

Visual symptoms



Multiple sclerosis information

Welcome to this Choices booklet about visual symptoms...

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 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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Visual symptoms

Visual symptoms are common amongst people with MS. For some they are often the first associated symptoms they experience (1).

There are three common visual symptoms that occur because of MS. These are optic neuritis, nystagmus and diplopia. Other symptoms include uveitis and dry eye syndrome.


We will take a closer look at these different types of visual symptoms within this booklet.

**Get your eyes checked by an optician
and speak to your MS team**


Optic neuritis

Optic neuritis is a common visual symptom experienced by people with MS. It is caused by inflammation or demyelination of the optic nerve at the back of the eye, which transmits visual image signals from the eye to the brain (1).

For some, optic neuritis is the first MS-related symptom that they experience. It has also been found to be a precursor to an MS diagnosis. A recent cohort study of 11 million patients worldwide found



Issue comes when I exercise and become hot, so I manage what I do especially in hot weather, I have a cool vest I can wear to cool me down



that just over one third of people aged between 18 and 50 years old received an MS diagnosis within 10 years of being diagnosed with optic neuritis (2).

Symptoms include a disturbance in vision which can manifest in a variety of ways. For example, blurring can occur, there can be a reduction in colour vision, particularly for the colour red, with some describing seeing flashing or flickering lights. Optic neuritis can also cause a headache, or a pain behind the eye when the eye moves, particularly when you are initially affected (3).

Over half of those affected by optic neuritis will experience Uhthoff's sign, also known as Uhthoff's phenomenon – in which symptoms worsen with heat or exhaustion (4).

Optic neuritis is a variable condition where vision can be moderately to severely affected. It usually occurs in one eye but can occur in both eyes at the same time.

Symptoms can start suddenly and progress for a few weeks before recovery happens spontaneously. Treatment with steroids may be advised by your MS nurse to help reduce inflammation and speed up recovery (3).

Optic neuritis heals slower than it starts but it does get better

If the optic nerve is damaged by demyelination a permanent loss of visual acuity, which is clarity of vision, may be experienced.

Nystagmus

Nystagmus is a condition in which the eyes move involuntarily. The movement is usually horizontal, but it can also be vertical or rotary. In almost all cases, both eyes move together. There are two main types of nystagmus, one which appears in the first months of life which is called congenital nystagmus and another which develops later in life which is usually called acquired nystagmus (5).

Acquired nystagmus is most common in people with MS and although they may be initially unaware of these involuntary movements, they may eventually notice it themselves by looking in a mirror or it could be observed by others.

Accept that it can take time to focus. Just sit down, relax, and wait. A cold flannel across the eyes helps me

Nystagmus is usually diagnosed by an ophthalmologist who will examine the inside of your eyes and test your vision. However, diagnosing acquired nystagmus may also require a referral to a neurologist (6).

Although acquired nystagmus is quite a common symptom, treatment of this condition is limited at present. Drug therapy with gabapentin or memantine may help (7). Botulinum toxin injections have also been shown to help some people with the acquired form of nystagmus associated with MS. Prescription spectacles and contact lenses may be used as a corrective measure (8).

More information

The Nystagmus Network is dedicated to supporting people with this condition. They are also instrumental in nystagmus research and raising awareness.

Visit – www.nystagmusnetwork.org

Telephone – 01427 718093

Email – info@nystagmusnet.org



I keep things in their place so I know where they are. Wear sunglasses, and request letters are sent to you in large print



Diplopia

Diplopia, or double vision, can be a very early symptom of MS. It is caused when the pair of muscles that control a particular eye movement are weakened. The muscles then become uncoordinated, and this disturbs the vision by producing images in double. These images can be seen side by side horizontally or vertically and in some cases diagonally.

It may also cause loss of balance because spatial orientation, that ability of a person to correctly determine their body position in space, is disturbed. The effect is usually temporary and can occur through fatigue or over-use of the eyes. For example, too much time spent on a computer or reading for a long time. Resting the eyes periodically throughout the day can be beneficial (9).

