# Choices



# Cognition



Multiple sclerosis information

# Welcome to this Choices booklet about cognition

MS-UK believes in listening to the voices of people affected by multiple sclerosis (MS) to shape the information and support we provide. It is these people that bring us perspectives that no one else can give.

For every Choices booklet we produce, MS-UK consults the wider MS community to gather feedback and uses this to inform our content. All of our Choices booklets are then reviewed by the MS-UK Virtual Insight Panel before they are published.

This Choices booklet has been designed with you in mind. We hope it will answer some of your questions and also provide some first-hand experience from those who have been in your position people who can truly understand and empathise with your current thoughts and feelings.



Every time you find bold text with quotation marks like this, it is a quote directly from someone affected by multiple sclerosis

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## Cognition

#### What does cognition mean?

In very simple terms, cognition is the process of certain mental functions. These functions include identifying knowledge, processing and understanding information, learning and planning, problem-solving, concentration, and memory. Your cognitive abilities are the foundation of the many basic and complex tasks that you perform daily.

MS can impact your cognitive functioning in different ways and can vary from person to person. This is known as cognitive dysfunction and is often referred to as 'cog-fog'. Around 50 per cent of people diagnosed with MS will experience cognitive dysfunction to some degree (1).

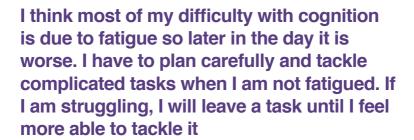
Signs of cognitive dysfunction can be so subtle that they are not initially noticeable and can occasionally be attributed to feeling tired, or perhaps a consequence of getting older. The impact can increase as the condition progresses and can interfere with work, personal life, how a person feels about themselves, or other situations that require more complex thinking. Social situations can become difficult, which can result in increased anxiety.

Jeffrey Gingold, author of 'Facing the cognitive challenges of multiple sclerosis' states in his book how in some cases, cognitive issues have the potential to be just as disabling as the physical difficulties of MS (2).

# We asked the MS community to describe how cognition affects them, and they said...

- It can be embarrassing, but luckily when I'm with friends and family they help and I can laugh about it
- I'm slow to think and speak to express my thoughts and feelings

- I cannot think quickly. If I were a computer, I feel like it's my RAM that is slow
- It takes longer to apply myself to dealing with life's issues
- I get easily distracted, lose my train of thought, and experience brain fog and memory holes
- I forget the start of a book by the time I've reached the end



As cognitive dysfunction is an invisible symptom it can often be overlooked, hard to recognise and misunderstood by family, friends, co-workers and even health professionals. Equally, cognitive dysfunction can be a difficult symptom to talk about and it can be hard to admit you are having problems.

Healthcare professionals need to have a flexible approach and be creative when providing new information to a person with MS-related cognitive difficulties. It is important for anyone, whether they are a health professional or a personal assistant working directly with people with MS, to understand the cognitive challenges that many face.

Cognitive dysfunction profoundly affects one's sense of self. You feel as though your brain is failing you (which, with MS, it is!) and when you can't rely on your own mind, where do you go?

#### What causes cognitive issues?

MS is an autoimmune condition where the body's immune system attacks its own nerve cells, forming lesions in parts of the central nervous system (CNS). It can affect any part of the brain meaning cognitive functions can be affected.

Along with lesions, MS can cause brain atrophy (loss of brain cells) and shrinkage in certain areas of the brain (1). Brain volume is the MRI measure which relates most closely to cognitive performance (3).

As the protective coating that surrounds the brain and spinal cord cells – myelin – becomes damaged, messages are not transmitted through the nerves effectively. Over time, a lack of the protective myelin coating can mean nerve cells die and there is an overall reduction in brain volume.

