Incurable disorder of unknown cause in which there is degeneration of the myelin sheath that surrounds nerves in the brain and spinal cord. Striking mostly young adults, symptoms may include unsteadiness, loss of coordination, and speech and visual disturbances. MS sufferers typically have relapses and remissions over many years.

(MS), chronic, slowly progressive autoimmune disease in which the body's immune system attacks the protective myelin sheaths that surround the nerve cells of the brain and spinal cord (a process called demyelination), resulting in damaged areas that are unable to transmit nerve impulses. The disease also gradually damages the nerves themselves. There are elevated numbers of lymphocytes in the cerebral spinal fluid and of T cells in the blood (see immunity).

The onset of MS is usually at age 20 to 40 years, and its many symptoms affect almost every system of the body. There may be visual difficulties, emotional disturbances, speech disorders, convulsions, paralysis or numbness of various regions of the body, bladder disturbances, and muscular weakness. The course of the disease varies greatly from person to person. In some patients, the symptoms remit and return, sometimes at frequent intervals and sometimes after several years. In others the disease progresses steadily.

There is a genetic predisposition to MS, and environmental factors also seem to play some role. The disease is more common in temperate climates (1:2,000) than in the tropics (1:10,000).

There is no cure for MS, but a number of drugs—the first of which became available in the 1990s—can slow its underlying progress and/or reduce the frequency of attacks. These are beta interferon (a synthetic version of a natural substance produced by the immune system), glatiramer acetate, and natalizumab.

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