Choices

MS-UK
Supporting your MS journey

Exercise

Multiple sclerosis information

www.ms-uk.org

Welcome to this Choices booklet about exercise

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 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**

Contents

Exercise 4

Regular vs functional exercise 7

Types of exercise 9

Symptom focused exercise 14

Alternatives to traditional exercise 23

Accessible exercise with MS-UK 25

How to stay motivated 26

Top tips 29

About MS-UK 32

Sources 36

Exercise

This Choices booklet is designed to help you understand more about the benefits of exercise as a means of managing your multiple sclerosis (MS) symptoms.

It is well known that exercise is beneficial for people affected by MS in helping to manage the impact of poor balance, pain and fatigue, as well as many other physical symptoms and mental wellbeing.

We are mindful that throughout the MS community there are people with a range of mobility, so some forms of exercise that we refer to may not be accessible to everyone. That said, a large proportion of the types of exercise that we mention can be adapted and therefore accessed by people of varying mobilities. For instance, Yoga can be done from standing or seated positions. Our message is that exercise can be inclusive and accessible to all.

> **It keeps me supple as I am a permanent wheelchair user. It improves my mood**

Prior to producing this booklet, we conducted a short survey of the MS community, within which we asked those who regularly took part in exercise if they had noticed any improvement in specific symptoms since starting their regimes. Three quarters of the responders stated that they had seen an improvement in their mood

and mental wellbeing, with almost two thirds reporting a positive impact regarding their mobility and fatigue management.

There are different types of exercise that could be of particular benefit for people living with MS, as they are known to play an important part in maintaining and improving strength, mobility and balance (1).

The aim of this booklet is to summarise these different types of exercise and provide you with a basic understanding about how they can help you manage your MS symptoms, improve function and offer general health benefits.

> **Exercise helps with fatigue, my mood, my strength and mobility**

Before starting exercise

It is recommended you speak to a GP or consultant prior to starting a dedicated exercise regime. This will afford you the chance to discuss any health concerns you may have with them so that, if need be, they can be addressed beforehand.

Another consideration would be to consult a physiotherapist, and if available, one that is part of a specialist neuro-rehabilitative service, who can assess your needs and suggest a range of exercises or assisted movements to help with symptom management, support the coordination of movement, improve posture and target areas

of muscle weakness (2). A GP or MS nurse should be able to refer you to your local NHS physiotherapy or neuro-rehabilitation service. These services can also be accessed privately.

> **Be kind to yourself but just keep moving every day**

MS and exercise

There have been a range of studies in recent years looking at recommendations and benefits of exercise for people living with MS. In 2019 researchers from the University of Alabama conducted a review of exercise training guidelines for people affected by MS, with a specific focus on their rehabilitative impact. This review found that bespoke exercise programmes, particularly those that included general aerobic, advanced aerobic and resistance exercises, can improve physical fitness, functions and quality of life for people affected by MS. It also concluded that as such, exercise can be considered an effective and safe means of rehabilitation in MS patients (3).

The National Institute for Health and Care Excellence (NICE) has a quality standard relating to physical activity for people with MS. It says that people with MS who have problems with mobility or fatigue should be offered support to remain physically active (4). The rationale for this statement is that by being physically active we can improve our mobility, lessen the impact of fatigue, maintain physical strength and help reduce the risk of secondary

complications that are linked to inactivity.

The NICE guidelines also states that exercise should be discussed during your yearly review and if needed you should be given advice about aerobic, resistance and balance exercises (including yoga and Pilates) (5).

> **I am physically stronger especially my upper body. This has meant that I can pick up my rollator and put it in the boot of the car with ease. It has improved the strength in my leg muscles which is keeping me on my feet**

Regular vs functional exercise

When we talk about regular exercise, we are referring to exercise in the more traditional sense. Essentially, exercise that helps to improve your body's strength and endurance but does not target specific practical functions. Regular exercise can help to maintain and improve your general health, however, it may not necessarily help improve specific functional problems such as walking or activities for personal care. Therefore, functional exercises, ones that target improving the strength/mobility required for a specific activity, may be suggested more so than regular forms of exercise, when looking to improve quality of life for people affected by MS (6).

Fundamentally, regular exercise can increase the strength of your muscles, but it does not always mean this renewed strength will result in the improved function that is necessary to undertake daily activities. Functional exercises are different as they allow you to target a specific activity that you may find challenging and strengthens the body in a way that will make that activity easier for you to do. They allow you to focus on the essential constituent functions required to perform a specific task, while at the same time leaving you feeling stronger, enjoying more energy, and benefitting from improved balance (7).

