





Key Messages: Environmental Burden of Cancer in Ontario

Cancer Care Ontario and Public Health Ontario's jointly produced Environmental Burden of Cancer in Ontario sheds light on environmental carcinogens by calculating, for the first time, the annual burden of environmental cancers in Ontario. The report estimates how many new cancer cases each year in Ontario are from exposure to carcinogens in our environment.

The Ontario-specific estimates presented in this report provide decision-makers with information to support evidence-based decision-making and priority-setting. It also highlights policy opportunities for reducing population-level exposure to environmental carcinogens.



What was done

- This report estimates the annual number of cancer cases from 23 environmental carcinogens that Ontarians are exposed to by being in the sun, breathing indoor and outdoor air, eating food, drinking water and ingesting indoor dust.
- The results are presented as a plausible range of annual cancer cases for each carcinogen.

What was found

- This report estimates that there are between 3,540 and 6,510 new cancer cases each year in Ontario from exposure to these 23 carcinogens.
- Three carcinogens are associated with the the majority of new environmental cancer cases :
 - solar ultraviolet radiation (2,090 to 2,990 cancer cases per year);
 - radon, a naturally occurring gas that can build up in lower levels of buildings (1,080 to 1,550 cancer cases per year); and
 - fine particulate matter, an air pollutant that arises from combustion sources (290 to 900 cancer cases per year).
- Eight other carcinogens have an estimated burden of 10 or more cancer cases per year: arsenic, acrylamide, diesel particulate matter, asbestos, formaldehyde, second-hand smoke, dioxins and chromium.
- The 12 remaining carcinogens have an estimated burden of less than 10 cancer cases per year.

Why this is important

- The estimated burden of cancer from environmental carcinogens is significant compared to other known risk factors for cancer, and falls between previously estimated burdens of alcohol and smoking.
- These results allow for a comparative assessment across different environmental carcinogens and offer insights into effective strategies for reducing the overall environmental burden of cancer.

Next steps

- This report highlights the environmental carcinogens that are responsible for the highest burden of cancers associated with the environment in Ontario, and may inform policy and legislative priorities.
- All levels of government, the private sector, non-governmental organizations and individuals can take action to reduce exposure to environmental carcinogens. It is hoped that this report provides insight on how to focus exposure reduction efforts.

Learn more by visiting: CancerCare.on.ca/Environment Report PublicHealthOntario.ca/EnvironmentalCancer

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