

Multiple sclerosis essay

[Countries](#), [Canada](#)



Multiple sclerosis is a chronic, progressive neurological disease affecting all aspects of life: physical, cognitive, emotional, and social (Abma).

It is known as an autoimmune disease, where the body's immune system turns against the body and destroys the protective covering that surrounds nerve cells. This damage to the nerve cells causes many problems for the patient including weakness, muscle stiffness, poor coordination and balance, tingling, numbness, tremors, blurred vision, slurred speech, and memory and concentration problems (Bren). There are three different versions of multiple sclerosis ("What is MS?"). The least severe being relapsing-remitting; this occurs when a person has an attack and then there are no further symptoms until there is a relapse or another flare up of the disease (Bren). The next kind is called primary progressive; this is where the disease and the symptoms just worsen with time, each attack building on the previous (Bren). The final type is secondary progressive and this is a combination of relapsing-remitting first which eventually will become progressive (Bren). There is an organization where people can get help for their multiple sclerosis, The National Multiple Sclerosis Society. It was founded in 1946 by Sylvia Lawry and has over 135 chapters throughout the United States (Bartlett).

The National Multiple Sclerosis Society funds many programs for people with multiple sclerosis including counseling, support groups, assistance with medical equipment, and an information center, which publishes educational material on a variety of topics (Bartlett). The National Multiple Sclerosis Society also has offices in Washington D. C. and trained employees; this way there are people in Washington who can try to make new laws and

regulations, which would benefit the disabled (Bartlett). The National Multiple Sclerosis Society relies on donations to run, and the majority of the money received goes towards research (Bartlett). Of the money donated to The National Multiple Sclerosis Society towards research, 46% of the funds go towards research for a cause, 45% goes to cure research, and 9% goes to other research (The National Multiple Sclerosis Society).

More money is desperately needed to continue the research that is currently being conducted, to begin research in areas that have not been researched yet, and to teach the importance of research. Multiple sclerosis, or MS, is a disease of the central nervous system. The central nervous system is made up of the brain and spinal cord. Both have nerve fibers that are wrapped in a myelin sheath. In MS, the myelin sheath becomes inflamed and gradually is destroyed. With the destruction of the myelin sheath comes an array of symptoms that may include numbness or tingling, balance problems, weakness, muscle spasms, and blurred vision. Anyone can develop MS, but many patients share the following characteristics.

The majority experiences their first symptoms between ages 20 and 40. Caucasians are more than twice as likely as other races to develop MS. MS is two to three times more common in women as in men. MS is five times more common in temperate climates like those of the northern US, Canada, and Europe. And people whose close relatives have MS are more susceptible to developing the disease, but there is no evidence the disease is directly inherited. No single test detects MS, which makes it difficult to diagnose. Symptoms can mimic those of a number of other conditions and they can

change depending on the area of the central nervous system that loses myelin.

Some symptoms of MS are numbness or tingling in parts of the body, usually an arm or leg, unexplained weakness, dizziness, and fatigue, and blurry vision, double vision or blindness. To diagnose the disease, healthcare providers use a number of tools and tests to help rule out other causes. The first is medical history. In this procedure, the doctor asks about personal and family health history.

The doctor also questions the patient about the symptoms, their duration, and their onset. In a Physical examination, the doctor runs tests that will determine the health of nerves and muscles. Doctors will also look for weakness in specific parts of the body. In a MRI, a patient's body is placed within a magnetic field and scanned by radio waves. Doctors also take pictures of the brain or spine to see if there are any patches or scars on the myelin sheath.

In CSF collection, the doctor will take a sample of the patient's spinal fluid. Then doctors study the sample for abnormalities like an increase of white blood cells and high amounts of immunoglobulin G. In ERTs, doctors attach wires to a patients scalp. Then doctors can measure the speed of visual, hearing, and sensory pathways and can detect damaged areas of the brain. The course of the disease is also uncertain. In general, though, the disease follows several known patterns. These patterns are grouped under the heading " chronic progressive MS. " Relapsing-remitting MS is a form of MS

in which patients experience series of actively symptomatic periods called attacks followed by remissions.

Secondary-progressive MS begins after RRMS. This disease advances progressively, marked by acute attacks. Primary-progressive MS is marked by a gradual worsening of symptoms, but the attacks are not acute. Patients may have temporary plateaus that lessen the symptoms somewhat.

In progressive-relapsing MS, patients experience gradual progression of the disease that is accompanied by acute attacks. MS is treated with disease-modifying drugs, such as, interferon beta 1-A (Avonex, Rebif), interferon beta 1-B (Betaseron), and glatiramer acetate (Copaxone). These medications reduce the severity of the attacks and may slow the onset of disability, but these drugs have potentially serious side effects. Steroids reduce inflammation and manage acute attacks. Commonly prescribed steroids are dexamethasone, methylprednisolone, and prednisone.

These drugs have serious side effects. In plasma exchange, doctors replace the liquid part of a patient's blood with another fluid. This process has had mixed success with primary and secondary-progressive MS. Complementary and alternative therapies have been known to lessen symptoms of the disease. Some treatments are supplementing vitamin D and antioxidant vitamins and diets low in saturated fat and high in certain fatty acids. Future treatments include immunotherapy, remyelination, and manipulating the immune system. In immunotherapy, researchers have been studying whether drugs and techniques that suppress the immune system can control the course of the disease.

The drugs and therapies have serious side effects because messing with the immune system may leave the patient open to infections. Remyelination involves reversing damage to the myelin sheath and stimulating new growth. In manipulating the immune system, involves destroying and disabling the cells that attack myelin.