A good example of the benefit of functional exercises over their regular counterpart would be if you have a hip weakness which is making it difficult to walk. A regular exercise solution may be a 'straight leg raise' to help strengthen the muscles surrounding the hip. However, functional exercise focuses on the essential individual movements that are required to walk, knee bending, toe lifting, knee lifting, balance, and weight shifting. Therefore, these five movements should be the focus of the functional exercises that are performed to achieve improved walking.

Studies have shown that functional exercises can improve the connection between the nerves and the muscles, this helps your body create new pathways to the brain, otherwise known as neuroplasticity. For example, if you have difficulty lifting a leg due to weakness, this may indicate that the pathway from your brain to that leg muscle is compromised because of demyelination. Every time you attempt to lift your leg, your brain is looking for a new pathway to that limb in order to send instructions that effect movement. Over time, and with consistent work repeating this movement, research shows that your brain can find a new pathway that will enable you to lift the leg (8).

However, it is important to stress that you can use both regular and functional exercise as part of your overall fitness regime. Often regular

exercise can be used as a warm-up to prepare your body for the specific movements required for functional exercises.

> **All movement is exercise so aim to move more…**

Types of exercise

Finding the right type of exercise, one which targets your individual goals, is important as MS affects people differently. There is no specific exercise regime to recommend, it's entirely down to what you can do as an individual and, what is important to you and what becomes your priority.

> **Knowing I feel better afterwards and even if tired, it will be a 'feel good' tiredness**

As previously mentioned, it is important to note that while exercise

in general is known to help you stay healthy and manage the impact of MS, there are also certain types of exercise that target the management of specific symptoms. For example, pelvic floor exercises for bladder and bowel issues and brain training to support cognitive function. The following describes the different parameters of exercise, providing a guide for the types of exercises you can perform and the benefits each can offer.

Aerobic exercise

Aerobic exercise is cardiovascular exercise, or otherwise known as 'cardio', that gets your heart pumping. This causes your blood to pump quickly throughout your body, taking in more oxygen through your lungs. The oxygen is then directed to your muscles which helps them to move, increasing your strength to exercise. These activities are generally sustainable over longer periods of time (9).

Types of cardiovascular exercise include.

- Jogging or running (or using a treadmill)
- Cycling
- Swimming
- Walking
- Dancing
- Stair climbing
- Sports such as football, hockey, basketball, volleyball etc

Aerobic exercise can also be performed whilst seated and lying down. Put simply, any movement that is repeated and sustained over a period of time can be considered aerobic in nature. Examples include seated marching, using a 'mini- cycle' for both lower and upper body, punching, arm swings and swimming strokes.

Resistance and strength training

Resistance training is also known as strength training and involves the use of exercises that work by contracting muscles, with the aim of building muscle strength, size and anaerobic endurance (10).

Types of resistance and strength training include

- Free weights such as barbells, dumbbells, kettlebells
- Weight machines
- Resistance bands
- Body weight exercises e.g push ups, pull ups, squats

Balance and coordination

Having good balance and coordination can help to prevent falls and creates a solid foundation for your body's mobility. You can improve your balance by utilising the benefits of strength training. However, there are also exercises that specifically focus on improving balance and coordination (11).

Types of activities which can help you to improve your balance include

- Yoga
- Pilates
- Tai Chi
- Specific balance programmes such as the 'Otago Exercise Programme' (12)
- Balance trainers

> **Pilates and movement exercise has definitely kept me mobile**

Flexibility

Maintaining a reasonable range of motion is important for joint and general body health. Levels of flexibility will vary from person to person. Your body's range of mobility is influenced by the muscles, tendons, ligaments and skin that surround your joints. These soft tissues can shorten over time which is exacerbated by a lack of stretching, general activity and poor posture. This can lead to decreased flexibility (13).

Types of exercises that you can use to help improve your body's flexibility include.

- Static stretching – also known as 'active' stretching, which involves stretching until you reach the natural stretch limit then holding your position unassisted
- Passive stretching – similar to static stretching, however it involves holding your position by staying relaxed and the body part being stretched making no active contribution to the range of motion and force required. This can be applied by someone else, the use of appropriate apparatus or by using another part of your body
- Dynamic stretching – involves stretching the muscles adopting a slow, controlled but constant movement until you reach your natural stretch limit, the motion is then repeated

> **I go to Pilates at the MS treatment centre. They target strengthening the core, pelvic floor and hip muscles. It made a massive difference to my balance and strength**

Posture and core strength

There are layers of postural muscles that are situated around your trunk, which help you to maintain stability and correct postural positioning. These muscles act as a form of scaffolding which supports your body's skeletal structure while you are standing and sitting. Weaknesses and imbalances in these muscles can lead to secondary issues arising such as poor posture, lower back pain, fatigue and conditions such as sciatica, which can be aggravated by poor seated posture (14). A good posture plays an integral role in helping your body to perform other exercises more efficiently, by improving form and stability.