If you experience double vision, talk to your GP or MS nurse about a referral to an ophthalmologist. Treatment could include prescribed glasses or contact lenses and specific eye exercises.

You can get prism glasses for double vision. Rest your eyes from screens when necessary

Uveitis

It is estimated that this relatively rare condition could affect between one to three per cent of people with MS, which is approximately 10 times higher than in the general population (10). Uveitis is also known as iritis and is caused by inflammation affecting the uvea, the middle layer of the eye which is made up of the iris, ciliary body and choroid. Associated symptoms may include pain in the affected eye which worsens when reading, reduced or blurred vision, red or watery eyes, light sensitivity and flashes or dark spots appearing in the corners of the eye (11).

It is important that uveitis is diagnosed and treated with little delay to prevent further damage occurring to the affected areas. The treatment applied will vary depending upon the type of uveitis and its cause. However, it usually involves corticosteroid treatments to reduce the inflammation in the affected area (12).

As mentioned, there are different types of uveitis that affect the constituent parts of the uvea. One of these types is known as intermediate uveitis which specifically affects the ciliary body and vitreous gel, a fluid that is present around the eye. It mainly presents in the form of dots, lines and shapes, known as floaters, which affect the vision, and usually impacts both eyes (12). A recent study has found that while there is a connection between all types of uveitis and MS, people without MS who are affected by intermediate uveitis have a ten-fold increased prevalence of developing the condition during their lifetime. The study suggested that this may be a helpful indicator for clinicians when assessing the wider health of their patients, including their risk of developing MS (13).

More information

Olivia's Vision is a UK based charity that was created in 2010 as a point of information and support for people affected by uveitis.

Visit – www.oliviasvision.org

Email – contact@oliviasvision.org



I use magnifying glasses for close up work and always try to have a magnifying glass in my pocket if I'm out in order to read menus and so on



Dry eye syndrome

Dry eye syndrome occurs when our eyes do not make enough tears to effectively lubricate them, or indeed if the tears evaporate too quickly. It becomes more common with age, and it is estimated around one third of people aged 65 or older are impacted by it, to varying degrees (14).

While dry eyes are not commonly associated with MS, studies have shown that there is indeed a relationship between the two.

A recent small cross-sectional study found the eyes of participants who had received an MS diagnosis were half as moist in comparison

to those without the condition. Furthermore, the tears of the participants with MS broke up nearly twice as quickly as those in the non-MS group, meaning dry spots appeared on the corneal surface sooner, after blinking (15).

Even more recently another cross-sectional control study found similar results. The study involved 200 participants, half of them had received an MS diagnosis, the other half had not. The severity of dry eye syndrome in the MS group was greater than in the control group, however they found a significant relationship between increasing disability and abnormally dry eyes. This was particularly an issue for participants with MS who had an Expanded Disability Status Score (EDSS) score of four or over (16).

It is thought that dry eye syndrome is more common in people with MS due to the impact of inflammation and resultant damage to the corneal nerves. These nerves provide sensation to the cornea, supporting its growth and regular function. They also play a pivotal role in the blink reflex, wound healing, tear production and secretion (17).

Treatment for dry eye syndrome can include artificial tear drops which can be purchased over the counter, lubricating eye ointment or more specialist solutions such as punctal plugs in more chronic cases (13).



I undergo regular eye tests and use dry eye drops



Nutrition and eye health

As with many other aspects of our body's health, a balanced diet, rich in vitamins and minerals, can be instrumental in promoting and maintaining good eye health.

Vitamins A, C and E

The key vitamins for better eye health are antioxidants such as vitamins A, C and E, with each playing their own roles in preventing visual degeneration (18). These vitamins can all be consumed naturally via a variety of food sources. For instance, fruit and vegetables such as kale, carrots, spinach, broccoli, bell peppers and citrus fruits are great sources of vitamins A and C. Almonds, sunflower seeds, pine nuts and flaxseed oil are among the many natural sources of vitamin E that are readily available.



