

Study: The effect of COVID-19 on physical activity among Canadians and the future risk of cardiovascular disease

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Prevention and control measures implemented since March 2020 have reduced the transmission of COVID-19, but they have also changed how Canadians live. There are concerns about the unintended consequences that may result from changes in health behaviours, such as physical activity. A new study released today estimates how many Canadians could potentially develop cardiovascular disease over the next three years because of reduced levels of physical activity during the COVID-19 pandemic.

Based on small Canadian studies and international research indicating that physical activity has declined during the pandemic, the study used three hypothetical scenarios to reflect a possible range of changes in physical activity levels—reductions of 10%, 20% and 40%—in addition to a fourth scenario of no change in activity. These scenarios describe the potential impact on cardiovascular disease by different level of physical activity reduction. At pre-pandemic levels of physical activity, approximately 228,200 Canadians (90,500 women; 137,700 men) were expected to develop cardiovascular disease during the three-year period from March 2020 to March 2023.

The number of women diagnosed with cardiovascular disease over a three-year period was projected to increase by 533 (10% reduction scenario), 600 (20% reduction scenario) and 1,481 (40% reduction scenario). For men, cardiovascular disease was projected to increase by 1,133 (10% reduction scenario), 1,288 (20% reduction scenario), or 3,361 (40% reduction scenario) over the same three-year period.

Note to readers

The probability of being diagnosed with cardiovascular disease in the next three years was calculated for each Canadian Community Health Survey (CCHS) respondent using the Cardiovascular Population Risk Tool (CVDPoRT). The CVDPoRT is a predictive risk algorithm developed and validated by linking earlier cycles of the CCHS (i.e., 2001 to 2012) to cardiovascular hospitalization and death records. The relative change in cardiovascular risk associated with a change in physical activity was estimated from a meta-analysis of published studies.

Definitions, data sources and methods: survey number [3226](#).

The study "[The effect of COVID-19 on physical activity among Canadians and the future risk of cardiovascular disease](#)" is now available as part of the series *StatCan COVID-19: Data to Insights for a Better Canada* ([45280001](#)).

For more information, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca).

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