It is not only muscle weakness and imbalance that can lead to poor posture. For example, a common symptom of MS is fatigue, which can lead to poor postural positioning as your body is unable to maintain the level of energy output required to sustain a correct position. It follows that fatigue can therefore be both a cause and a symptom of poor posture.

Types of exercise and self-help practices to support core strength and posture include

- Pilates
- Yoga
- Tai Chi

There are many ways in which you can help your body to maintain a strong core and healthy posture. A good start would be to become mindful of your posture when performing everyday tasks, such as standing or sitting. For example, when seated ensure your feet are flat on the ground, shoulders are relaxed, and elbows are close to the sides of your body (15).

If you are a wheelchair user, it is important you get your equipment reviewed by an occupational therapist to ensure that it is suitable for you. This can usually be accessed via your local NHS wheelchair service.

> **It has helped strengthen my core, range of movement in a wheelchair and is great for mental health**

Symptom focused exercise

So far, we have focused on the different types of exercise that can be used to benefit your general health, functions and help you to manage the impact that MS can have upon your body. However, there are exercises which are designed to target the management

of specific MS symptoms. Below we will take a look at a few common examples.

> **Helps fight fatigue, stiffness and helps me to sleep better**

Spasticity

Spasticity is caused by your body's muscles increasing in tone which causes them to tighten. Following a regular programme of stretching is known to help reduce the impact of spasticity in people with MS (16). We touched on the different types of stretches that you can do in the section titled 'flexibility' and stretching in general will provide you with a solid foundation to help negate the impact of spasticity. However, it is important to be aware of the different types of spasticity that affect people with MS, as this will help you to target the affected areas with more focused stretching techniques.

A good example of this can be found by looking at the difference between flexor and extensor spasticity. Flexor spasticity occurs when the muscles on the rear of your limbs are drawn or pulled by the effect of the spasm, which in turn causes the limbs to bend and prove difficult to straighten. Extensor spasticity is different as it affects the muscles situated at the front of your limbs and forces them to remain straight instead of bending (17).

Therefore, if you experience flexor spasticity in your legs it would be wise to stretch your hip flexors using techniques practised in yoga such as the belly twist and supported bridge pose. Alternatively,

if you are affected by extensor spasticity in your legs, you should target your lower back muscles and quads by using stretches such as the forward fold pose and eye of the needle pose (18).

More information
Our 'Spasms and Spasticity' Choices booklet provides further reading on managing spasticity, including a summary of other known therapies and treatments.

www.ms-uk.org/spasms-and-spasticity

Bladder and bowel

Exercising the muscles that surround and play important roles in the functions of your bladder and bowel can help you to keep these organs working well, preventing the onset and deterioration of continence problems. There are two main muscle groups which should be targeted when devising a suitable exercise plan to assist you in managing bladder and bowel conditions. These are the pelvic floor and anal sphincter group of muscles.

The pelvic floor consists of layers of muscles that run from your pubic bone, situated at the front of your pelvis and stretching around your body to the tailbone, also known as the coccyx. Both the bladder and the bowel share the same embryological origin and their supportive muscles are part of the same pelvic floor structure. The way these organs store and excrete faeces and urine are similar and require strong and stable pelvic floor muscles to underpin correct functionality (19). Any weaknesses in the pelvic floor muscles can therefore have a negative impact on your bladder and bowel function.

The anal sphincter muscle group is based in the rectum and made up of both internal and external muscles. These muscles work

as a means of controlling stool release so play a major part in maintaining faecal continence (20).

Pelvic floor exercise

So how can you use exercise to target these muscle groups? Kegel exercises (commonly known as pelvic floor exercises) can be used by both men and women to strengthen the pelvic floor muscles. They work by isolating certain muscles situated in your pelvic floor and holding them in a contracted position for a very short period, a matter of seconds. Kegel exercises are similar to Pilates in that they are low impact and involve breathing naturally whilst maintaining a static position. There are male and female specific Kegel exercises which are designed to target the most appropriate areas of the pelvic floor muscle group for each (21).

Some people may need support initially in finding and isolating their pelvic floor muscles and formulating a regular exercise regime. Consulting a physiotherapist who specialises in pelvic health would be a great place to start and receive specialist support and advice.

The Squeezy app was launched in 2013 and is a fantastic resource to help you build customisable pelvic floor muscle exercise plans, find specialist private and NHS physiotherapists, plus providing access to a whole range of information and guidance on how to exercise to benefit your pelvic health. Squeezy is devised and designed by chartered physiotherapists who specialise in male and female pelvic health and is recommended by the NHS in the UK. There are specific apps for men and women, and it is available for a low price on android and iOS platforms.

