



In this newsletter, you will learn about what obesity is, what causes it, and its impact on Canadians.

What is obesity?

Obesity is a **chronic disease** that can get worse over time—similar to conditions like high blood pressure or diabetes. It is known as a disease involving extra or abnormal body fat that affects your health, and is classified as having a BMI (body mass index) of $\geq 30 \text{ kg/m}^2$.^{1,2}



How do you calculate Body Mass Index (BMI)?
 $\text{BMI} = \text{Weight (kg)} / \text{Height (m)}^2$

Obesity is a complex disease linked to many serious complications, including type 2 diabetes, cardiovascular disease, sleep disorders, mental health issues, and some cancers.³

Around the world, medical associations like the World Health Organization have recognized obesity as a chronic disease



“Obesity is a chronic disease, prevalent in both developed and developing countries, and affecting children as well as adults.”
 —The World Health Organization⁴

Remember, obesity is a chronic disease, so managing obesity is a life-long process—just like any other chronic condition.⁵

There is more to losing weight than just willpower...

Obesity has many contributing factors^{1,2}



Environmental
 Aspects of our surroundings can contribute to the development of obesity, including easy access to unhealthy or oversized food portions, and occupations that require being seated most of the time.^{6,7}



Genetic
 Some people are more likely to have obesity based on their genes and family history.⁶



Physiological
 The imbalance of energy taken in (eating) compared to energy out (physical activity) can contribute to obesity.⁶ Everyone's metabolism is different, meaning energy intake vs output can vary from person to person.⁸



Psychological
 Stress, boredom, tiredness, and mental conditions, such as depression, may be linked to developing obesity.^{6,9-11}



Socio-economic
 Lower household incomes and people in lower education levels are more likely to develop obesity.¹²

The number of Canadians with obesity is growing



3 times more Canadians with obesity since 1985.¹³



In 2016 and 2017, close to **two out of three** adult Canadians reported carrying excess weight.¹⁴



Obesity affects people of all ages. In fact, childhood obesity is on the rise and has **doubled** over the past 40 years. Since the amount of body fat changes as they grow, a child's BMI or weight category (underweight, healthy weight, overweight or obese) is determined by their weight, height, gender, and age.¹⁵

As of 2016, approximately **1 in 3** Canadian children were considered to have excess weight. This can increase their risk of developing obesity and other conditions as they age.^{16,17}



By 2030, **>30%** of Canadian adults are expected to have obesity.¹⁸

Hear from someone living with obesity

“Obesity is a medical condition that gets between a person and the life they can lead if they are not carrying that extra weight around... it's no different than if a person has diabetes”

As the rate of obesity **continues** to rise in Canada, it is time to take action to help people understand that living with this complex disease is not their fault but requires proper treatment and care.¹⁹

Want to learn more?

For additional information about obesity and available resources:



Visit Obesity Canada



Speak to your healthcare professional



Contact your human resources department



We want to hear from you!
 Email us at NNCICustomerCare@novonordisk.com to share your ideas and public health perspectives.

Next time, we'll find out more about weight bias, stigma, and discrimination and how they affect people living with obesity.

References: 1. Mayo Clinic. Obesity. 2015. Available at: <https://www.mayoclinic.org/diseases-conditions/obesity/symptoms-causes/syc-20375742>. Retrieved July 10, 2019. 2. Pi-Sunyer F, et al. Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. *NHLBI*. 1998;98-4083. 3. Lau DCW, et al. 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children. *CMAJ*. 2007;176(8):1-117. 4. Allison DB, et al. Obesity as a disease: a white paper on evidence and arguments commissioned by the Council of the Obesity Society. *Obesity (Silver Spring)*. 2008;16(6):1161-1177. 5. Obesity Canada. What Causes Obesity. 2019. Available at: <https://obesitycanada.ca/understanding-obesity/>. Retrieved July 18, 2019. 6. NIH. What causes overweight and obesity? Available at: <https://www.nhlbi.nih.gov/health/health-topics/topics/obe/causes>. 7. Park J. Obesity on the Job. *Statistics Canada*. 2009:14-22. 8. McMurray R, et al. Examining Variations of Resting Metabolic Rate of Adults: A Public Health Perspective. *Med Sci Sports Exerc*. 2014;46(7):1352-1358. 9. Collins J. Behavioral And Psychological Factors In Obesity. *The Journal of Lancaster General Hospital*. 2009;4(4). 10. Vgontzas AN, et al. Obesity-related sleepiness and fatigue: the role of the stress system and cytokines. *Ann N Y Acad Sci*. 2006;1083:329-344. 11. Evans J, et al. Sleep laboratory test referrals in Canada: Sleep Apnea Rapid Response Survey. *Can Respir J*. 2014;21(1):4-10. 12. NIH. Clinical Guidelines On The Identification, Evaluation, And Treatment Of Overweight And Obesity In Adults. 1998. Available at: http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf. Retrieved May 22, 2019. 13. Twells LK, et al. Current and predicted prevalence of obesity in Canada: a trend analysis. *CMAJ Open*. 2014;2(1):E18-E26. 14. Statistics Canada. Obesity in Canadian adults, 2016 and 2017. Available at: <https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2018033-eng.pdf>. Retrieved May 22, 2019. 15. Dietitians of Canada. BMI for Children/Teens. 2019. Available at: <https://www.dietitians.ca/Your-Health/Assess-Yourself/Assess-Your-BMI/BMI-Children.aspx>. Retrieved July 31, 2019. 16. Rao DP, et al. Childhood overweight and obesity trends in Canada. *Health Promotion and Chronic Disease Prevention in Canada*. 2016;36(9):194-198. 17. Biro M, et al. Childhood Obesity and Adult Morbidities. *American Journal of Clinical Nutrition*. 2010;91:1499-1505. 18. Bancej C, et al. Trends and projections of obesity among Canadians. *Health Promotion and Chronic Disease Prevention in Canada*. 2015;35(7):109-111. 19. World Health Organization. Obesity and Overweight. 2018. Available at: <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>. Retrieved July 30, 2019.