

# MS 101

## SIGNS & SYMPTOMS

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Multiple sclerosis (MS) is thought to be an autoimmune disease of the central nervous system (brain, spinal cord). The disease attacks myelin, the protective covering of the nerves, causing inflammation and often damaging the myelin. Without myelin the communication between nerve cells is disrupted, and the body does not receive the instructions necessary to perform basic functions like speaking, seeing, walking and learning. Myelin damage can also lead to deterioration of the exposed nerves, resulting in irreversible damage to them.

## ABOUT MS:

Canada has the highest rate of multiple sclerosis (MS) in the world, with an estimated 1 in 340 Canadians living with the disease. While it is most often diagnosed in young adults, aged 15 to 40, we know that it can affect younger children and older adults.

MS is thought to be an autoimmune disease, which means the immune system - designed to protect against intruders such as viruses and bacteria - attacks tissues in the body. In the case of MS, the tissue that is targeted is myelin.

MS is unpredictable and its effects can be physical, emotional and financial.

## WHAT CAUSES MS?

Despite decades of research, the cause remains a mystery. The best current evidence suggests that lifestyle, environmental (i.e. Vitamin D), genetic and biological factors all contribute. All these areas are being actively examined. Studies funded by the MS Society are asking if certain risk factors, such as gender, age, family history or lifestyle habits impact a person's susceptibility to MS.

## IS MS FATAL?

No. MS is not fatal for the vast majority of people living with the disease. Most people who have MS can expect a normal or near-normal lifespan, thanks to improvements in symptom management and the MS disease-modifying therapies.

## Everyone's experience with MS is different.

### **Relapsing Remitting MS (RRMS):**

Characterized by unpredictable but clearly defined periods during which symptoms are apparent. Relapses can last for varying periods (from a few days to several months) and are followed by periods of recovery, or 'remission' during which many functions return.

**Progressive MS (PMS):** Some people with RRMS will eventually transition to a state in which relapses and remissions no longer occur. Symptoms may persist and disability slowly and continually increases.

**Progressive Relapsing MS:** People with this form of MS experience steadily worsening disease from the beginning, but also experience relapses with or without recovery.

## SYMPTOMS:

Symptoms of MS are unpredictable and vary greatly from person to person, and can fluctuate within the same person from one time to the next. MS symptoms depend upon what part or parts of the central nervous system are affected during an MS attack. Not all people with MS will experience all symptoms and often the symptoms will improve during periods of remission.

## IS THERE HOPE FOR A CURE?

Absolutely. Researchers are zeroing in on what causes MS and exploring ways to repair the damage it causes and ways to prevent MS from occurring. The MS Society of Canada and its related MS Scientific Research Foundation fund investigation into many aspects of the disease including: progression/therapies, cause/risk factors, nerve damage/repair and symptom management/quality of life.

## NEED MORE INFO?

Access to accurate, current and comprehensive information in a number of formats online at [www.mssociety.ca](http://www.mssociety.ca).