More information
Squeezy app – www.squeezyapp.com

Anal sphincter exercise

Exercises to strengthen the anal sphincter muscles are less varied than those designed to address the pelvic floor muscle group, however the concept is the same in that they involve isolating and contracting the muscles, then holding them in a static position for a number of seconds. An example exercise would be when sitting or lying with your legs slightly apart. The next step involves squeezing the anal sphincter muscles for a few seconds and then relaxing them, repeating this action a number of times. As with pelvic floor exercises, some may require the assistance of a specialist physiotherapist to help you to engage with the muscle group, however once this has been mastered, you should be able to conduct anal sphincter exercises relatively comfortably (22).

Exercising with a stoma

Do not be put off from taking part in regular exercise if you have a stoma fitted. Exercising to build up your core strength will help you reduce the chance of developing a hernia, to which people who have a stoma fitted are susceptible. Kegal exercises, Pilates and yoga are all good forms of exercise to help build up this core strength and can be done with a stoma fitted. Speak to your GP or stoma care nurse prior to starting an exercise plan after being fitted with a stoma (23).

More information

Our ‘Bladder and bowel’ Choices booklet provides further reading on managing bladder and bowel issues, including a summary of other known therapies and treatments.

www.ms-uk.org/bladder-and-bowel-choices-leaflet

> **It has improved my ability to manage MS**

Cognition

So far, we have looked at the benefits of exercise in the physical sense to help you manage the impact of MS symptoms. Indeed, studies have shown that taking part in regular physical exercise can have a positive influence on cognitive functioning and promotes a sense of wellbeing (24).

You should also consider utilising non-physical exercise to help your brain stay healthy and manage the effect that MS can have on your cognitive functions. Two of the six recommended ways to lead a brain-healthy lifestyle, made by MS Brain Health, a consensus-led initiative headed by clinical professionals and MS patient representatives, are keeping as active as you can, in both a physical and mental sense (25).

With respect to the latter recommendation, it follows that when thinking about using exercise as a means of cognitive therapy, it

> **I prioritise more cognitive exercise at the start of week, with the more physical exercise towards the end**

is important to consider implementing non-physical types into your regular exercise regime as they can have a significant and positive effect on the health of your brain.

Cognitive Rehabilitation Therapy (CRT)

There are many types of cognitive rehabilitation therapies, 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 occupational therapists.

One particular type of CRT that has so far shown many positive results, in terms of its effectiveness in addressing cognitive impairment in people with MS, is the modified Story Memory Technique (mSMT). This method is a therapy programme which combines the use of images, words and context that has been shown to help people with MS improve their cognitive functioning, with a particular focus on memory recall. Fundamentally it involves using these elements to create stories that help you to remember words in everyday situations and is applied via a series of dedicated cognitive exercises, delivered over a set number of sessions.

A recent study undertaken by mSMT pioneer Dr Nancy Chiaravolloti, who is a clinical neuropsychologist based in the USA, concluded that mSMT can significantly improve memory performance in people with MS. Improvement that was shown to be maintained several months post-therapy (26).

Speak to your GP or MS nurse about accessing CRT in your area.

Brain training and neuroplasticity

Earlier in this booklet we looked at how functional exercises help to establish new pathways in connecting your brain to

your body, helping to improve motor function and mobility. This is a concept known as neuroplasticity, specifically in a functional sense, as it promotes improved physical functions. Fundamentally, neuroplasticity is where your brain rewires itself to compensate for any damage it has been caused by disease or injury.

Neuroplasticity also works in a structural sense, in that your brain can change its physical structure, improving the internal wiring as a result, by learning new things and staying active (27).

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-long computer-based cognitive remediation training programme called Brain HQ, 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 (28).

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 (29).

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.

> **A good mental and physical impact and a source of hope for improvement**

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 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.

Learning a new language is another way that can help you to develop new pathways in your brain. This was evidenced by a 2020 study that took place in Austria which

looked at the impact of short-term language courses on grey matter volume in people with MS. Upon the assessment of MRI scans of the participants' brains, the study concluded that after taking the course there was an increase in grey matter in areas of the brain which were responsible for short-term memory, learning and environment recognition (30).

By challenging yourself to learn new things you can bolster your cognitive functions whilst at the same time experience the joy of finding new interests.

More information

Our ‘Cognition’ Choices booklet provides further reading on managing our cognitive functions, including a summary of other known therapies and treatments.

www.ms-uk.org/cognition-choices-content

MS-UK offer a range of online activities which include creative sessions that are designed to boost cognitive processes. Go to ms-uk.org/ms-uk-online to find out more.

Alternatives to traditional exercise

If what we have written so far all feels a little regimented, planned, and devoid of fun, don’t worry! The good news is that you can still maintain a good level of fitness, one that is beneficial to your health in general and helps you to manage the impact of MS, by simply by taking part in alternative forms of exercise. Below we explore a couple of examples.