The result is that parts of the brain that control cognitive ability can be exposed and that's when cognitive problems can start to appear. People with lesions in the cerebrum in particular are more likely to experience cognitive problems than those who have lesions situated only in other areas of their brain and CNS (4)

The cerebrum is the largest part of the brain, contributing to approximately 80 per cent of its total weight. It is responsible for many

different cognitive functions including memory, reasoning, emotions and communication (5). It is therefore unsurprising that damage to this area of the brain is associated with the onset of cognitive impairment.

#### What are the most common cognitive symptoms?

For people with MS, cognitive symptoms can vary from person to person and the impact can fluctuate greatly. Indeed, for some people, cognitive symptoms can be very persistent and debilitating, while for others they can be more sporadic and manageable.

Secondary factors such as heat intolerance, fatigue, infections, emotional stress, relapses and medication can influence the onset and severity of cognitive problems. Similarly, the natural process of ageing can also have an impact. Therefore, it can be difficult to assess and diagnose that the cognitive symptoms you experience are definitely MS-related (6).

The words eventually come to me, once I relax

There are particular cognitive functions that people with MS may encounter difficulties with.

#### Memory

The role that memory plays in supporting your everyday functions is complex, but fundamentally it underpins your ability to acquire, store, retain and retrieve information. For people with MS, difficulty

learning and remembering new things can be a problem as the memory can be less reliable in retaining information. Issues with short-term memory are more common, with long-term memory often unaffected. While problems with memory in people with MS are common, they are often mild (7).

#### Information processing

This is the ability and speed at which your brain processes information to conduct a wide range of tasks. When this is impacted then processing lots of information at once or multitasking can become difficult. It can also have the effect of taking much longer to process what you are reading, hearing and experiencing through your senses. This can lead to a feeling of 'getting lost' as you are less able to process spatial information.

Slowed information processing is the most common cognitive symptom for people with MS and it is thought to underpin other cognitive problems (7).

#### Concentration and attention

Having poor concentration and being easily distracted, for example difficulty holding a conversation if there is background noise such as from a television, can be a problem for people with MS. Issues with concentration can be due to the impact of other cognitive symptoms such as difficulties with short-term memory and information processing.

#### **Decision making**

Making decisions, planning and problem-solving form an integral part of your daily life, however, these tasks can be more challenging for some people with MS. Often you know what you want to do but cannot figure out how to do it, as the process of evaluating information and making subsequent informed decisions is affected.

A recent systematic review of studies that looked at how MS impacted people's decision-making abilities found that around two-thirds of the total participants experienced difficulties. The research found a significant relationship between decision-making and other cognitive symptoms, particularly concerning information processing speed and attention deficit (8).

#### Social interactions

This is a wide-ranging area that covers the many different aspects of your daily interactions with others. It covers how you interpret social cues, the language used by others, emotional perception and much more.

Many people with MS find that they are less able to comprehend and identify context during conversations and meetings. This includes failing to understand the nature and intentions of nonverbal cues and signals that others use during interactions (7).

A review of studies which focused on deficits in theory of mind (which is how you perceive another person's state of mind) and facial emotion recognition in over 1,200 people, found the participants affected by MS experienced significant deficits in both of these fundamental social functions (9).

Episodes of uncontrollable, exaggerated laughing or crying, or episodes of anger, can also become an issue. This is known as pseudobulbar affect (PBA) and usually happens suddenly, often at inappropriate times, and can lead to socially uncomfortable situations.

#### Speech and language

Issues with speech and language in people with MS arise because of damage to the parts of the central nervous system that control these functions. There are different ways in which MS can affect

your ability to communicate verbally. The most common changes in speech and communication are

- Dysphasia This is characterised by difficulty in finding the right words, and forming sentences, with limited grammatical and vocabulary skills. This is the result of central processing problems and is a primary cognitive difficulty
- Dysarthria This is when your ability to control the muscles which deliver speech sounds is reduced and your speech may be slow and slurred, making it difficult for others to understand what you are saying
- Dysphonia Often accompanies dysarthria and affects voice quality, pitch control, nasal resonance, loudness and emphasis.
   The voice can sound hoarse or strained

#### I have difficulty finding the right words

When cognitive issues are undiagnosed and unrecognised it can be an emotional and distressing experience. It can also have an impact on relationships and employment, and a person can lose their sense of self and feel vulnerable.

