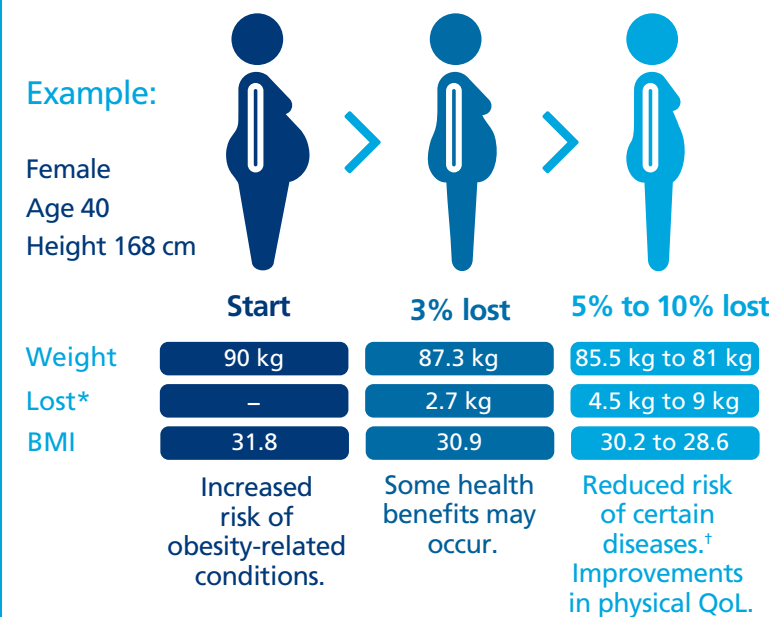


Substantial benefits associated with weight loss.

“The first goal is to STABILIZE weight and PREVENT further weight gain. Substantial health benefits can be derived with MODEST (5–10%) weight loss.”—CON (Canadian Obesity Network)¹

Weight loss in people living with obesity



Potential benefits of 5–10% weight loss include:

- ↓ **58% reduction** in the risk of developing type 2 diabetes¹⁹
- ↑ **Improved** glycemic control²⁰
 - **0.5% reduction** in A1C²¹
 - **1.1 mmol/L reduction** in fasting blood glucose²¹
- ↓ **Reduced** blood pressure²⁰
- ↓ **Reduced** cholesterol levels²⁰
- ↓ **30% decrease** in sleep apnea symptoms¹⁴
 - Reduced frequency of sleep apnea, improved sleep quality and reduced daytime somnolence²⁰
- ↑ **Improved** health-related quality of life (HRQoL) in people living with obesity, particularly physical aspects²²
- ↓ **Alleviated** osteoarthritis, and back and joint pain²⁰
- ↑ **Improved** lung function and breathlessness²⁰

* Weight lost from start. † Diabetes, cardiovascular.
Example for illustrative purposes only.

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The weight of obesity in Canada.

Obesity—a chronic disease.

“Obesity is a chronic and often progressive condition not unlike diabetes or hypertension.”

—CON (Canadian Obesity Network)¹

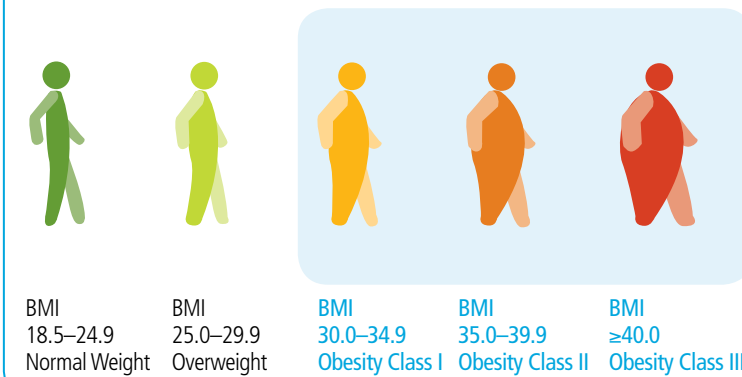
“[Obesity] must be viewed as a chronic disorder that essentially requires perpetual care, support, and follow-up.”

—AACE (American Association of Clinical Endocrinologists)²

“It is important for health care providers to recognize obesity as a disease so preventive measures can be put in place...”

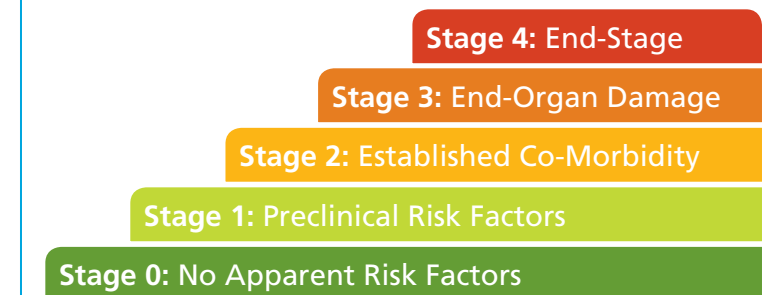
—CMA (Canadian Medical Association)³

Obesity Class (I–III) is based on BMI and is a measure of height relative to weight.¹

