

Multiple Sclerosis

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Multiple Sclerosis (MS) is thought to be an **autoimmune disease** that affects the central nervous system (CNS) - **the brain, spinal cord and optic nerves**. Surrounding and protecting the nerve fibers of the CNS is a fatty tissue called myelin, which helps nerve fibers conduct electrical impulses. MS permits cells of the **immune system to attack myelin** causing loss in multiple areas which leaves scar tissue called sclerosis. When myelin is damaged, electrical impulses are disrupted and cannot travel quickly along nerve fiber pathways in the brain and spinal cord. These disruptions can result in disturbances in vision, strength, coordination, balance, sensations, and bladder and bowel function. The following are types and characteristics of MS:

- **Relapsing-Remitting**
Characteristics: People with this type of MS experience clearly defined flare-ups (also called relapses, attacks, or exacerbations). These are episodes of acute worsening of neurologic function. They are followed by partial or complete recovery periods (remissions) free of disease progression.
Frequency: Most common form of MS at time of initial diagnosis. Approximately 85%.
- **Primary-Progressive**
Characteristics: People with this type of MS experience a slow but nearly continuous worsening of their disease from the onset, with no distinct relapses or remissions. However, there are variations in rates of progression over time, occasional plateaus, and temporary minor improvements.
Frequency: Relatively rare. Approximately 10%.
- **Secondary-Progressive**
Characteristics: People with this type of MS experience an initial period of relapsing-remitting MS, followed by a steadily worsening disease course with or without occasional flare-ups, minor recoveries (remissions), or plateaus.
Frequency: 50% of people with relapsing-remitting MS developed this form of the disease within 10 years of their initial diagnosis, before introduction of the "disease-modifying" drugs. Long-term data are not yet available to demonstrate if this is significantly delayed by treatment.
- **Progressive-Relapsing**
Characteristics: People with this type of MS experience a steadily worsening disease from the onset but also have clear acute relapses (attacks or exacerbations), with or without recovery. In contrast to relapsing-remitting MS, the periods between relapses are characterized by continuing disease progression.
Frequency: Relatively rare. Approximately 5%

Additional statistics:

- Most people with MS are diagnosed between the ages of 20 and 50.
- **Twice as many women as men have MS.**
- Genetic factors may make certain individuals more susceptible, but no evidence exists that MS is directly inherited.
- MS occurs more commonly among people with **northern European ancestry**, but people of African, Asian, and Hispanic backgrounds are not immune.
- Most people with MS have a normal or near-normal life expectancy.
- The majority of people with MS **do not become severely disabled**.
- There are now **FDA-approved medications** that have been shown to "modify" or slow down the underlying course of MS.

Expert in Multiple Sclerosis? DSES is always looking for volunteers to help teach or give presentations!!

Resources and Additional Information

National Multiple Sclerosis Society: www.nationalmssociety.org