reviewed and contributed to previous editions.

Illustration on page 2 by Jane Fallows

Illustrations on page 3 by Crescent Lodge

Design Crescent Lodge, London

Disclaimer: We have made every effort to ensure that the information in this publication is correct. We do not accept liability for any errors or omissions. The law and government regulations may change. Be sure to seek local advice from the sources listed.

Suggestions for improvement for future editions are welcomed. Please send them to [infoteam@mssociety.org.uk](mailto:infoteam@mssociety.org.uk)

© Multiple Sclerosis Society, 2010

Third edition December 2008

Reviewed and reprinted February 2010

This title will be reviewed within two years of publication.

**When first published, in 2005, *What is MS?* received the Association of Medical Research Charities' top science communication award. It has also been highly commended by the British Medical Association.**

## **MS Society**

Multiple sclerosis (MS) is the most common disabling neurological disorder affecting young adults and we estimate that around 100,000 people in the UK have MS. MS is the result of damage to myelin – the protective sheath surrounding nerve fibres of the central nervous system. This damage interferes with messages between the brain and other parts of the body.

For some people, MS is characterised by periods of relapse and remission while, for others, it has a progressive pattern. For everyone, it makes life unpredictable.

The MS Society is the UK's largest charity dedicated to supporting everyone whose life is touched by MS. It provides respite care, a freephone MS Helpline, grants for home adaptations and mobility aids, education and training, specialist MS nurses and a wide range of information.

Local branches cater for people of all ages and interests and are run by people with direct experience of MS.

The MS Society also funds around 80 vital MS research projects in the UK.

Membership is open to people with MS, their families, carers, friends and supporters. You can help the work of the MS Society by:

- becoming a member
- making a donation
- offering your time as a volunteer

## **Contact information**

MS National Centre  
372 Edgware Road  
London NW2 6ND  
Telephone 020 8438 0700

MS Society Scotland  
National Office  
Ratho Park  
88 Glasgow Road  
Ratho Station  
Newbridge EH28 8PP  
Telephone 0131 335 4050

MS Society Northern Ireland  
The Resource Centre  
34 Annadale Avenue  
Belfast BT7 3JJ  
Telephone 028 9080 2802

MS Society Cymru  
Temple Court  
Cathedral Road  
Cardiff CF11 9HA  
Telephone 029 2078 6676

National MS Helpline  
Freephone 0808 800 8000  
(weekdays, 9am-9pm)  
Website [www.mssociety.org.uk](http://www.mssociety.org.uk)

The Multiple Sclerosis Society of Great Britain and Northern Ireland is a charity registered in England and Wales (207495) and Scotland (SC016433)