

Exercise



Multiple sclerosis information

Welcome to this Choices leaflet about exercise...

MS-UK believes we must listen 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 leaflet we produce, MS-UK consults the wider MS community to gather feedback and uses this to inform our content. All of our Choices leaflets are then reviewed by the MS-UK Virtual Insight Panel before they are published.

This Choices leaflet 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 see a box with an icon like this, it is a quote directly from someone affected by multiple sclerosis.

Contents

Exercise.....	4
Walking.....	8
Swimming.....	9
Pilates	10
Tai Chi.....	11
Yoga.....	11
Joining a gym	12
Physiotherapy.....	13
Example exercises	13
Advanced exercise – seated to standing	17
Mobilisation exercises for foot drop.....	18
Flexibility and stretching of the lower leg muscles	20
Strengthening exercises.....	21
Further information	22
About MS-UK	24
Sources	26

Exercise

It is widely acknowledged that regular exercise is important in maintaining optimum health, but what do you do when you have a condition that can give you 'bad' days and leave you feeling like exercise is the last thing on your mind? The important thing to remember is that doing something is better than nothing and ultimately, you may find that in the long term you will feel the benefits of anything you can do.

Exercise can improve cardiovascular fitness, muscle strength, mobility, balance and coordination. It can improve mood, increase energy levels and help with weight management. It's also a great way to meet people and socialise (1).



More strength, more energy (once recovered from exercise session) and a HUGELY positive psychological effect.

For people with multiple sclerosis (MS), finding the right type of exercise is important as MS affects people differently. There is no one type of exercise recommended for people with MS; it's entirely down to what you enjoy and what you are able to do as an individual and if you enjoy it, you will want to continue and hopefully do more!

Don't worry if you have never done any exercise before or it's been years since you last did anything. Slow and steady is the best way to build up your stamina. Getting your endorphins rushing around your system will soon have you feeling better about things.

There is a wealth of choice when it comes to exercise and there has also been a huge rise in people taking up wheelchair sports – there are thousands of different opportunities for you (and your family) to get involved in. Work with your MS and how it affects you, to find an activity that you love.



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

Don't forget that even if you feel that pounding the pavement, hitting the gym or taking up a new exercise hobby is just too much for you, there are gentler ways to exercise that will still make you feel that you are doing something.

If you are lucky enough to live near to a MS therapy centre, why not make use of the specialised equipment or exercise classes that they may have on offer? One particular piece of equipment that is a real support to people with mobility problems is a Thera bike (2).

Thera bikes have a motor that helps tired muscles to keep moving, even when you don't feel like you can do it for yourself. To find your nearest MS therapy centre see our Choices leaflet, MS Therapy centres for details of all centres across the UK and check out the services they offer.

This leaflet contains details of popular types of exercise, but it is by no means an exhaustive list.

Before starting any type of exercise, it's advisable to talk to your GP, MS nurse or neurology professional.



Keeping as flexible as possible and building or maintaining strength helps; use it or lose it! Also enjoy classes with other MS-ers and share info and laughs.

Exercise and fatigue

Fatigue is a common symptom of MS. It might sound counterintuitive, but moderate exercise has been shown to improve resistance to fatigue. Clearly, it's best not to exercise through fatigue or to try to battle on when it would be better to rest, but in the longer term, adding some exercise into your daily life can pay dividends.

The National Institution for Care Excellence (NICE) published guidelines in October 2014 for the management of MS. In these guidelines NICE advised aerobic, balance and stretching exercises, including yoga may be helpful in treating MS-related fatigue (3).

Sometimes exercise can bring challenges for people with MS. Some people find that their MS symptoms can become temporarily worse during exercise because they are affected by the increase in body temperature. If you are affected by heat, take precautions to keep yourself as cool as possible – always carry a bottle of icy water with you and take rest breaks when needed. If outside, keep to shaded areas. You can also put a hand towel in the freezer and drape this around your neck. The neck has lots of blood vessels, so keeping them cool will keep you cooler overall. If working out in a room or gym, see if you can have a fan working near you to keep the air cool.

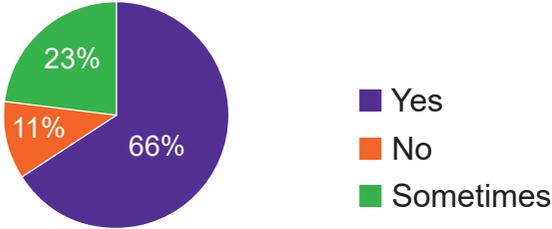
Research conducted at Sheffield Hallam University into the effects of exercise on fatigue in people with MS, found that participating in short bursts of moderately intense exercise, such as walking and cycling can improve resistance to fatigue (4).