It is important to talk through these thoughts and fears with a health professional, counsellor, the MS-UK Helpline or a friend or family member. It may be that coping strategies can be created together and in turn, this may help reduce stress and anxiety.

#### How is cognition measured for people with MS?

No one test can diagnose cognitive dysfunction, or even necessarily confirm it. However, there is ongoing research into finding better tools to assess the symptom which therefore allows better management (10).

One such initiative is the Brief International Cognitive Assessment for MS (BICAMS) which is a battery of tests aimed at streamlining cognitive assessment in people with MS. BICAMS is designed to be accessible in that it can be conducted by most healthcare professionals and can be completed in approximately 15 minutes. Studies have shown BICAMS to be an effective means of measuring cognitive impairment in people with MS and it is being used by a growing number of healthcare providers internationally (7).

The National Institute for Health and Care Excellence (NICE) guidelines state that cognition should be discussed fully by MS clinic staff and as part of a patient's comprehensive review. It recommends that referrals should be considered to both an occupational therapist (OT) and a neuropsychologist for assessment and management. (11).

There are other tools that health professionals (such as MS nurses) can use too, as access to neuropsychology in some areas can be limited. An assessment will likely include a number of different tasks that will test your ability to remember, concentrate and be considered easy to perform.

Assessments should take into consideration whether a person is having a relapse, or may be experiencing depression or high levels of stress, as all will have an impact on cognitive ability.

After an assessment has taken place, the health professional and patient will work together to set individual goals and find ways in which to make improvements where needed. This might include

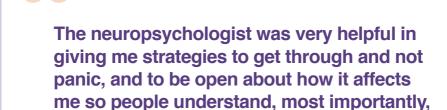
things like creating new strategies and techniques, referring for cognitive rehabilitation, counselling and finding alternative approaches to perform tasks.

## Professional help

There are various ways in which a person can manage their cognitive symptoms but sometimes professional support is needed.

Unfortunately, there are no prescribable drugs that can help with MS-related cognition although some disease modifying therapies (DMT) have been shown to facilitate cognitive improvements in clinical trials (12). However, a DMT wouldn't be prescribed solely for cognition and they all have eligibility criteria that need to be met.

Therefore, the onus is on other types of therapy to help with the management of cognitive symptoms.



not to be ashamed of it

As mentioned earlier in this booklet, GPs or MS nurses can refer you to a neuropsychologist but if there isn't one in your area then an OT can help too. An OT can work with a person to help design some strategies which support specific issues. This may include the use of certain pieces of equipment and aids or even some apps to use on your mobile phone or tablet.

Therapies that are designed to help support cognitive function in people with MS include.

#### Cognitive rehabilitation therapy (CRT)

There are many types of CRT, all of which are designed to assist with supporting people affected by injuries to the brain. These therapies are usually tailored to the individual needs of the patient and are delivered by professionals including neuropsychologists and OTs.

CRT works by supporting the learning of new cognitive strategies aimed at compensating for cognitive symptoms. It can have a positive impact on memory and problem-solving and also help to improve attention and a person's mood.

There are two approaches to CRT which differ in their methods and aims.

Compensatory CRT is concerned with helping people find new ways to manage the impact of their symptoms. For example, the use of aids such as electronic calendars to help with memory and organisational skills. It can be used as a temporary measure to help people with managing day-to-day tasks while they attempt to restore cognitive functions, or as a longer-term solution where restoration is not possible.

Restorative CRT looks at implementing strategies to strengthen or restore existing cognitive functions. It is underpinned by the concept of neuroplasticity, which is where your brain rewires itself to compensate for any damage it has been caused by disease or injury, building new pathways. An example of restorative CRT would

be for a person to take part in regular cognitive exercises that are designed to help bolster memory functions.