> **Build movement into everyday activities. March on the spot whilst waiting for the kettle to boil, Stand up (or move your upper body) during the adverts in a TV programme**

Everyday activities

Any activity that gets you moving can be considered a form of exercise and many of these can be done while standing or seated. It's about how to build exercise into your day.

From simply going around the home conducting household chores, gardening, or tending an allotment, going to the local store, to DIY, all of these activities get your body moving, helping you to maintain muscle strength/tone, motor function and burn energy. For example, a person weighing 65kg can burn approximately 54 calories when preparing and cooking food over a period of 30 minutes (31).

Calorie calculators are a good resource that at the very least help you with understanding how much energy is required to perform a wide range of everyday activities, including eating, sleeping and walking (32). Some of these calculators also offer a metabolic equivalent (MET) measurement, which is the energy cost required to perform a specific physical activity over a period of time. The higher the MET score, the more energy is required for that task to be conducted. A MET score is a convenient way for you to determine an approximate level of energy output that is required for different tasks (33). This approach could help you to better plan your regular activities, particularly regarding fatigue management.

Dancing

Dancing is also a fantastic and fun form of alternative exercise that studies have found to benefit people affected by MS. Many small-scale studies have been conducted looking at the impact of various dancing programmes designed to support people with MS, with the general consensus being a positive one.

For example, very recently a multi-agency, controlled pilot-trial held in Belgium, looked at how dance therapy could improve motor and cognitive functions in people with relapsing remitting MS. The study put the participants into two groups for a period of 10 weeks, one group being provided with a dance therapy programme and the other a programme focused on art. The study concluded that while both groups showed improved cognitive performance and less fatigue, the dance group improved significantly in terms of lower limb strength, coordination, balance and walking (34).

The great thing about dancing is that it is entirely accessible for people with different levels of mobility. The charity Para Dance UK is the national governing body for para dance sport and leisure in the UK. Their purpose is to promote the development of dance as a sport and inclusive activity for people with impaired mobility. The support that they provide includes 'live' online dance classes, access to pre-recorded classes via video and help with locating a qualified inclusive dance instructor (35).

Accessible exercise with MS-UK

MS-UK offers a range of inclusive online activities, including exercise classes, dance-themed options and chair yoga. Our online activities portal also hosts a variety of downloadable resources, including free access to our easy-to-follow exercise worksheets. To find out more and how to subscribe, please go to our online activities webpage.

www.ms-uk.org/ms-uk-online

Our exercise worksheets are also available on request from our helpline team.

How to stay motivated

Staying motivated to exercise is such a personal thing. You will all have your own methods to stay motivated, however life can impact on each of us differently, which can lead to demotivation. Furthermore, while some of you may relish the challenge of keeping up with a regular, and sometimes regimented exercise regime, others would flourish from a more relaxed and less disciplined approach.

> **I set myself challenges on my exercise bike**

Below we share a few ideas which may provide you with some inspiration when trying to stay motivated.

Goal setting

A good place to start when looking at ways to help you to stay motivated is the concept of goal setting, as used by physiotherapists when formulating exercise programmes for their clients. Their approach is one that has its foundations in psychology, given the belief that their clients' behavioural patterns can be adapted when working to achieve certain meaningful goals. When these meaningful goals are set, they serve as a motivating factor for people to participate fully in constructive exercise. That said, the goals that are set should be realistic and achievable so that their client's motivation does not diminish.

One method commonly used by physiotherapists when setting client goals is known as SMART - Specific, Measurable, Attainable, Realistic, Time-related (36). This approach is relatively adaptable as you can use it, even in the loosest of ways, to help you stay motivated by always having realistic goals to aim for.

Varied routines

When following a specific exercise regime, it may help to try and vary what you do every so often. There is no set timeframe to follow for this and it will be entirely up to you as to how often you change things. It will also be driven by the goals that you set for yourself, so if you have achieved the goals that you aimed for, you may wish to amend your regime by possibly lowering the intensity, or changing the types of exercises that you are doing. This will allow you to maintain the gains that you have made while freshening up your approach.

Do not underestimate the impact that boredom can have on your motivation to exercise as well. For some, following the same exercise regime can lead to a lack of motivation as you are no longer getting the mental stimulation that following something new had initially offered. It could be that making changes to your routine, even the most miniscule of tweaks, could help you replenish your motivational stores (37).

Working out with others

While some people are happy to work out alone, for others it helps to find likeminded people to exercise with. This can be motivating as it offers a social aspect, and in-turn gives you something to look forward to (38). This can also compel you to keep up with exercising at agreed times as you do not want to feel that you are letting others down. That said, for people with MS this

comes with caveats as sometimes you will need to forgo exercising at set times, for example, when you feel fatigued.

