

Multiple Sclerosis

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Multiple sclerosis (MS) is a potentially disabling disease of the brain and spinal cord (central nervous system). In MS, the immune system attacks the protective sheath (myelin) that covers nerve fibers and causes communication problems between your brain and the rest of your body. Eventually, the disease can cause permanent damage or deterioration of the nerves. Signs and symptoms of MS vary widely and depend on the amount of nerve damage and which nerves are affected. Some people with severe MS may lose the ability to walk independently or at all, while others may experience long periods of remission without any new symptoms. There's no cure for multiple sclerosis. However, treatments can help speed recovery from attacks, modify the course of the disease and manage symptoms.

Symptoms:

Multiple sclerosis signs and symptoms may differ greatly from person to person and over the course of the disease depending on the location of affected nerve fibers. Symptoms often affect movement, such as:

- Numbness or weakness in one or more limbs that typically occurs on one side of your body at a time, or your legs and trunk
- Electric-shock sensations that occur with certain neck movements, especially bending the neck forward (Lhermitte sign)
- Tremor, lack of coordination or unsteady gait

Causes:

The cause of multiple sclerosis is unknown. It's considered an autoimmune disease in which the body's immune system attacks its own tissues. In the case of MS, this immune system malfunction destroys the fatty substance that coats and protects nerve fibers in the brain and spinal cord (myelin). Myelin can be compared to the insulation coating on electrical wires. When the protective myelin is damaged and the nerve fiber is exposed, the messages that travel along that nerve fiber may be slowed or blocked. It isn't clear why MS develops in some people and not others. A combination of genetics and environmental factors appears to be responsible.

Treatment:

There is no cure for MS, but treatment is available that can slow the progression and reduce the number and severity of relapses and relieve symptoms. Some people also use complementary and alternative therapies, but research does not always confirm the usefulness of these. Several disease-modifying therapies (DMTs) have approval from the Food and Drug Administration (FDA) for the relapsing forms of MS. These work by changing the way the immune system functions.