#### Mindfulness-based cognitive therapy (MBCT)

MBCT is mindfulness training combined with elements of cognitive behavioural therapy. It is approved by NICE as a means of combating depression, however, studies have shown that it can have a positive effect on cognitive functioning for people with MS.

Very recently the REMIND-MS study which took place in the Netherlands looked at the impact that compensatory CRT and MBCT had on the cognitive functions of people with MS. The participants were randomly apportioned to three different groups where members either accessed a course of CRT or MBCT or received enhanced usual care which comprised of an appointment with an MS nurse focusing on psychoeducation. At the start of the study, each participant set themselves two goals which they wished to achieve. Each goal focused on improving their ability to conduct daily living tasks which were impacted by cognitive symptoms.

The study found that both CRT and MBCT had a positive impact on cognitive symptoms experienced by people with MS. Those in the MBCT group showed more improvement in processing speed compared to the other group members, while those in the CRT group achieved more in terms of the individual cognitive goals that they identified at the start of the study (13).

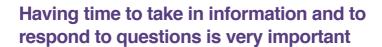
## Self-management techniques

We spoke to Professor Dawn Langdon, neuropsychologist, for guidance on self-management techniques. Professor Langdon says there is evidence for a number of things people with MS can do to help protect their cognitive health. Positive lifestyle choices, some of which may be hard to action but are important to consider include

- Less (or better no) smoking
- Limiting the use of alcohol
- Regular exercise
- Maintain a healthy weight

Check-in with your MS clinic, so that all medical aspects are managed well. For example, you may or may not have disease modifying medication prescribed, if so, you should take it on schedule. Other conditions, such as cardiovascular illness and diabetes, should also be optimally addressed, as good care can also protect cognition.

Professor Langdon also says that taking part in regular challenging mental activities can help to maintain clear and fast thinking.



#### StayingSmart

StayingSmart is an online resource provided by the charity MS Trust. It is designed to support people with MS in managing cognitive symptoms and serves as a guide for people who want to know more about the impact of cognition in MS.

It looks at everyday problems which people with MS may encounter and provides more information on how each of these issues can be managed, such as accessible tips and tricks and professional support.

#### More information

For further information about Staying Smart go to the dedicated resource on the MS Trust's website.

www.mstrust.org.uk/information-support/staying-smart

#### Brain training

Studies have shown that training your brain has a positive relationship with cognitive rehabilitation for people affected by MS. Back in 2016 a randomised controlled trial compared and contrasted the cognitive functioning of two groups of people with MS. One group undertook a 12-week, computer-based cognitive remediation training programme called BrainHQ, consisting of a series of games and tasks conducted five days per week during the trial period. The second group played standard computer games. While both groups showed cognitive improvements after the courses had been completed, the members of the cognitive remediation programme group showed a greater degree of improved cognitive functioning on post-study neuropsychological tests (14).

I use my phone to access brain game apps, electronic calendars and provide reminders

More recently a similar study of 100 people with MS who displayed mild cognitive impairment were split into two groups at random. The first group were assigned to conduct daily tasks on the cognitive games platform HappyNeuron, while the second group were not assigned any tasks. The study period was six months. The findings were stark as the members of the training group showed significant cognitive improvement after three and six months, while the non-training group showed mild cognitive deterioration (15).

What these studies found is significant as they show that exercising your brain and keeping it active helps it to repair, rehabilitate, and find new pathways, with the resultant effect being improved cognitive function.

I have learnt to manage my issues through planning, recording, scheduling, giving myself time and finding a job more suited to my ability

There are many different types of brain training apps and programmes available, however, you can retrain your brain by introducing new tasks and exercises to your daily life. Examples could include starting new hobbies, exploring new music, creative writing, learning a new language and even simply keeping a regular journal of your thoughts and feelings. Anything that gives your brain a workout and challenges you to think, feel and explore.