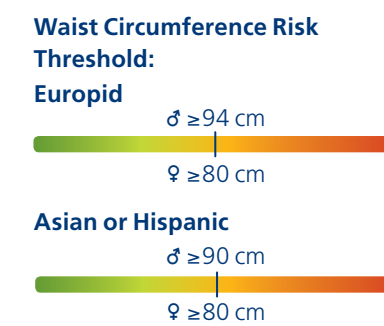


Body Mass Index (BMI) = Weight (kg)/Height (m)²

Obesity Stage (Edmonton Obesity Staging System, EOSS) is based on the medical, mental, and functional impact of obesity and is a measure of how healthy the person is.¹



Waist circumference provides additional information regarding cardiometabolic risk.¹



BMI is a measure of a person's size. To determine a person's overall health, the Edmonton Obesity Staging System helps clinicians grade obesity based on simple criteria obtained from medical history, physical examination and standard diagnostic tests.⁴

Obesity is highly prevalent in Canada.

3x

Three-fold increase in self-reported prevalence from 1985⁵



1 in 4

Canadian adults were obese as of 2013⁶



1 in 9

Canadian adults had class II or III obesity (BMI ≥35 kg/m²) as of 2013⁶

The weight of obesity on Canadians.

Obesity is a complex and multifactorial disease with a substantial personal impact.

Life expectancy decreases with increasing BMI

Compared to an overweight person, class I obesity is associated with a:

- 60–120%** increased diabetic, renal, and hepatic mortality
- 40%** increased vascular mortality
- 20%** increased respiratory mortality

AN ESTIMATED
10,648
PREMATURE DEATHS
occurred in Canada in 2011 as a direct consequence of obesity.⁸



Compared to a woman aged 20–39 with a normal BMI (<25 kg/m²), the predicted lifespan is:⁹

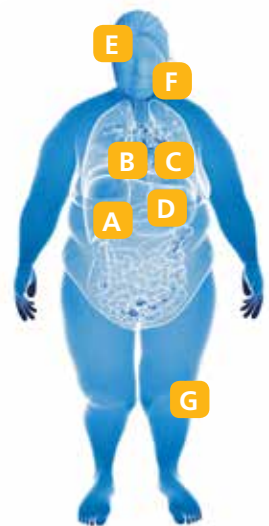
5.6 years less with class I obesity (BMI of 30 to 35 kg/m²)
6.1 years less with class II–III obesity (BMI ≥35 kg/m²)



Compared to a man aged 20–39 with a normal BMI (<25 kg/m²), the predicted lifespan is:⁹

5.9 years less with class I obesity (BMI of 30 to 35 kg/m²)
8.4 years less with class II–III obesity (BMI ≥35 kg/m²)

Adapted from Grover SA, et al. Estimation of the years of life lost for people with class I, II, or III obesity compared to a normal BMI (18.5–25 kg/m²) based on a disease-simulation model. Data are based on cardiometabolic risk factors in US adults in the National Health Examinations and Nutrition Survey data from 2003–10.



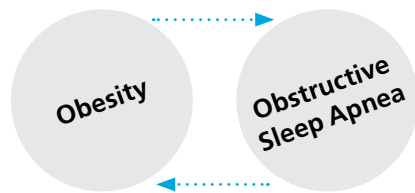
Studies have shown various health consequences of class II obesity:^{10–12}

- A** **5–8 times** greater prevalence of type 2 diabetes¹⁰
- B** **2-fold** greater prevalence of hypertension¹⁰
- C** **2–3 times** greater prevalence of coronary heart disease¹⁰
- D** **1.3 times** greater prevalence of dyslipidemia¹⁰
- E** **5-fold** greater risk of major depression¹¹
- F** **>17 times** greater prevalence of sleep apnea¹²
- G** **2–3 times** greater prevalence of osteoarthritis¹⁰

Multiple chronic diseases are associated with obesity.¹³

Did you know? The obesity cycle—Reciprocal link between obstructive sleep apnea and obesity¹⁴

10% increase in body weight = **6-fold** risk of developing obstructive sleep apnea



Obstructive sleep apnea may predispose to worsening obesity through:

- Sleep deprivation
- Daytime somnolence
- Metabolic disruptions

Canadians with obstructive sleep apnea are more likely to have diabetes, hypertension, heart disease and mood disorders.¹⁵

Obesity and its complications have a significant burden on people with obesity, their families, and their caregivers.

The economic weight of obesity in Canada.

Conditions associated with obesity have a substantial economic cost.

THE ANNUAL ECONOMIC BURDEN OF OBESITY IN CANADA WAS

\$7.1 billion in 2006.^{8,16}

\$3.9 billion

DIRECT COSTS

to the healthcare system
(e.g., hospitalizations, medications, physician and emergency room visits)

\$3.2 billion

INDIRECT COSTS

(e.g., costs related to disability and lost productivity due to illness or premature death)

Obesity was also responsible for high costs associated with its comorbidities¹⁶



Days missed from work (absenteeism) and working at less than full capacity (presenteeism) were more common for people with obesity, and were at a cost to both employees (in lost wages) and employers (in work not completed)^{17,18}