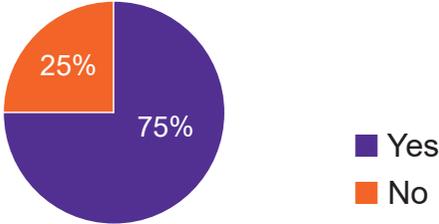
I am much steadier when I have been exercising. I am stronger and have more energy. I sleep better. My digestion is better.

At MS-UK we conducted our own survey on exercise and MS and here are the results:

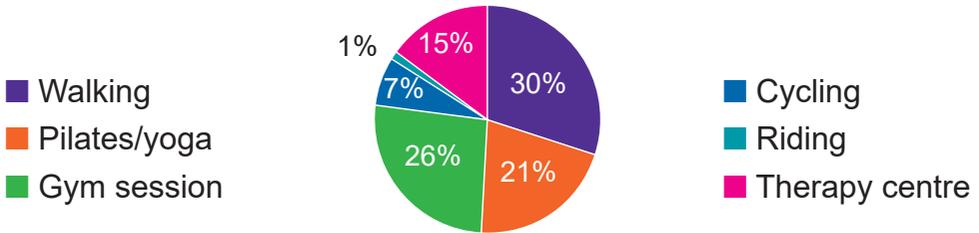
Do you exercise on a regular basis?



If you exercise regularly, have you noticed an improvement in your MS?



What type of exercise benefits you the most?



Walking

Moderate exercise such as walking, with or without a mobility aid, has been found to have many benefits. As well as keeping you physically fit, it has been shown to reduce the overall risk of chronic illnesses, such as heart disease, type 2 diabetes, asthma, stroke and some cancers (5).

Walking is free and simple. It can also be social if you walk with a friend, your partner or as part of a walking group. There are many local walking groups that you could join, as well as dog-walking clubs if you have a four-legged friend.

The general advice for walking is to make sure you are wearing a comfortable pair of trainers – nothing that may rub the foot and give you blisters, wear comfortable clothes and take a drink or snack with you. It's best to start slowly – just a couple of minutes a day is a step in the right direction – and build up to longer walks.

One idea is to time a walk from your home and then try to better the time it takes to return. For example, walk away from your home for ten minutes while timing yourself and then try to return in nine minutes. In the following days you can then extend the time you walk away from your home, as well as improving the time it takes you to return. (And you can always stop for a drink and rest before you begin your return home.)

You can also measure the distance you walk by either estimating the distance or buying a pedometer. This is a small device that attaches to your belt to measure the number of steps you take. Pedometers are available quite cheaply in most chemists or supermarkets, or online. There are other devices which can be used in conjunction with an app on your phone or tablet to keep a track of your efforts. This is a great way to keep motivated.

The Department of Health recommends everyone walk 10,000 steps a day (around five miles) (6). This might sound like an intimidating total, but most people walk 4,000 steps a day doing normal activities, so adding a short walk of about 20 minutes to your routine can really make the difference. Wearing a pedometer will soon show how you have clocked up the miles.

Swimming

Swimming can be especially helpful because your bodyweight is supported by the water and the water helps to stabilise someone with balance problems. Weaker muscles can operate in this environment and will strengthen from the resistance created as you move through the water. As swimming involves many muscles in your body, it can also help to increase coordination (7).

There are now many more swimming pools and leisure centres offering special sessions for people with disabilities or those who require particular help and it may be worth trying one of these sessions first, if you need to. You could contact your local council to see what they have to offer in your area.

As a precaution it is best to ascertain the temperature of the water beforehand as some people with MS are affected by temperature. The most comfortable temperature is about 30°C (86°F).

Pilates

Pilates is an all-round stretching and strengthening regime, designed to improve muscle strength, posture and flexibility. Pilates is a type of exercise programme based on correct body alignment. The focus is on coordination, moving properly and core strength. Good breathing patterns are also important (8).

Pilates is a very popular choice of exercise and incorporates elements of yoga, stretching and muscle strengthening using the body's own weight.

Pilates is a low-impact, gentle form of exercise, but some classes are floor-based so consideration must be given as to whether this is suitable for you. Some instructors specialise in Pilates for people with reduced movement and even seated classes. Some gyms offer Pilates classes to their members. These tend to be in larger groups, and you may prefer a smaller group where you can receive more individual attention from the instructor. Look for instructors accredited by a recognised Pilates training body, such as the Pilates Foundation, Body Control Pilates or Stott Pilates. See Further Information for more details.