There are many exercise and activity groups available, both online and in-person, or you could simply create your own group with family and friends. The latter offers more flexibility in terms of the activities that you take part in and the times at which you do them.

Make it work for you

Whether setting goals, varying routines or working out with others, it is important to make exercise work for you. As we have touched upon previously, as a person with MS there may be times when you may need to be flexible in your approach to exercise so that you do not compromise your health and the progress that you have made. In these instances, try not to be concerned, particularly if you need to miss a scheduled session. Sometimes a rest is just as good as working out and will allow you to recharge your batteries, both mentally and physically, meaning when you return you are fresher, stronger and more motivated.

Also, don't forget to reward yourself, in whatever way suits you. This could be in the form of a treat to eat or drink at the end of each session, or a reward every so often,

for example, buying yourself some brand-new training gear. The good thing about rewards is that you are in total control of their frequency and type of reward, and they serve as an additional motivating factor, should this be needed.

Finally, why not try what is known as 'the five-minute rule'? This is where you commit to doing the activity for an initial period of say, five minutes, and then evaluate whether or not you wish to continue. The chances are that you may wish to keep going.

Top tips

We asked the MS community for their top tips for staying motivated to exercise. This is what they said

> **Start at your own pace, it's a marathon not a sprint**

> **Doing exercise that I also enjoy**

> **By reminding myself I don't want to stiffen up and lose muscle tone**

Because I know it will make me feel better in myself and I know I'll see people I know in (online) Zoom sessions

Do things you like that you know you can keep up for a lifetime

Start slowly, pace yourself and compare a few to see what meets your requirements and you enjoy. That way you will remain motivated

> Set achievable goals

> Train for specific events

> Difference in low mood helps

> I try to programme time in my day accordingly

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.

Online activities

MS-UK offers a variety of online activities to stay active and connected for those affected by MS and manage their symptoms to live happier and healthier lives. Activities include exercise sessions, mindfulness courses, chair yoga classes, information sessions and workshops. Visit our website to explore and find out more.

E-learning

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 https://ms-uk.org/excellence-ms/ to find out more.

Sources

1) Exercise Training Guidelines for Multiple Sclerosis, Stroke, and Parkinson Disease: Rapid Review and Synthesis. Kim Y, Lai B, Mehta T, Thirumalai M, Padalabalanarayanan S, Rimmer JH, Motl RW. Published July 2019. Accessed February 2023. **www.ncbi.nlm.nih.gov/pmc/articles/PMC6586489/**

2) Chartered Society of Physiotherapy. Multiple Sclerosis. Last reviewed May 2017. Accessed February 2023. **www.csp.org.uk/conditions/multiple-sclerosis**

3) Exercise prescription for patients with multiple sclerosis; potential benefits and practical recommendations. Halabchi F, Alizadeh Z, Sahraian MA, Abolhasani M. Published September 2017. Accessed February 2023. **www.ncbi.nlm.nih.gov/pmc/articles/PMC5602953**

4) National Institute for Health and Care Excellence. Multiple Sclerosis [QS108]. Published January 2016. Accessed February 2023. **www.nice.org.uk/guidance/qs108/chapter/Quality-statement-6-Comprehensive-review**

5) National Institute for Health and Care Excellence. Multiple Sclerosis in adults: management [NG220]. Published June 2022. Accessed February 2023. **www.nice.org.uk/guidance/ng220/chapter/Recommendations#ms-symptom-management-and-rehabilitation**

6) MS-UK New Pathways, Issue 136, Page 37, November/December 2022.

7) Effect of Neuromuscular Exercises on Strength, Proprioceptive Receptors, and Balance in Females with Multiple Sclerosis. Sokhangu MK, Rahnama N, Etemadifar M, Rafeii M, Saberi A. Published January 2019. Accessed February 2023. www.ncbi.nlm.nih.gov/pmc/articles/PMC8106275

8) Neuroplasticity and motor rehabilitation in multiple sclerosis. Lipp I, Tomassini V. Published March 2015. Accessed February 2023. www.ncbi.nlm.nih.gov/pmc/articles/PMC4364082

9) Physiopedia. Aerobic exercise. Accessed February 2023. www.physio-pedia.com/Aerobic_Exercise

10) Physiopedia. Strength training. Accessed February 2023. www.physio-pedia.com/Strength_Training

11) Physiopedia. Balance training. Accessed February 2023. www.physio-pedia.com/Balance_Training

12) Physiopedia. Otago exercise programme. Accessed February 2023. www.physio-pedia.com/Otago_Exercise_Programme

13) Physiopedia. Flexibility. Accessed February 2023. www.physio-pedia.com/Flexibility