#### Exercise

It is very much the case that taking part in regular physical exercise can have a positive impact on your cognitive health.

A recent review of studies which looked at this relationship found strong evidence of physical exercise having a significant influence in counteracting cognitive degeneration, in both a biological and psychological sense (16).

This positive impact extends to the management of cognitive problems for people with MS.

To date, various studies have found links between regular exercise and cognitive benefits for people with MS, such as improved information processing speed and verbal learning (17) and effecting positive functional and structural changes to the brain (18).

Indeed, MS Brain Health identifies keeping active as one of the six key ways to living a brain-healthy lifestyle (19).

Exercise is one of the treatment options identified by NICE to combat fatigue, depression and low mood, all of which can impact cognitive performance.

At MS-UK we host a variety of different forms of accessible online exercise classes that suit different levels of mobility. From our chair yoga and seated exercise classes to information workshops, our online activities are wide-ranging and inclusive.

#### More information

To find out more about the benefits of exercise in managing the impact of MS please read our dedicated 'Exercise' Choices booklet. www.ms-uk.org/choices-exercise-content

MS-UK online activities web page. www.ms-uk.org/ms-uk-online

#### Depression and fatigue

The decline of cognitive function can be affected by both depression and fatigue.

Depression can have a significant impact on cognitive function and is a symptom experienced by up to 50 per cent of people diagnosed with MS (20). It can slow down a person's thinking and can increase fatigue, leading to further cognitive decline.

Approximately 80 per cent of people with MS report that they are affected by fatigue, with many confirming that this has a negative impact on their cognitive functions (7). Fatigue is also associated with increasing levels of depression. In short, each of these symptoms can impact negatively on the other.

Given the close but complex relationship of fatigue, depression and cognitive issues in people affected by MS, treating just one of those symptoms can have a positive effect on the others (20).

There are many ways in which you can get support to manage fatigue and depression. These include accessing appropriate medication, complementary therapies, mindfulness techniques, taking regular exercise, making dietary changes and counselling. Speaking to a GP and/or MS nurse about how these symptoms are affecting you can open up the conversation and get you on the road to finding the forms of treatments and therapies that suit you.

MS-UK hold a directory of fully qualified, registered counsellors who have all undertaken our 'Counselling people with multiple sclerosis' e-learning course. These counsellors offer telephone or online counselling and some also provide access to face-to-face sessions depending on where you live. Each counsellor has stated their experience and costs within the directory, which is available on request from the MS-UK helpline.

# Most reliable ways to overcome for me are avoiding fatigue and fresh/air exercise can help

#### More information

Our Fatigue Choices booklet is a good resource to learn more about how this symptom can affect MS, with details of the various treatments and therapies that can be used to lessen the impact. www.ms-uk.org/choices-fatigue-content

Our 'MS and mental health' Choices booklet provides information on how to find professional support to help manage low mood and depression, including a summary of self-management techniques. https://ms-uk.org/mental-health-choices-booklet/

#### **Smoking**

According to MS Brain Health, it is important to stop smoking when affected by cognitive symptoms. Cigarette smoking in people with MS is associated with decreased brain volume as well as higher relapse rates, increased disability progression, and more cognitive symptoms compared with not smoking (21).

In a recent retrospective study, it was found that people with MS who also smoked showed reduced Processing Speed Test (PST) scores (which are used to assess cognitive functioning) compared to non-smokers. MRI (magnetic resonance imaging) scans of the participant's brains also found that those who smoked displayed

less grey matter volume, which is essential for functions such as controlling memory and emotions (22).

Another study which looked at cardiovascular risk factors associated with lesion activity and brain atrophy in people with MS found that smoking was a particular influencer of decreased brain volume (23).

It follows that smoking cessation should be seriously considered for people with MS, given it is proven that it can impact negatively on cognitive functioning, progression of the condition and overall health.

