



FACT SHEET: Stroke Statistics

Stroke is a syndrome caused by a disruption in blood flow to a part of the brain. It occurs when the blood vessel either ruptures or becomes blocked. A stroke deprives the neurons and other brain cells of glucose and oxygen, which leads to cell death. The longer the brain is deprived of oxygen and nutrients, the higher the likelihood of permanent damage to the brain.

Stroke results in lost or impaired function.

Stroke is preventable and treatable.

Stroke prevention, care, rehabilitation and reintegration: priorities

- Ontario's population will grow by 34.4 per cent between 2010 and 2036.
- In 10 years, almost one in five Ontarians will be over 65, an increase of 37.5 per cent since 2005.
- Almost 80 per cent of Ontarians over 45 have a chronic condition.
- Diabetes and obesity are on the rise among younger Ontarians.
- More than 7% of Ontarians report having diabetes and 52.6 % report being overweight or obese and 17.6% report having high blood pressure ...and all of these risk factors are on the rise (2010 Canadian Community Health Survey).

Who is at risk?

Stroke Risk Factors you can't control¹:

- **Age** - Your chances of having a stroke go up as you get older. Two thirds of strokes occur among people over 65. After age 55, the risk of stroke doubles every 10 years.
- **Gender** - Men have a slightly higher stroke risk than women. However, more women than men die from strokes because they tend to live longer than men.
- **Ethnic origin** - Canadians of First Nations/Aboriginal peoples and Canadians of African, Hispanic and South Asian descent have higher rates of high blood pressure and diabetes, which are conditions that can lead to stroke.
- **Family history** - Your risk is higher if your immediate family members (grandparents, parents or siblings) had a stroke before they were 65.
- **Prior stroke or mini-stroke** (transient ischemic attack/TIA) - Up to a third of people who survive a first stroke or mini-stroke (TIA) have another stroke within 5 years. A stroke survivor has a 20 per cent chance of having another stroke within two years.

¹ <http://www.phac-aspc.gc.ca/index-eng.php>



Stroke Risk Factors you can control¹:

- **High blood pressure** - accounts for 35-50% of stroke risk. Almost 20% of Canadians have high blood pressure.
- **High blood cholesterol** - The link between high cholesterol and stroke isn't as clear as the link between high cholesterol and heart attacks. However, researchers believe that high blood cholesterol can play a part in blocking the arteries leading to the brain.
- **Irregular heartbeat (Atrial Fibrillation/AF)** – those with AF are 5 times more likely to have a stroke and about 15% of stroke patients have AF.
- **Diabetes** - patients with diabetes are 2 to 3 times more likely to develop stroke. Almost 20% of people who have a stroke are diabetic.
- **Drug Abuse**- The use of illicit drugs such as cocaine and crack cocaine can cause a stroke. These drugs can cause narrowing of blood vessels resulting in less blood flow to the brain. Cocaine also affects the heart, causing abnormal heart rhythm and rapid heart rate that can lead to the formation of blood clots. Strokes caused by drug abuse are often seen in a younger population.
- **Overweight** – particularly those who have “central obesity” where extra weight is carried around the hips. Men with waist circumference of 40 inches or more and women with waist circumference of 35 inches or higher are at particularly high risk of stroke.
- **Physical inactivity** - people who exercise 5 or more times per week have a reduced stroke risk.
- **Alcohol consumption** – the link to stroke is not entirely clear however, in some studies, excessive alcohol consumption has been negatively linked to stroke.
- **Smoking** – doubles the risk of stroke. Quitting will significantly reduce the risk within two years. Within five years, your risk will be the same as someone who never smoked.
- **Diet** - eating a heart-healthy diet can reduce your risk of heart disease or stroke by 80%.
- **Sleep Apnea** -People with sleep apnea are approximately 1.6-2.7² ³times more at risk to have a stroke. Several studies have shown a link between people with sleep apnea who go on to have a stroke and also those people who have had a stroke that show a higher incidence of sleep apnea after the stroke. There is also evidence that stroke patients with obstructive sleep apnea appear to have increased risk of death if the sleep apnea is untreated.
- **Stress/Depression** – There is a growing body of research showing a link between stress and stroke. Stress is linked with stroke risk factors including, high blood pressure, smoking and being overweight. Research is also showing that depression is associated with a significantly increased risk of stroke morbidity and mortality⁴.

² Johansson et al. Sleep disordered breathing in community dwelling elderly: Associations with cardiovascular disease, impaired systolic function and mortality. *Sleep Medicine* 2011;12(8):748-753

³ Redline et al. Obstructive sleep apnea-hypopnea and incident stroke: The Sleep Heart Study. *American Journal of Respiratory and Critical Care Medicine* 2010;182(2):269-277

⁴ Pan A et al. Depression and Risk of Stroke Morbidity and Mortality: A Meta-analysis and Systematic Review *JAMA*. 2011; 306 (11):1241-1249.



ontario stroke network

Advancing the Ontario Stroke System

The Impact of Stroke in Ontario:

- Stroke is the third leading cause of death and the leading cause of adult disability.
- More women than men die from stroke.
- More women die of stroke than breast cancer.
- There are an estimated 25,500 new stroke events in Ontario 15,500 hospital inpatient admissions, every year.
- At least every 30 minutes, there is one new stroke victim in Ontario.
- More than 5,500 (22%) of Ontarians die within one year of their stroke.
- The burden of those living with stroke is almost \$1 billion annually.
- One in five residents in long-term care has had a stroke.

The Impact of Stroke in Canada:

- Stroke is the leading cause of adult disability in Canada and the third leading cause of death. Every year, nearly 14,000 Canadians die from stroke.
- Every year in Canada, there are over 50,000 new strokes—that's one stroke every 10 minutes.
- About 300,000 Canadians are living with the effects of stroke.
- Canadians spend a total of three million days in hospital because of stroke every year.
- Stroke costs the Canadian economy more than \$3.6 billion a year in physician services, hospital costs, lost wages, and decrease productivity.

Recovery:

Of every 100 people who have a stroke:

- 15 die (15%)
- 40 are left with a moderate to severe impairment (40%)
- 10 are so severely disabled they require long-term care (10%)
- 25 recover with a minor impairment or disability (25%)
- 10 recover completely (10%)

For more information and guidelines on healthy eating see [Canada's Food Guide to Healthy Eating](#) and for physical activity see [Canada's Physical Activity Guide to Healthy Active Living](#)

For more information about stroke, visit The Ontario Stroke Network at www.ontariostrokenetwork.ca