

Health Fact Sheets

Metabolic syndrome in adults, 2012 to 2013



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- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- ^P preliminary
- ^r revised
- X suppressed to meet the confidentiality requirements of the *Statistics Act*
- ^E use with caution
- F too unreliable to be published
- * significantly different from reference category ($p < 0.05$)

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Metabolic syndrome in adults, 2012 to 2013

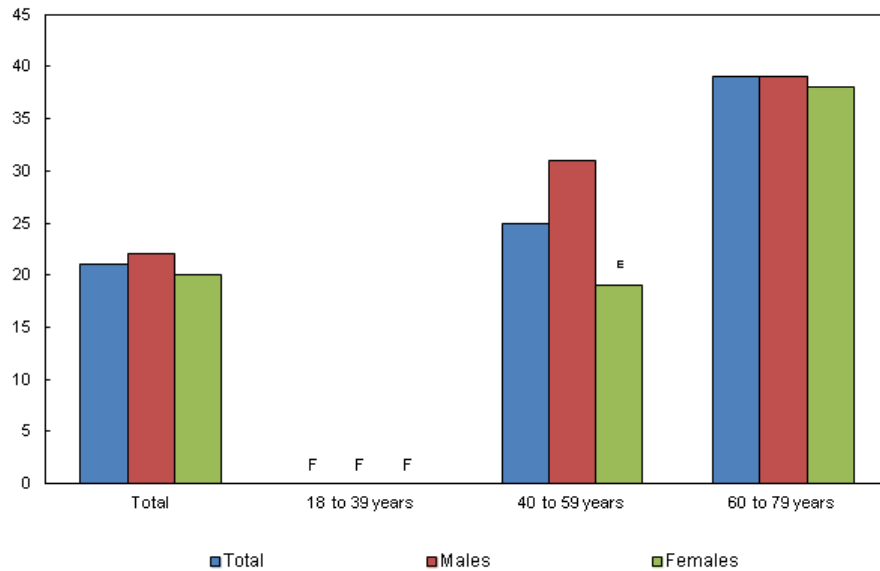
Metabolic syndrome is a clustering of risk factors that increase a person's risk of cardiovascular disease and type 2 diabetes.¹ These risk factors include abdominal obesity (or high waist circumference), elevated triglycerides, low high-density lipoprotein cholesterol (HDL-C), high fasting blood glucose, or high blood pressure.¹



Results from the 2012 to 2013 Canadian Health Measures Survey (CHMS) indicate that approximately 21% of adults aged 18 to 79 had metabolic syndrome (Chart 1). The prevalence of metabolic syndrome increased significantly with age. Less than 13% of adults aged 18 to 39 had metabolic syndrome compared to 25% of adults aged 40 to 59 and 39% of adults aged 60 to 79. The prevalence of metabolic syndrome did not differ significantly by sex (Chart 1).

Chart 1
Prevalence of metabolic syndrome in adults aged 18 to 79, by age group and sex, household population, Canada, 2012 to 2013

percent



^E use with caution (data with a coefficient of variation (CV) from 16.6% to 33.3%)

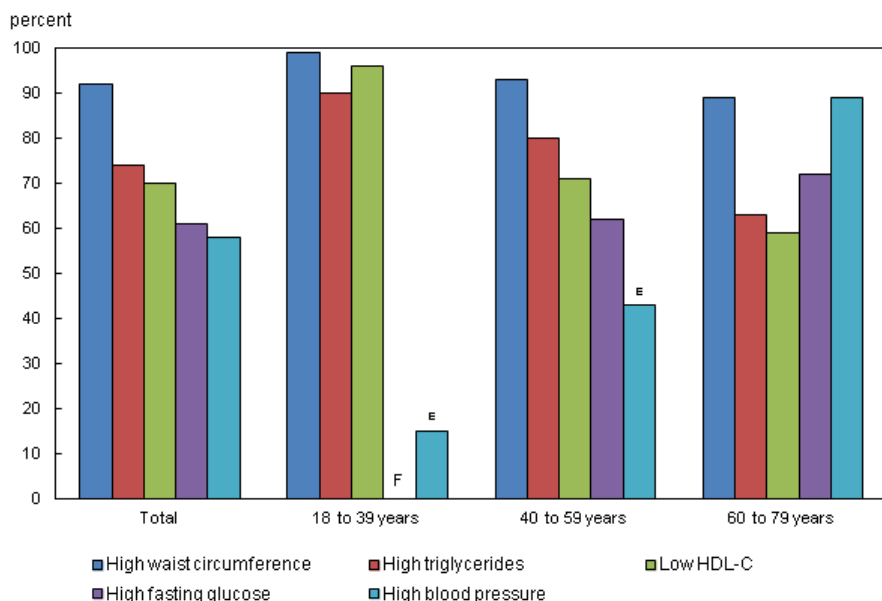
F too unreliable to be published (data with a coefficient of variation (CV) greater than 33.3%; suppressed due to extreme sampling variability)

Source: Canadian Health Measures Survey, 2012 to 2013.

Chart 2 shows the distribution of each of the risk factors for metabolic syndrome by age group and sex among adults with metabolic syndrome. High waist circumference was the most prevalent risk factor (92%) and high blood pressure was the least prevalent (58%) (Chart 2).

The distribution of these risk factors differed significantly by age group. Notably, high waist circumference, high triglycerides, and low HDL-C (high-density lipoprotein cholesterol) were significantly higher in younger adults aged 18 to 39 compared to older adults aged 60 to 79. By contrast, high blood pressure was significantly lower in 18 to 39 year olds compared to both 40 to 59 year olds and 60 to 79 year olds (Chart 2).

