

# Multiple Sclerosis in Canada



Multiple sclerosis (MS) is a chronic autoimmune disease of the central nervous system (CNS). The immune system attacks myelin (protective covering of the nerves) in the brain, spinal cord, and optic nerves. This disrupts communication between the CNS and the rest of the body. The course of MS is unpredictable, often occurring in a pattern of relapses and remissions.<sup>1</sup>

## Symptoms may include:<sup>1</sup>



**Walking difficulties/ weakness/lack of coordination**



**Vision problems**



**Pain/tingling/ numbness**



**Fatigue**



**Mood disorders/ cognitive changes**



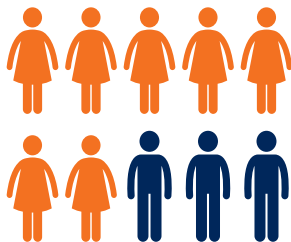
**Bladder and bowel dysfunction**

**The causes of MS are not fully understood**, but genetics combined with other factors such as those related to lifestyle (e.g., smoking, obesity) and environment (e.g., lack of vitamin D) may play a role.<sup>1</sup>

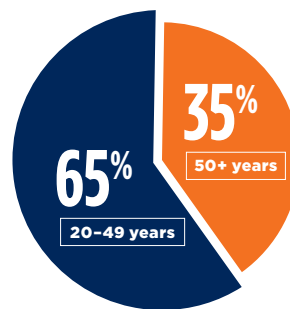
## Data (fiscal year 2021–2022)\* show that:

**290 out of every 100,000** Canadians aged 20+ years live with MS.

Of them, **7 out of 10** are women.



MS can be diagnosed at any age, but typically in early adulthood.<sup>2</sup>



Among adults, about **65%** of new diagnoses occurred in Canadians aged **20–49 years**.

## Between 2011–2012 and 2021–2022:\*



- ▶ Taking into account the aging of the population over time, the proportion of Canadians living with MS increased by an average of **1.5% per year** (0.25% to 0.29%), but the rate of new cases did not increase.
- ▶ This suggests that Canadians are diagnosed at a younger age, have a longer life expectancy, or both.

There is currently no cure for MS. However, with early diagnosis and treatment, it is possible to decrease the frequency and severity of relapses, delay disease disability and progression as well as to manage symptoms and improve functions in people affected.<sup>3</sup>

## LEARN MORE ABOUT MS:

**VISIT** Multiple Sclerosis  
**GET DATA** Health Infobase  
**MORE** Multiple Sclerosis Society of Canada; Multiple Sclerosis International Federation

**ACKNOWLEDGEMENTS:** This work was made possible through collaboration between the Public Health Agency of Canada (PHAC) and all Canadian provincial and territorial governments, and expert contribution from the Canadian Chronic Disease Surveillance System (CCDSS) Neurological Conditions working group. This infographic was developed by PHAC; no endorsement by the provinces and territories is intended.

### REFERENCES AND NOTES:

- \* Canadian Chronic Disease Surveillance System (CCDSS) 2023. Multiple Sclerosis (age 20+). Quebec, Northwest Territories, and Yukon data were not available. New Brunswick and Saskatchewan data were not available for 2021–2022. Many CCDSS measures were influenced by the COVID-19 pandemic in 2021–2022 and should be interpreted with caution.
- 1 McGinley MP, Goldschmidt CH, Rae-Grant AD. Diagnosis and treatment of multiple sclerosis: a review. JAMA [Internet]. 2021 Feb [cited 2022 January 31]; 325(8):765–79. Available from: <https://jamanetwork.com/journals/jama/fullarticle/2776694>.
- 2 Marrie RA, O'Mahony J, Maxwell C, Ling V, Yeh EA, Arnold DL, Bar-Or A, Banwell B, Canadian Pediatric Demyelinating Disease Network. Incidence and prevalence of MS in children: a population-based study in Ontario, Canada. Neurology [Internet]. 2018 Oct [cited 2022 January 31]; 91(17):e1579–90. Available from: <https://n.neurology.org/content/91/17/e1579>.
- 3 Comi G, Radaelli M, Sørensen PS. Evolving concepts in the treatment of relapsing multiple sclerosis. The Lancet [Internet]. 2017 Apr [cited 2022 January 31]; 389(10076):1347–56. Available from: <https://www.sciencedirect.com/science/article/pii/S0140673616323881>.