I go to Pilates at the MS treatment centre. They target strengthening the core, pelvic floor and hip muscles. Made a massive difference to my balance and strength. Be proactive not reactive. It's easier to retain strength than to lose it and try to regain it.

Tai Chi

Tai Chi is meditation with movement. It concentrates on relaxation and correct breathing, while performing graceful, circular, flowing exercises, sometimes to music. It is especially helpful for people with MS who may not have the stamina to exercise at a high speed and another advantage is that you can exercise without overheating (9).

Tai Chi can help in MS by improving balance, combating fatigue and giving you more energy. It can also help with spasms, muscle strengthening and is very relaxing. Regular practice can also help with depression and maintaining a calm and more serene inner state. Tai Chi is a good method of self-development, focusing the mind and giving you a greater sense of wellbeing.

Tai Chi is based on a range of movements in a standing position, but it is possible to do some of the moves sitting down, e.g. the arm movements and breathing exercises. Talk to your Tai Chi instructor about how these movements can be adapted for you.

The Taoist Tai Chi Society of Great Britain run Health Recovery classes for people with MS from their centres based in Colchester and Maldon, Essex and Newport, South Wales.

Yoga

Yoga is about a unity of mind and body. It is as much about your breathing and your outlook on life as it is about postures. It can calm the mind and energise the body, as well as helping to counter-act stress, fatigue and depression (10).

It has a good effect on the endocrine glands, circulatory and respiratory systems and improves wellbeing. Yoga also tones the digestive organs and other glands in the body such as the thyroid and adrenals.

Like Pilates, yoga is suitable for all ages, and all fitness levels. Yoga is a low-impact, gentle form of exercise, but tends to be floor-based so consideration must be given as whether this is suitable for you.



Strengthening my core has meant I can turn over at night and means I can stand for longer.

Adaptive yoga such as chair yoga is suitable for people who cannot stand or have mobility difficulties. While seated on chairs, students can do versions of twists, hip stretches, forward bends, and mild backbends (11).

Joining a gym

Having MS should not be a barrier to joining a gym, if that is what you want to do. Gyms offer a range of equipment, exercise classes and some have swimming pools. Your home town will have a range of gyms with different offerings. Some gyms charge a membership fee; either monthly or annually. Some gyms operate on a 'pay as you go' basis so you only pay a fee on the day you use the facilities. Many council-run facilities have concessionary day rates for people in receipt of benefits.

For gyms which work on a membership basis, it's worth asking the manager about whether you can suspend your membership if you were unable to use the gym for a few weeks if you had a relapse. Most gyms would be happy to do this, but it's worth double-checking before signing the contract. Of course, if you use a 'pay-as-go' facility, this is not a concern.

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.

Physiotherapy

If you are experiencing symptoms, or a change in symptoms relating to mobility, muscle weakness, spasticity or balance, you can ask your GP or neurology professional for a referral to a neurologically-trained physiotherapist, or neuro-physio.

A neuro-physio can assess you and suggest a range of exercises or assisted movements to help with your symptoms and support you in coordinating movement, improving posture or targeting areas of muscle weakness (12).

Example exercises

Over the next few pages you will see Nigel demonstrating some seated exercises for home use including some specific exercises for drop foot. Nigel is a MS-UK client at our wellness centre, Josephs Court.

Stretching exercises at home really make a difference to how I feel on getting up next morning.

Seated exercises

Seated twists

Looking directly ahead with chest up and back straight. Twist using the arms to the left, back to the centre and then to the right and repeat. Aim to do 10 twists each way.

- Helps to work and strengthen the core
- Muscles used – stomach and lower back



Seated knee lifts

Lift both knees at the same time as high as you can. Alternatively use one leg at a time. Aim to do 10 repetitions each leg.

- Helps with mobility in the legs and acts as a resistance exercise to really get the legs working
- Muscles used – legs and stomach



Seated leg cycling

Move the legs in a cycling motion aiming to keep both legs off of the floor. Alternatively, place one leg on the floor and move the other one in the same motion.

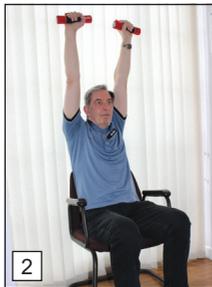
Aim to do 10-30 secs non-stop and repeat three times, both forwards and backwards.