14) The Ergonomic Physio. Sciatica. Accessed February 2023. www.theergonomicphysio.com.au/ergonomics-sciatica.html

15) Physiopedia. Posture. Accessed February 2023. www.physio-pedia.com/Posture

16) A group-delivered self-management programme reduces spasticity in people with multiple sclerosis: A randomized, controlled pilot trial. Hugos CL, Bourdette D, Chen Y, Chen Z, Cameron M. Published March 2017. Accessed February 2023. **www.ncbi.nlm.nih.gov/pmc/articles/PMC5433226**

17) Everyday Health. MS Muscle Spasticity: What It Is, and What to Do About It. Last Reviewed August 2019. Accessed February 2023. **www.everydayhealth.com/multiple-sclerosis/symptoms/muscle-spasticity**

18) Overcoming MS. Stretches to improve spasticity. Accessed February 2023. **overcomingms.org/recovery-programme/ms-exercises/stretches-improve-spasticity**

19) Do the urinary bladder and large bowel interact, in sickness or in health? Malykhina AP, Wyndaele JJ, Andersson KE, De Wachter S, Dmochowski RR. Published February 2012. Accessed February 2023. **www.ncbi.nlm.nih.gov/pmc/articles/PMC3309116**

20) Verywell Health. Anal Sphincter: Function, Anatomy, Complications. Last reviewed August 2022. Accessed February 2023. **www.verywellhealth.com/anal-sphincter-1942667**

21) Bladder and bowel community. Pelvic floor exercises. Accessed February 2023. **www.bladderandbowel.org/help-information/resources/pelvic-floor-exercises**

22) Bladder and bowel community. Sphincter exercises. Accessed February 2023. **www.bladderandbowel.org/conservative-treatment/sphincter-exercises**

23) Colostomy UK. How does exercise help prevent hernias? Published June 2019. Accessed February 2023. **www.colostomyuk.org/how-does-exercise-help-prevent-hernias**

24) Effects of Physical Exercise on Cognitive Functioning and Wellbeing: Biological and Psychological Benefits. Mandolesi L, Polverino A, Montuori S, Foti F, Ferraioli G, Sorrentino P, Sorrentino G. Published April 2018. Accessed February 2023. **www.ncbi.nlm.nih.gov/pmc/articles/PMC5934999**

25) MS Brain Health. Six ways to lead a brain-healthy lifestyle. Accessed February 2023. **www.msbrainhealth.org/people-with-ms/six-ways-to-lead-a-brain-healthy-lifestyle**

26) The efficacy of the modified Story Memory Technique in progressive MS. Chiaravalloti ND, Moore NB, DeLuca J. Published February 2019. Accessed February 2023. **pubmed.ncbi.nlm.nih.gov/30741103**

27) Multiple Sclerosis.net. Multiple Sclerosis and Neuroplasticity. Last reviewed April 2022. Accessed February 2023. **www.multiplesclerosis.net/living-with-ms/neuroplasticity**

28) NYU Langone Health. At-Home Cognitive Remediation May Provide Medication-Free Symptom Relief for Neuropsychological Issues Associated with Multiple Sclerosis. Published April 2016. Accessed February 2023. **nyulangone.org/news/home-cognitive-remediation-may-provide-medication-free-symptom-relief-neuropsychological-issues-associated-multiple-sclerosis**

29) Targeted cognitive game training enhances cognitive performance in multiple sclerosis patients treated with interferon beta 1-a. Menascu, S., Aloni, R., Dolev, M. et al. Published December 2021. Accessed February 2023. **jneuroengrehab.biomedcentral.com/articles/10.1186/s12984-021-00968-3**

30) Second language learning induces grey matter volume increase in people with multiple sclerosis. Ehling R, Amprosi M, Kremmel B, Bsteh G, Eberharter K, Zehentner M, Steiger R, Tuovinen N, Gizewski ER, Benke T, Berger T, Spöttl C, Brenneis C, Scherfler C. Published December 2019. Accessed February 2023. **pubmed.ncbi.nlm.nih.gov/31869402**

31) Nutracheck. Calories burned cooking. Accessed February 2023. **www.nutracheck.co.uk/calories_burned/in_the_home/cooking_or_food_preparation**

32) Captain Calculator. Calorie Calculators. Accessed February 2023. **www.captaincalculator.com/health/calorie**

33) Healthline. What exactly are METs, and what should you know about them? Published October 2019. Accessed February 2023. **www.healthline.com/health/what-are-mets**

34) Effects of a 10-week multimodal dance and art intervention programme leading to a public performance in persons with multiple sclerosis - A controlled pilot-trial. Fanny Van Geel, Paul Van Asch, Renee Veldkamp, Peter Feys. Published June 2020. Accessed February 2023. **www.sciencedirect.com/science/article/abs/pii/S2211034820303321**

