



Asbestos

Burden of Occupational Cancer Fact Sheet



WHAT IS ASBESTOS?

Asbestos is a **group of naturally occurring, fibrous silicate minerals**. It has historically been useful for many construction applications because of its heat resistance, tensile strength, and insulating characteristics. It is found primarily in roofing, thermal and electrical insulation, cement pipe and sheets, flooring, gaskets, coatings, and other products.

The Government of Canada banned most uses of asbestos and asbestos-containing products in 2018. However, the vast majority of exposures that occur today are due to contact with older asbestos-containing products. Asbestos may be encountered during the maintenance, renovation, and modification of existing public, residential, and commercial buildings.

The International Agency for Research on Cancer classifies asbestos as a **known carcinogen** (IARC 1).

WHAT ARE ITS HEALTH EFFECTS?

- Mesothelioma (a cancer of the protective lining of many internal organs)
- Lung, laryngeal, and ovarian cancer
- Asbestosis (scar tissue in the lungs)

THE BURDEN OF CANCER FROM WORKPLACE EXPOSURE TO ASBESTOS IN CANADA

The term 'burden' refers to the human impact (deaths, illness, years of life lost) and the economic costs (health care, productivity) associated with a cause or group of causes of disease.

1,900
Lung cancers due to workplace asbestos exposure

Approximately **1,900 lung cancers** and **430 mesotheliomas** are due to occupational asbestos exposure each year, based on past exposures (1961-2001). This amounts to **8% of all lung cancers** and **81% of all mesotheliomas** diagnosed annually (almost all of the remaining mesotheliomas are likely due to environmental asbestos exposure).

WHAT IS THE ECONOMIC IMPACT?

Work-related asbestos exposure resulted in approximately **\$2.35 billion in costs for newly diagnosed lung cancer and mesothelioma cases** in 2011.

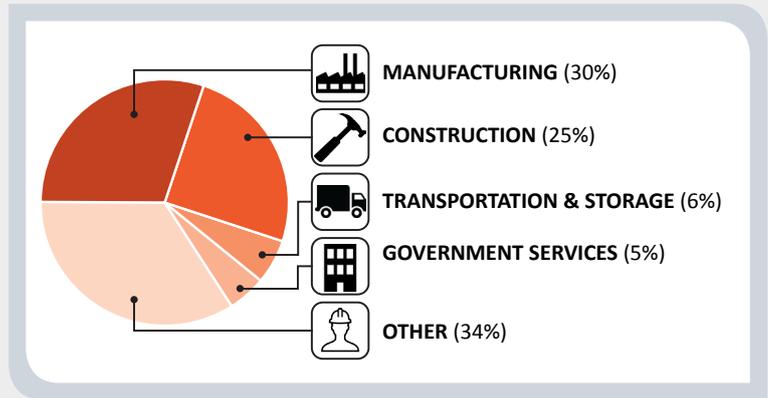
This includes approximately:

- 65% in health-related quality of life losses
- 8% in direct costs including health care, out of pocket expenses, family care giving, and workers' compensation administration
- 27% in indirect costs including output and productivity losses

\$2.35 billion
Estimated yearly cost of lung cancer and mesothelioma due to workplace asbestos exposure

WHAT WORKERS ARE MOST AFFECTED?

Most asbestos-related cancers occur among workers in the **manufacturing** and **construction sectors** (see pie chart on right). These cancers also occur among workers in the transportation and storage sector and government services. Some of the other sectors affected include communication and other utilities, educational services, and wholesale trade.



CAREX CANADA ASSESSMENT OF OCCUPATIONAL EXPOSURE TO ASBESTOS*

Inhalation is the most important route of occupational exposure to asbestos. Approximately 152,000 Canadians are exposed to asbestos at work.

Industries with the largest number of exposed workers in Canada include:

- **Specialty trade contractors** (82,000 people exposed)
- **Building construction** (52,000 exposed)
- **Automotive repair and maintenance** (4,300 exposed)

Occupations with the largest number of exposed workers include:

- **Carpenters** (34,000 exposed)
- **Construction trades helpers and labourers** (28,000 exposed)
- **Electricians** (16,000 exposed)

**Note: CAREX Canada estimates of exposure were not used to develop the burden of occupational cancer estimates for asbestos.*

HOW CAN EXPOSURE BE REDUCED?

The Canadian government banned asbestos in 2018. However, asbestos still exists in many public buildings, workplaces, and homes. Exposure can be reduced or eliminated by safely removing all existing asbestos-containing materials from buildings and workplaces before it deteriorates. A public registry of all public buildings and workplaces that contain asbestos can inform the public and workers about where there may be risk of exposure. For more details, visit the [OCRC exposure controls webpage](#).

ABOUT THE BURDEN OF OCCUPATIONAL CANCER STUDY

The Burden of Occupational Cancer Study quantified the number of cancers that are caused by exposure to carcinogens in the workplace in order to identify priority areas for prevention. It was a collaboration between researchers at OCRC, CAREX Canada, the Institute for Work & Health (who led the economic analyses), University of British Columbia, Université de Montréal, Institut de recherche Robert-Sauvé en santé et en sécurité du travail, and Imperial College London.



For more information, please visit OCRC at www.occupationalcancer.ca or CAREX Canada at www.carexcanada.ca.

This fact sheet was produced by CAREX Canada in partnership with OCRC. The Burden of Occupational Cancer Study is led by OCRC and is supported by the Canadian Cancer Society. CAREX Canada is hosted at Simon Fraser University and supported by the Canadian Partnership Against Cancer. Acknowledgments for header photos: KOMUnews, Chris RubberDragon.