#### More information

Our Choices booklet titled 'Smoking and MS' provides more information about this link and how to find support to kick the habit. www.ms-uk.org/choices-smoking-and-ms-content

## Tips and tricks

#### For memory

StayingSmart has some useful suggestions when dealing with memory issues, these include

- Paper diaries and electronic organisers are unobtrusive and very useful
- For important appointments and dates (such as hospital appointments or birthdays), a reminder in advance can be helpful. For example, a reminder to book leave from work or transport a week before an appointment. A reminder to buy a card or present a week before a birthday
- Writing small prompts or cues on sticky notes, for example just writing 'dry cleaning' will probably be enough to remind you to stop to pick up the cleaning

 Check-in with family members and friends to see if they have noticed any problems with your memory. It helps to be open and honest as they will then feel more able to be honest with you too

#### Other tips for everyday memory support

- It seems that we need passwords for everything that we do online, from shopping for everyday groceries to online banking. There are ways to help you to remember the different passwords that you use, such as password management apps or by simply keeping a record of the passwords you use in a secure place, either electronically or in written format
- Focus on a single task in isolation if possible, reducing your need to multi-task at every opportunity will allow you to focus on the task at hand
- To help you concentrate, turn off the radio, TV, washing machine or any other device that is responsible for background noise.
   This can be distracting to some, causing anxiety and affecting the ability to think clearly

I avoid meetings at work. I tend to catch up and email thoughts and ideas later as I find thinking on the spot too hard, especially when lots of ideas and comments are being thrown around

#### **Daily reminders**

There are other daily reminders that can really improve quality of life and are simple to implement. These include

- Dosette boxes are such a simple piece of equipment that help people to remember to take medication at the right time of the day. Sometimes they can even be arranged via the pharmacy to come prefilled with prescribed medications too
- Use a family calendar or organiser to track everyone's activities each day of the week. This can really help to alleviate confusion and keep on top of where everyone is
- Assign a specific place for storing important frequently used things such as car keys, encouraging family members to make sure they put things back where they belong
- Plan your most challenging cognitive tasks for your best time of day. If you experience fatigue around 3pm each day, make sure you have completed more taxing tasks in the morning
- Smartphones are great tools for alarms and reminders, and using the notes app to keep track of to-do lists is helpful. They are also good for brain training if you use certain game apps such as Sudoku

My iPad is my 'bible'. It goes with me everywhere, so that I can diarise events or make lists as necessary

#### For living

In Jeffrey Gingold's book Facing the Cognitive Challenges of Multiple Sclerosis he talks about tips for living (2). He says

- Maintaining clear thinking spaces in your life means saying 'no' to some requests which can often be difficult
- If a situation appears confusing, don't be afraid to ask for clarification, reminders and direction
- When faced with a moment of 'befuddlement', don't force it. Give yourself permission to pause and breathe calmly, relax and patiently gather your thinking focus. Allow yourself the time and mental space to ride out your temporary lapses in thinking
- Limit visual distractions and live an uncluttered life. Clear floors and table tops, organise shelves and drawers
- Keep lists for daily responsibilities and activities. Also, keep a long-term and a short-term list for projects

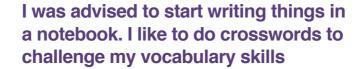


I need to try and schedule 'concentration' times to earlier in the day, when less tired

#### Each day

- Prioritise your activities
- Have a sense of purpose and accomplish something

- · Renew and maintain bonds with family and friends
- Establish a minimum exercise routine
- Find ways to relax and soothe your mind to prevent or ease stress
- Remember to have fun and make it part of your daily routine
- Be patient with yourself by taking breaks and extra time to complete projects if necessary



These are all important points to remember to begin to take control and manage your own cognitive function. Keeping your brain active with hobbies you enjoy such as reading, crafts, and painting, to name a few, can really help to keep your brain healthy. Crosswords and jigsaw puzzles are a great tool to exercise your brain. It is important that these activities stretch your mind somewhat though. Reading is great, talking about the subject with others is better, writing about it is best.