Chart 2
Prevalence of risk factors among adults with metabolic syndrome aged 18 to 79, by age group, household population, Canada, 2012 to 2013



HDL-C high-density lipoprotein cholesterol.

^Euse with caution (data with a coefficient of variation (CV) from 16.6% to 33.3%)

^F too unreliable to be published (data with a coefficient of variation (CV) greater than 33.3%; suppressed due to extreme sampling variability)

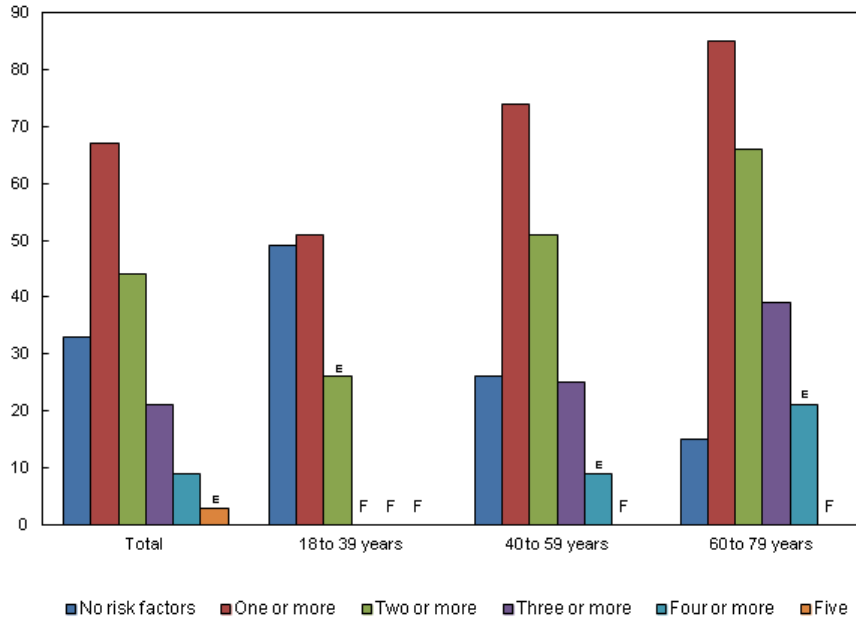
Source: Canadian Health Measures Survey, 2012 to 2013.

In general, the prevalence of each risk factor did not differ significantly between males and females (data not shown). High waist circumference was the most prevalent risk factor among both males (89%) and females (96%) (data not shown). However, in males the least prevalent risk factor was high blood pressure (55%) but in females it was high glucose (53%), although there were no significant differences between males and females for either of these risk factors.

While approximately 1 in 5 Canadian adults were determined to have metabolic syndrome based on having three or more of the important risk factors (see About metabolic syndrome), 44% had two or more risk factors and 67% had at least one risk factor. Only 33% of adults aged 18 to 79 had none of the risk factors (Chart 3). The number of metabolic syndrome risk factors increased significantly with age, where 51% of adults aged 18 to 39 had at least one risk factor, compared to 85% of adults aged 60 to 79. Similarly, 26% of adults aged 18 to 39 had at least two risk factors, compared to 66% of adults aged 60 to 79.

Chart 3
Distribution of the number of metabolic syndrome risk factors among all adults aged 18 to 79, by age group, household population, Canada, 2012 to 2013

percent



E use with caution (data with a coefficient of variation (CV) from 16.6% to 33.3%)

F too unreliable to be published (data with a coefficient of variation (CV) greater than 33.3%; suppressed due to extreme sampling variability)

Source: Canadian Health Measures Survey, 2012 to 2013.

About metabolic syndrome

Metabolic syndrome is a clustering of risk factors that increase a person's risk of cardiovascular disease and type 2 diabetes.¹ Metabolic syndrome is defined as having any three of the following criteria:¹

Criterion	Cut-off for men	Cut-off for women
High waist circumference (or abdominal obesity)	Waist circumference ≥ 102 cm	Waist circumference ≥ 88 cm
High plasma triglycerides	≥ 1.7 mmol/L	≥ 1.7 mmol/L
High fasting blood glucose	≥ 5.6 mmol/L	≥ 5.6 mmol/L
Low high-density lipoprotein cholesterol	< 1.03 mmol/L	< 1.30 mmol/L
High blood pressure	$\geq 130/85$ mmHg	$\geq 130/85$ mmHg

Note: The use of medication for any of the above criteria is considered as meeting the specific criterion.

Notes

- ¹ Alberti K, Eckel RH, Grundy SM, et al. (and others) 2009. Harmonizing the metabolic syndrome. A joint interim statement of the International Diabetes Federation Task Force on Epidemiology and Prevention; National Heart, Lung, and Blood Institute; American Heart Association; World Heart Federation; International Atherosclerosis Society; and International Association for the Study of Obesity. *Circulation*. Vol. (volume) 120, no. (number) 16, p. (page) 1640 to 1645.

References

Alberti K, Eckel RH, Grundy SM, et al. (and others) 2009. Harmonizing the metabolic syndrome. A joint interim statement of the International Diabetes Federation Task Force on Epidemiology and Prevention; National Heart, Lung, and Blood Institute; American Heart Association; World Heart Federation; International Atherosclerosis Society; and International Association for the Study of Obesity. *Circulation*. Vol. (volume) 120, no. (number) 16, p. (page) 1640 to 1645.

Data

Additional Canadian Health Measures Survey data on the risk factors for metabolic syndrome are available from CANSIM tables 117-0001, 117-0008 and 117-0009.

For more information on the Canadian Health Measures Survey, please contact Statistics Canada's Statistical Information Service (toll-free 1-800-263-1136; 514-283-8300; infostats@statcan.gc.ca).

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