- Helps by acting as a cardiovascular exercise to help build your fitness levels and mobility
- Muscles used - stomach and legs

Seated shoulder press

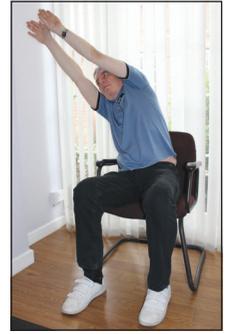
Using a weight from home (cans of beans or anything you can comfortably use). Push the weight above your head bringing the arms back down to around shoulder height and repeat. Aim to do 10 repetitions overall.

- Helps to build strength in the upper body and work the muscles efficiently
- Muscles used - shoulders and arms



Seated upper body stretches

Stretch up pushing your fingertips towards the ceiling and then manoeuvre your hands to the left and then the right, to stretch either side of your body. Keep the arms straight and not bent at the elbow. When stretching ensure that you hold the position, do not pulse or move whilst stretching. Hold the stretch for up to 30 seconds.



- Helps to loosen up the muscles and can potentially help with muscle spasticity
- Muscles used - core, arms and upper back

Seated lower body stretch

Keep your legs straight whilst pointing your toes to the ceiling and pushing your heel to the floor. To increase the stretch, lean the upper body towards the toes. This can be done with both legs or individually.

- Helps to loosen up the muscles and can potentially help with any muscle spasticity
- Muscles used - legs (hamstrings – back part of the upper leg, where most people get spasms)



Seated cardio burst

It is important to really increase your heart rate to help build your fitness levels and to reduce the risk of any cardiovascular conditions arising. The best way to do this seated would be to use the full body and create one big star shaped movement. This exercise can be performed once you feel you are ready (it may be best to start with the seated leg cycling.)

- Helps to build your fitness level
- Muscles used - arms and legs



Advanced exercise – seated to standing

If you have the ability to stand you should do this on a daily basis. You can do this unaided or aided.

Aided – use a walking stick, walker or something that will help support your weight. Stand up as tall as you can putting the weight through your chosen aid, bringing the shoulders back and chest out whilst looking forward with your head slightly raised. Once you are up and balanced get yourself prepared for the important part. You will need to focus on controlling your body slowly down to the chair whilst keeping the chest and head up, with eyes focused ahead.

Unaided – do exactly the same as above but with your arms in front of you, or pushing up from your chosen chair or wheelchair.

- Helps with weight bearing and strengthening legs
- Muscles used - core and legs

Mobilisation exercises for foot drop

Foot drop is a gait abnormality in which the dropping of the forefoot happens due to weakness, irritation or damage to the common fibular nerve including the sciatic nerve, or paralysis of the muscles in the anterior portion of the lower leg. It is usually a symptom of a greater problem, not a disease in itself (3).

Toe pulls

In a seated position, place your foot on a platform to isolate the toes. Pull your toes up towards the knee. This will help the ankle joint.



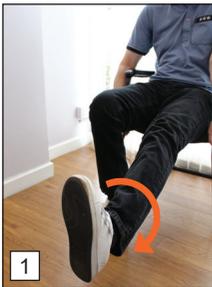
Heel or toe rocking

This can be done in a seated or standing position (hold on if you have stability issues). Place your foot on a platform where possible, rock your foot from toe through to heel. There are some exercise aids out there that can help including stability discs and heel toe rockers if required.



Ankle rotations

In a seated position if you are able, raising one leg at a time, circle your ankle in clockwise and anti-clockwise movements. Or, if you can lift your leg across your opposite leg you can mobilise the ankle with your hand.



Flexibility and stretching of the lower leg muscles

These stretches can be done to help the calf muscles.

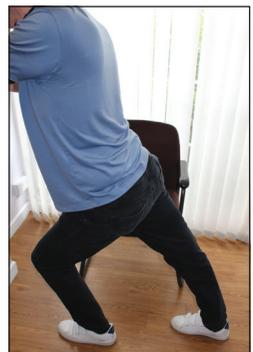


Towel stretches for the calf muscles

Use a towel or resistance band over the toes and ball of foot. Hold the end of towel in both hands and pull towards the body, hold for 20 secs, release and then repeat.

Wall stretches for lower leg

Take a split stance position facing the wall, place hands on the wall and stretch out the back of the leg. You should be able to feel the stretch down the back of your calf. Now move your body weight forward and place weight over the front bent leg, you should feel the stretch in the lower portion of the leg.



To release soft tissue tension

This can be achieved with massage or the use of a foam roller, both will release muscle tension and promote blood flow.