## Preparing for the future

There is often a lack of clarity over what the future holds for people with MS. This includes worries over how MS will impact on your work,

finances, meaningful activities, and the cognitive impact of MS over time. The good news is that support to help you plan your future is available, and it covers a wide range of issues that you many encounter in the short, medium and long term.

For example, if cognitive issues are becoming a problem in terms of managing your everyday finances, there are a few measures that you can take that can help to relieve your concerns.

Third-Party Access is when a trusted person is given access to your bank accounts to help you sort out your day-to-day banking. They can make sure your bills are paid on time by arranging direct debits and standing orders with authorised access to your mobile or online banking. With Third-Party Access you are still in control and are responsible for the actions taken by your trusted person, however, it allows you to delegate certain duties over to them, giving you peace of mind that your everyday finances are in good hands.

Another option would be for you to set up a standing order where a fixed amount is paid regularly to your trusted person so they can withdraw money and pay bills for you, keeping a record of what they spend on your behalf.

Third Party Access can be set up at your bank and can be cancelled at any time.

The MS-UK website hosts some in-depth resources that are designed to help you make sense of the issues which you may encounter as a person with MS, both now and in the longer term. These have been produced with guidance from the MS community to ensure that they focus on what matters to you.

Our 'Preparing for the Future' resource covers a wide range of issues, from travel and getting around, accessing therapy and self-help, to making a Will, lasting power of attorney and planning future treatment and care.

Also, 'MS and Work' is designed to help you navigate and organise the support you may need when looking for work and during employment, including retirement considerations. While our 'Benefits and MS' information provides a focus on the financial support you may be eligible for, along with links to essential benefits calculators and how to challenge benefit decisions.

#### More information

MS-UK – Preparing for the future www.ms-uk.org/preparing-for-the-future

MS-UK – MS and Work www.ms-uk.org/ms-and-work

MS-UK – Benefits and MS www.ms-uk.org/benefits-and-ms

## **About MS-UK**

MS-UK is a national charity formed in 1993 supporting anyone affected by multiple sclerosis. Our hope for the future is a world where people affected by MS live healthier and happier lives.

MS-UK has always been at the forefront of promoting choice, of providing people with all the information and support they need to live life as they wish to with multiple sclerosis, whether that be through drugs, complementary therapies, lifestyle changes, a mixture of these or none at all.

We will always respect people's rights to make informed decisions for themselves.

## The MS-UK Helpline

We believe that nobody should face multiple sclerosis alone and our helpline staff are here to support you every step of the way.

Our service is informed by the lived experience of real people living with MS, so we can discuss any treatments and lifestyle choices that are of benefit, whether they are clinically evidenced or not.

















## **New Pathways**

Our bi-monthly magazine, New Pathways, is full of the latest MS news regarding trials, drug development and research as well as competitions, special offers and product reviews. The magazine connects you to thousands of other people living with MS across the country.

Available in print, audio version, large print and digitally.

# **About MS-UK**

## Peer support service

Our Peer Support Service enables people to connect with others in a safe space and share experiences on topics of interest. Our Peer Pods take place regularly and are all volunteer led. Please visit the website to find out more www.ms-uk.org/peer-support-service or email peersupport@ms-uk.org.





#### MS-UK's online activities

MS-UK offers a variety of online activities for those affected by MS to stay active, connected with others and to manage their symptoms to live happier and healthier lives. Activities include exercise sessions, mindfulness courses, chair yoga classes, information sessions and workshops. To get involved, please go to www.ms-uk.org or email register@ms-uk.org.

## MS-UK elearning

Do you work with or support someone living with MS and want to increase your understanding and knowledge of this long-term health condition? Professionals at MS-UK have created accredited Learning courses that can help you do this. Visit www.ms-uk.org/excellence-ms/ to find out more.

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