



National MS Society Information Sourcebook

www.nationalmssociety.org/sourcebook

Diagnosis of Demyelinating Diseases

There are a number of conditions that are classified as demyelinating diseases. In these conditions the myelin sheath (the fatty insulation covering the nerve fibers) becomes damaged or destroyed. Once damaged, the nerves are unable to properly perform their function of conducting electrical impulses.

Demyelination in the Central Nervous System

MS is the most common demyelinating disease. It affects only the myelin of the central nervous system—the brain, optic nerves, and spinal cord. Some other causes of central nervous system demyelination are viral infections, side effects from high exposure to certain toxic materials, severe vitamin B12 deficiency, autoimmune conditions that lead to inflammation of blood vessels (the “collagen-vascular diseases”), and some rare hereditary disorders.

Demyelination Can Occur In Peripheral Nervous System

The peripheral nervous system is composed of the nerves outside the brain and spinal cord. Demyelination of the peripheral nervous system can be found in diseases such as Guillain-Barré Syndrome. After some injuries, the myelin sheath in the peripheral nervous system regenerates, bringing recovery of function.

Not All Demyelinating Conditions Are Progressive

Some demyelinating conditions are self-limiting, while others may be progressive. Careful (and sometimes repetitive) examinations may be needed to establish an exact diagnosis among the possible causes of neurologic symptoms.

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See also...

Sourcebook

- Autoimmune Disease
- Cerebrospinal Fluid (CSF)
- Diagnosis
- Early Intervention (Disease Management Consensus Statement—Summary)
- Evoked Potentials
- Guillain-Barré Syndrome
- Lyme Disease
- Magnetic Resonance Imaging (MRI)

Society Web Resources

- Diagnosis of MS
www.nationalmssociety.org/Diagnosis
- For People Newly Diagnosed
www.nationalmssociety.org/NewlyDiagnosed

For Healthcare Professionals

- Disease Management Consensus Statement
www.nationalmssociety.org/ExpertOpinionPapers
- Tip Sheet: McDonald Diagnostic Criteria for MS
www.nationalmssociety.org/ClinicianResources

Books

Kalb R. (ed.). *Multiple Sclerosis: The Questions You Have; The Answers You Need* (3rd ed.). New York: Demos Medical Publishing, 2004
—Ch. 3 Neurology

Kalb R. (ed.). *Multiple Sclerosis: A Guide for Families* (3rd ed.). New York: Demos Medical Publishing, 2005
—Ch. 1 When MS Joins the Family

The National Multiple Sclerosis Society is proud to be a source of information about multiple sclerosis. Our comments are based on professional advice, published experience, and expert opinion, but do not represent individual therapeutic recommendations or prescription. For specific information and advice, consult your personal physician.

To contact your chapter, call **1-800-FIGHT-MS** (1-800-344-4867) or visit the National MS Society web site: www.nationalmssociety.org.