

ALS stands for Amyotrophic Lateral Sclerosis, also known as Lou Gehrig's disease. It is a rapidly progressive and invariably fatal neurological disease that attacks the nerve cells (neurons) responsible for controlling voluntary muscles. Voluntary muscles are those muscles which are under control of the will, and are usually attached to the skeleton. The degeneration caused by ALS leads to progressive paralysis of these muscles. Eventually, all muscles under voluntary control are affected and individuals lose their strength and ability to move their arms, legs and body. Breathing is controlled by voluntary chest muscles. Death usually occurs when the chest muscles can no longer assist the lungs to adequately expel carbon dioxide. Most people with ALS die from respiratory failure.

With approximately 2,500 to 3,000 Canadians currently diagnosed with ALS, this is not considered a rare disease. ALS most commonly strikes individuals between the ages 40 and 60 years of age. Men are affected more often than women. About 5 to 10 per cent of all ALS cases are inherited.

The cause is still unknown but research is continuous in areas related to genetic predisposition, viral or infectious agents, environmental toxins, and immunological changes related to the disease. For most people, the battle with ALS is short with 80 per cent losing their lives within two to five years of diagnosis. Approximately 10 per cent of ALS patients survive for 10 years or more.

## Signs and Symptoms

The onset of ALS can be very subtle and the symptoms overlooked. The earliest symptoms may include twitching, cramping, or stiffness of muscles; muscle weakness affecting an arm or a leg; slurred and nasal speech; or difficulty chewing or swallowing. These general complaints then develop into more obvious weakness or muscle wasting that may cause a physician to consider ALS.

The parts of the body affected by early symptoms of ALS depend on which muscles in the body are damaged first. If symptoms initially affect one of the legs, patients experience difficulty walking or running or they may trip or stumble more often. Some patients notice the effects of the disease in a hand or arm and encounter difficulty with activities that require fine dexterity such as buttoning a shirt, writing, or turning a key in a lock. Other patients notice speech problems and may start slurring their words.

Regardless of the part of the body first affected by ALS, muscle weakness and degeneration spread to other parts of the body as the disease progresses. Patients have increasing problems with moving, swallowing, and speaking or forming words.

Disease progression varies from person to person. Eventually however, those affected will not be able to stand or walk, get in or out of bed on their own, or use their hands and arms. Difficulty swallowing and chewing impair the patient's ability to eat normally and

increase the risk of choking. Maintaining a healthy weight and getting adequate nutrition then become a problem. Because the disease usually does not affect cognitive abilities, patients are aware of their progressive loss of function and may experience anxiety and depression. In advanced stages of the disease, patients have difficulty breathing as the muscles of the respiratory system weaken. Patients eventually lose the ability to breathe independently and must depend on ventilator support for survival.

## Diagnosis

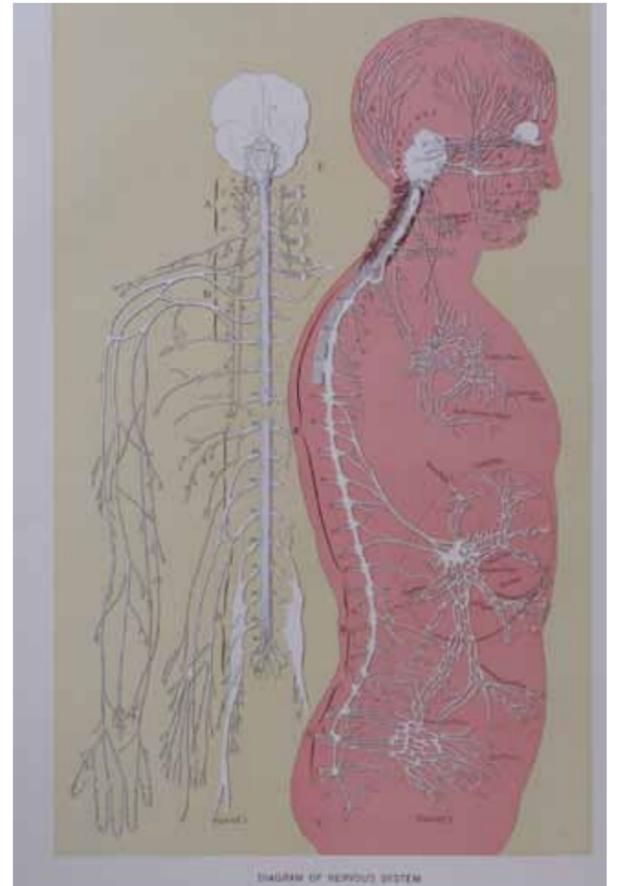
ALS is very difficult to diagnose. No one test can provide a definitive diagnosis of ALS. Diagnosis is based on signs and symptoms and a series of tests to rule out other diseases with similar symptoms such as stroke, multiple sclerosis or Lyme disease. If a person tests negative for all these tests but symptoms continue to get worse, then a diagnosis of ALS is often made.

## Hope for the future

At this time there is no known cure for the disease and limited treatment options. With continued education, Nova Scotians can help support and improve the quality of life of those

affected by ALS and their families. Communication and regular visits with a doctor, physiotherapist and occupational therapist can help sufferers cope with the declining function and life changes related to this disease.

For more information about ALS, contact the ALS Society of Nova Scotia, the ALS Society of Canada ([www.als.ca](http://www.als.ca)), or the National Institute of Neurological Disorders and Stroke at [www.ninds.nih.gov](http://www.ninds.nih.gov). If you are looking for assistance in managing this or other medical conditions, and are uncertain where to turn, feel free to contact the NSTU's Early Intervention Program for Teachers for support and guidance.



## did you KNOW?

The Early Intervention Program (EIP) invites NSTU members to sign up for our Wellness email list at [Be\\_Well@nstu.ca](mailto:Be_Well@nstu.ca).

Please contact Erin at [ekeefe@staff.nstu.ca](mailto:ekeefe@staff.nstu.ca) to provide her with your NSTU email address. The [Be\\_Well@nstu.ca](mailto:Be_Well@nstu.ca) list will provide information about the EIP and other wellness topics.



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