35) Para Dance UK. Accessed February 2023. **www.paradance.org.uk**

36) Physiopedia. Goal Setting in Rehabilitation. Accessed February 2023. **www.physio-pedia.com/Goal_Setting_in_Rehabilitation**

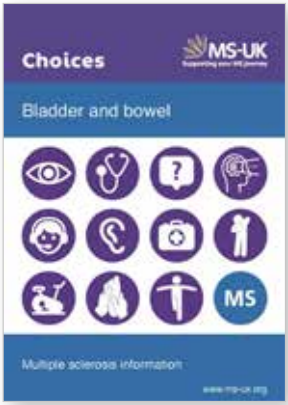
37) My Protein.com, How often should you change your exercise regime? Accessed February 2023. **www.myprotein.com/thezone/training/workout-progress-how-often-should-you-change-workout-routine**

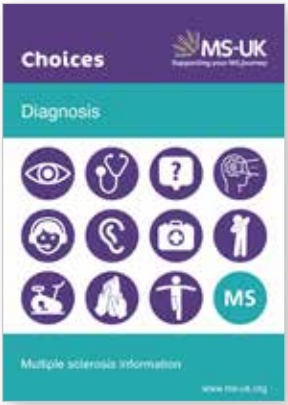
38) NHS Inform. Staying motivated to exercise. Last reviewed November 2022. Accessed February 2023. **www.nhsinform.scot/healthy-living/keeping-active/getting-started/staying-motivated-to-exercise**

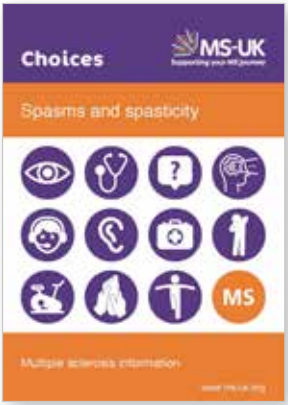
Last reviewed February 2023

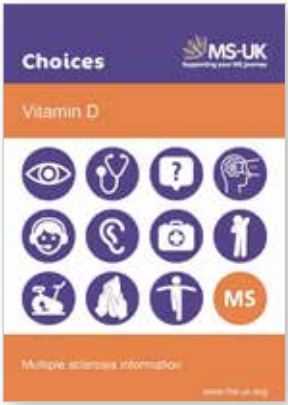
Read more Choices booklets

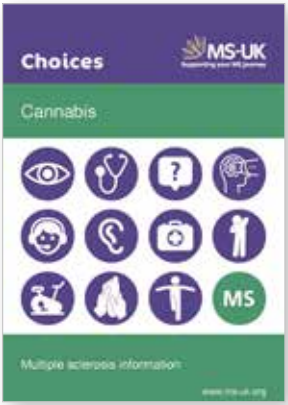
For more information about living well with multiple sclerosis, visit **www.ms-uk.org/choicesleaflets** where you can read more and download your free copy of any of our Choices booklets.

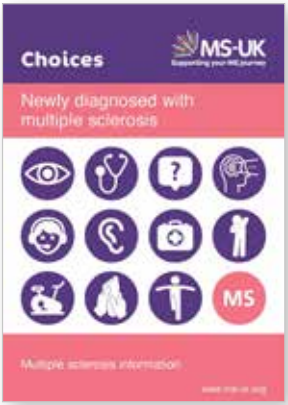












Check out MS-UK's online activities

Live a happier and healthier life with MS





- ✓ Accessible online exercise classes
- ✓ Chair yoga classes
- ✓ Mindfulness courses
- ✓ Interactive workshops
- ✓ Information sessions
- ✓ Peer Support Service

Don't miss out – sign up for our new online activities today!

Visit www.ms-uk.org or contact us at register@ms-uk.org

MS-UK
Supporting your MS journey

Registered charity number 1033731

MS-UK
Supporting your MS journey

Stay in touch

MS-UK
D3 Knowledge Gateway,
Nesfield Road,
Colchester,
Essex, CO4 3ZL

www.ms-uk.org

@MSUK6
www.facebook.com/MultipleSclerosisUK
www.youtube.com/c/ms-ukorg
www.linkedin.com/company/ms-uk
www.instagram.com/multiplesclerosis_uk

MS-UK Helpline
0800 783 0518
info@ms-uk.org

Registered Company Name
Multiple Sclerosis-UK Limited, trading as MS-UK
Company Number 2842023
Registered Charity Number 1033731
VAT Number 632 2812 64
Registered Office D3 Knowledge Gateway,
Nesfield Road, Colchester, Essex, CO4 3ZL

Helplines Partnership Member

FR Registered with FUNDRAISING REGULATOR