

ORGANIZATION NEWS

Information/Education Page

Vision Problems in Multiple Sclerosis



Multiple sclerosis (MS) is caused by an overactive immune system, which results in scarring of the coating that surrounds the nerves (myelin) in the brain, eyes, and spinal cord. An estimated 1 million individuals in the United States and 2,500,000 worldwide live with MS. Many individuals with MS will at some point experience vision problems. These vision problems can be managed by medical and rehabilitation treatment. This Information/Education Page was developed to help individuals living with MS, their family, and caregivers to better understand vision problems that often appear during the course of the disease, as well as rehabilitation options to treat vision problems.

What are the common causes of vision problems in MS?

- Inflammation in various parts of the optic nerve (optic neuritis) and the pathways from the brain to the eyes and eye muscles cause the vision problems in MS.

Why is my vision impaired?

- Vision problems are common in MS.
- Vision problems may appear as a first symptom or during disease progression.
- Close to 40% of individuals with MS had optic neuritis as their first reported symptom,¹ and 70% of patients overall² have reported that decreased visual function negatively affects their quality of life.
- In the early stage, vision problems may resolve. However, as the disease progresses, individuals with MS may experience vision loss.

What are the common vision problems in MS?

- Blurry vision.
- Reduced ability to see differences in light (contrast vision).
- Reduced ability to see differences in color (color vision).
- Partial or complete loss of vision.
- Blind spots.
- Difficulty with tracking.
- Eye movement abnormalities such as jerky eye movements (nystagmus).
- Double vision (diplopia).
- Sensation of unstable visual world (oscillopsia).
- Nystagmus.

How can these vision problems affect day-to-day life?

Many of the vision problems in MS can make it more difficult to perform day-to-day activities.

For example:

- Focusing the eyes on objects close by and far away.
- Reading.
- Driving.
- Walking.
- Being able to move around the house.
- Getting dressed.
- Preparing meals.
- Being effective at work.
- Being involved with family or friends.

Who can help me with my vision problems?

Different specialists can help minimize the effect of visual problems individuals with MS experience:

- Neurologists who specialize in MS or eye problems (neuro-ophthalmologists) can identify the cause of the vision problems.
- Eye care specialists can help make eye muscles stronger (orthoptist) or prescribe special glasses to help with vision (optometrist), as well as using eye patches or prisms.
- Occupational therapists can help train vision or compensate for vision problems using functional tasks and exercises such as saccades (moving the eyes left and right, or up and down), pursuits (looking to an object moving) and convergence exercises (looking far and near).

What treatments are available?

Medical treatments for vision problems in MS

- Corticosteroids are the most common treatment given for acute symptoms of MS. For individuals whose visual recovery is poor or does not recover, a specific type of blood transfusion (plasmapheresis) may be considered.
- There are no federally (Food and Drug Administration) approved therapies for chronic vision problems in MS. However, visual training might help people with MS improve their vision.

Vision training

- Aims to increase functioning and safety in day-to-day life and activities.
- Includes strengthening the eye muscles that are weaker (eg, by using prisms or eye patches), rewiring the brain by retraining eye movements, and teaching compensatory strategies when unable to correct an issue that arises.
- Includes strategic scanning while walking or attempting to locate objects.
- Involves increasing smooth eye movements, fast eye movements used for activities such as reading and driving, and focusing on objects with the use of both eyes. Uses compensatory

interventions to restore or to compensate, depending on severity of symptoms.

Tips to reduce low vision challenges (visual problems that make it hard to do everyday activities)

- Use increased lighting and spot lighting with lamps.
- Learn how to increase text size and use zoom functions on your computer and other devices.
- Use magnification devices, consult with an occupational therapist for ideas on useful technology.
- Use computer audio and audio books or files for easier reading.
- Explore text-to-speech software.
- Eliminate tripping hazards in your home such as rugs, cords, and so on.
- People with MS can often experience other symptoms that may further affect their vision such as fatigue, neurofatigue, and lack of sleep. Treating and learning how to cope with these issues may be an essential addition to visual scanning strategies and overall training.

Resources for people with vision problems related with MS

- The National Multiple Sclerosis Society ([https://www.nationalmssociety.org/SymptomDiagnosis/MS-Symptoms/Vision-Problems](https://www.nationalmssociety.org/Symptom%20Diagnosis/MS-Symptoms/Vision-Problems)).
- National Association for the Visually Handicapped (888-205-5951; www.navh.org).
- Multiple Sclerosis Trust (<https://www.mstrust.org.uk/a-z/visual-problems>).
- Multiple Sclerosis Society of Canada (<https://mssociety.ca/about-ms/symptoms>).
- Multiple Sclerosis Australia (<https://www.msaustralia.org.au/publications/vision-and-ms>).

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