I tolerated it until diagnosis and then ate blueberries to reduce the inflammation. Now I have very rare occasional relapses with slight blurring



Vitamin D

This is an important nutrient which supports a healthy immune system, brain development and function and the cardiovascular

system. Vitamin D also helps the body to absorb calcium and phosphorus which are the building blocks for strong bones and teeth.

A study looking at the effect of vitamin D in recovery from acute episodes of optic neuritis in people with MS found a link between its severity and vitamin D levels. People with higher levels of vitamin D had less severe episodes of optic neuritis. However, there was no association with high vitamin D levels and a faster recovery from optic neuritis (19).

A recent systematic review of studies that were concerned with the relationship between vitamin D and ocular health found that deficiency in this nutrient can be linked to the onset of conditions such as myopia, dry eye syndrome and age-related macular degeneration, amongst others (20).

Good food sources of vitamin D include oily fish such as mackerel and salmon, egg yolks and mushrooms. Exposure to sunlight is an effective non-dietary way of ensuring that you get enough vitamin D.

Lutein and zeaxanthin

These are types of micronutrients which are derived from plants. They are a powerful form of antioxidant which our bodies do not produce naturally. When food containing lutein and zeaxanthin are consumed, these nutrients are transported to the macula, which is situated in the centre of the retina. It is thought that they then play a role in protecting the eyes from damage caused by light exposure. Studies have shown that they are particularly useful in minimising the progression of age-related macular degeneration (21).

Lutein and zeaxanthin are found in many fruits and vegetables such as bell peppers, kale, spinach, broccoli, and leafy greens. As mentioned previously, these types of food also provide natural sources of vitamins A, C and E.

Omega 3

This is a family of essential fatty acids, also known as polyunsaturated fats. While they have a positive impact on our general wellbeing, some studies have shown that they may help to improve eye health, particularly in relation to the impact of dry eyes (18).

In the UK there is no specific recommended dosage for omega 3. According to the British Dietetic Association (BDA) everyone should try to eat two portions of fish per week, one of which should be oily fish, to promote good general health and provide our bodies with a natural source of vitamins and minerals.

People who do not eat fish can get omega 3 from nuts and seeds such as walnuts and pumpkin seeds, vegetable oils such as rapeseed and linseed, soya and soya products in the form of milk and tofu, plus green leafy vegetables. Some foods have omega 3 added to them and so can be useful sources, especially for



If you're noticing something unusual no matter how slight get it checked out



vegetarians and others who avoid fish. These include eggs, yoghurt, bread, and spreads and can help to increase your omega 3 intake.

Eye tests

In the UK the NHS recommends people should have their eyes tested approximately every two years. This ensures that your eye health is checked regularly and any issues that require attention can be addressed without delay. Some people may be eligible for free NHS eye and sight tests (22). Currently Scotland is the only UK country that offers free universal NHS-funded eye tests.

More information

Our Diet and Supplements Choices booklet provides further reading on the link between what we eat and how it can be used to manage the impact of MS. Visit www.ms-uk.org/multiple-sclerosis-diet-and-supplements-choices-booklet

Our Vitamin D Choices booklet provides more detailed information on the benefits of vitamin D for people with MS. Visit www.ms-uk.org/vitamin-d-and-multiple-sclerosis-choices-booklet/

The one thing that kept me sane was using audio books from the library. I could put them on, lie in bed and doze or sleep. Particular narrators are very good for lulling you to sleep!

Further information

Royal National Institute of the Blind (RNIB)

Founded in 1868, the RNIB is a UK-based charity that provides support and information to people affected by sight problems, including their families, friends and carers.

Visit – www.rnib.org.uk

Call – 0303 123 9999

Email – helpline@rnib.org.uk

Thomas Pocklington Trust

A UK registered charity whose mission is to support blind and partially sighted people in their quest for equity and inclusion in all areas of society.

Visit – www.pocklington.org.uk

Call – 0208 995 0880

Email – info@pocklington.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

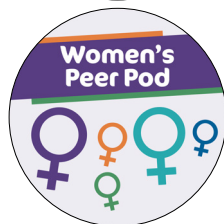
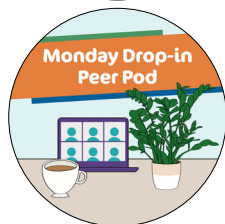
Our bi-monthly magazine, New Pathways, is full of the latest MS news regarding trials, drug development and research as well as competitions, special offers and product reviews. The magazine connects you to thousands of other people living with MS across the country.