Strengthening exercises

Static cycling on upright or recumbent cycle

The cycling action encourages repetitive movement of the ankle, which helps mobilise the joints and builds strength in the legs.

Ankle weight resistance band

Place the band around the feet and pull it up towards the body. This is a good exercise to strengthen the muscles.

The continuity of exercise is a big thing with any neurological conditions, good movement patterns need to be established daily and re-affirmed.

Exercise can help in many ways. Whether you get involved in a local exercise group or activity centre, or look online for exercises there is a lot of information out there. It may just inspire you to make the changes needed, or at least start thinking about it.

Further information

Body Control Pilates

www.bodycontrolpilates.com

British Wheel of Yoga

25 Jermyn Street

Sleaford

Lincolnshire, NG34 7RU

Call 01529 306851

Email office@bwy.org.uk

www.bwy.org.uk

Deloitte Parasport

www.parasport.org.uk

Disability Sport Wales

www.disabilitysportwales.com

English Federation of Disability Sport

www.efds.co.uk

MS Society Active Together

www.mssociety.org.uk/ms-active-together

MS-UK Choices leaflet for MS Therapy centres

www.ms-uk.org/choicesleaflets

NHS Choices – LiveWell

www.nhs.uk/Livewell/fitness/Pages/Fitnesshome.aspx

The Pilates Foundation

Call 020 7033 0078

Email info@pilatesfoundation.com

www.pilatesfoundation.com

The Tai Chi Union

www.taichiunion.com

The Taoist Tai Chi Society of Great Britain

www.taoist.org.uk

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.

MS-UK Counselling

MS-UK Counselling is open to anyone living with MS and is the only service of its kind available in the UK. Whether you want support coming to terms with a diagnosis or to improve your mental wellbeing, our counselling service is focused on helping you.

All of our MS-UK counsellors are BACP registered or accredited with an in depth knowledge of MS.

Sources

- (1) Exercise and multiple sclerosis. Authors: Lesley J. White & Rudolph H. Dressendorfer. 23 September 2012. link.springer.com/article/10.2165/00007256-200434150-00005
- (2) Birkdale paediatric and adult neuro physio. Description of a thera trainer. www.neuro-physio.co.uk/thera-trainer/
- (3) National Institute for Health and Care Excellence. Clinical guideline [CG186]. October 2014. Multiple Sclerosis in Adults: Management. www.nice.org.uk/guidance/cg186/chapter/1-recommendations 1.4.1 & 1.5.6
- (4) Sheffield Hallam University. Liam Humphreys. Exercise for Multiple Sclerosis. www.shu.ac.uk/research/specialisms/centre-for-sport-and-exercise-science/what-we-do/projects/exercise-for-multiple-sclerosis
- (5) NHS Choices. Walking for health. 30 June 2016 www.nhs.uk/Livewell/getting-started-guides/Pages/getting-started-walking.aspx
- (6) Public Health England. Press release. 24 August 2017 www.gov.uk/government/news/6-million-adults-do-not-do-a-monthly-brisk-10-minute-walk
- (7) Heathline. Kimberly Holland, Gregory Minnis DPT. 27 February 2017. MS: Exercises for better balance and co-ordination part 5 of 6. www.healthline.com/health/multiple-sclerosis/exercises-balance-coordination#Swimming5
- (8) Multiple Sclerosis News Today. 04 October 2016. Ed Tobias. Pilates: A good therapy for MS? multiplesclerosisnewstoday.com/2016/10/04/is-pilates-a-good-ms-therapy

- (9) MS Trust. 26 October 2014. Is tai chi beneficial for people with MS? www.mstrust.org.uk/research/research-updates/update140826-tai-chi-benefit
- (10) Healthline. 24 August 2016. The benefits of yoga for people with MS. www.healthline.com/health-news/benefits-of-yoga-for-ms#3
- (11) Verywell. 10 August 2017. 10 chair yoga poses for home practise. www.verywell.com/chair-yoga-poses-3567189
- (12) Chartered Society of Physiotherapists. 04 May 2017. How physiotherapy can help MS. www.csp.org.uk/your-health/conditions/multiple-sclerosis

All links accessed December 2017

Last reviewed: December 2017



Stay in touch

MS-UK
Unsworth House
Hythe Quay
Colchester
Essex, CO2 8JF

www.ms-uk.org

 @MSUK6

 www.facebook.com/MultipleSclerosisUK

 www.youtube.com/c/ms-ukorg

 www.linkedin.com/company/ms-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: Unsworth House, Hythe Quay
Colchester, Essex, CO2 8JF