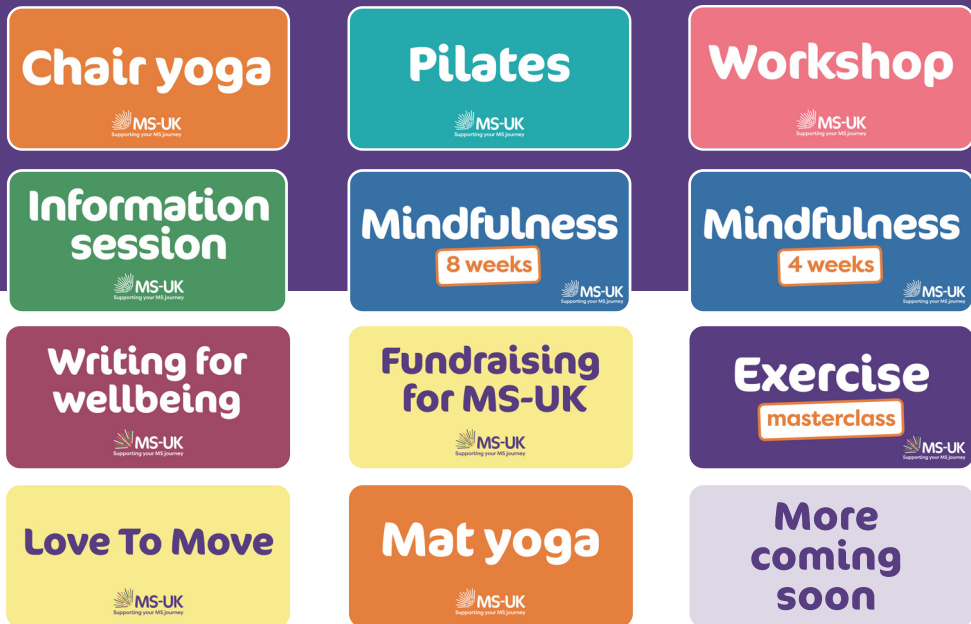
Available in print, audio version, large print and digitally.

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 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 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 an accredited eLearning course that can help you do this. Visit www.ms-uk.org/ms-awareness-e-learning to find out more.

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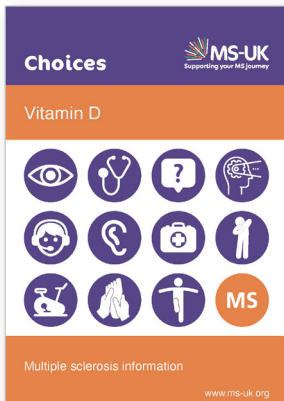
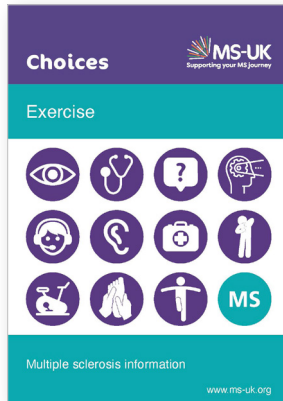
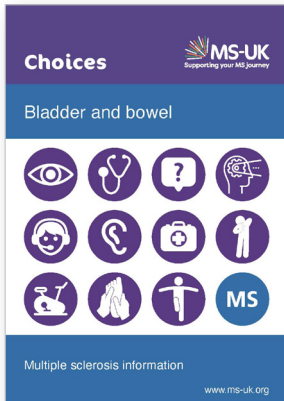
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www.ms-uk.org
MS-UK Helpline
0800 783 0518
info@ms-uk.org

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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.





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

www.ms-uk.org

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



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Registered Charity Number 1033731

VAT Number 632 2812 64

Registered Office D3 Knowledge Gateway,
Nesfield Road, Colchester, Essex, CO4 3ZL



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