Partnership for Work, Health and Safety

CAREX CANADA

Asbestos Exposure in British Columbia Fact Sheet

SEPTEMBER 2022

What is asbestos? What are the dangers?

Asbestos is the general term for a group of naturally occurring, fibrous silicate minerals, which have been widely used in construction applications due to heat resistance, tensile strength, insulating and friction characteristics, and ability to be woven. Asbestos exposure is carcinogenic to humans, with well-established links to mesothelioma, a cancer of the tissue that lines internal organs, such as the lungs, and to lung, larynx, and ovarian cancers; and suspected links to pharynx, stomach, and colorectal cancers. Exposure can also cause asbestosis, a serious disease characterized by scar tissue in the lungs.

Who is exposed to asbestos in BC?

Asbestos use peaked in the late 1960s and early 1970s, during which occupational exposure to asbestos primarily occurred during mining and milling, and the primary use of asbestos in manufactured products and buildings. Current day occupational exposures occur from contact with older asbestos-containing products and during renovation work.

In BC, an estimated 35,000 workers are currently exposed to asbestos, and they are primarily male (90%). The largest industrial groups exposed are construction-related, as asbestos may be encountered during the maintenance and renovation of existing public, residential, and commercial buildings.

Quick facts

Most important route of exposure

Inhalation

Uses

Roofing, thermal and electrical insulation, cement pipe and sheets, friction materials (such as automobile brakes), and other products.

Occupational exposures

Approx. 35,000 British Columbians are exposed at work (2016), mostly in the construction sector.

Health effects

Mesothelioma (cancer of the lining of internal organs); lung, ovarian, and gastrointestinal cancers; and asbestosis (scar tissue in the lungs).

Policy

The Government of Canada banned almost all asbestos and asbestos-containing products in 2018.

ASBESTOS IN BC

FIVE LARGEST EXPOSURE GROUPS BY INDUSTRY	# WORKERS EXPOSED IN 2016	PROPORTION OF INDUSTRY EXPOSED
SPECIALTY TRADE CONTRACTORS	18,000	15%
CONSTRUCTION OF BUILDINGS	7,400	12%
LOCAL, MUNICIPAL AND REGIONAL PUBLIC ADMINISTRATION	1,900	5%
ELEMENTARY AND SECONDARY SCHOOLS	1,600	2%
TRANSPORTATION EQUIPMENT MANUFACTURING	1,200	12%

SOURCE: CAREX CANADA

THE UNIVERSITY OF BRITISH COLUMBIA
School of Population and Public Health
Faculty of Medicine

The health impact of asbestos, now and in the future

In 2020, PWHS and partners from the Occupational Cancer Research Centre in Ontario examined patterns of incidence of mesothelioma over time in BC. The number of cases of mesothelioma in BC has risen annually from ~35 cases diagnosed in 1993 to nearly 100 cases diagnosed in 2017. The majority of cases were male (85%) and over the age of 60 when diagnosed (83%). Incidence rates in men are much higher than in women, reflecting their much higher levels of occupational asbestos exposure in the past. Median survival has improved little over the past 25 years and in 2012-2016 was 8 months. Current asbestos-related disease is associated with exposures that occurred 10 to 40 years ago, due to a long latency period between exposure and onset of disease.

Research and policy

Workers' compensation

In recent years, approximately 100 cases of mesothelioma have been diagnosed annually in BC. Although rates may have plateaued, case numbers are unlikely to decrease soon and may even increase as the population ages and grows. Previous PWHS research showed that, although more than 80% of mesothelioma cases are likely caused by workplace exposures, less than half of individuals with mesothelioma listed in the BC Cancer Registry file a workers' compensation claim.

The best approach to reducing rates of mesothelioma and other asbestos-related cancers in the future is preventing exposure. Information on reducing risk and safe work practices is available from WorkSafeBC.

Awareness of the hazards of asbestos

CAREX Canada estimates that approximately 35,000 workers in BC are occupationally exposed to asbestos (2016), with most exposures taking place among workers in the construction industry and the building trades who maintain, renovate, and demolish older buildings containing asbestos. These workers will be at risk for mesothelioma and other cancers in the future. Inclusion of occupational data in routinely collected health data and improvements in job-related asbestos exposure data could increase the number of asbestos-related cancers recognized by Canadian workers' compensation boards. A Canadian registry, with better information on occupational and environmental exposure history, patient and tumour characteristics, and treatment would greatly increase Canada's ability to study these deadly asbestos-related cancers. Successful registries have been developed in other countries, such as Australia and Italy, and could be models for Canada.

Resources

- CAREX Canada Asbestos Profile
- Occupational Cancer Research Centre/CAREX Canada Burden of Occupational Cancer Fact Sheet
- Occupational Cancer Research Centre/CAREX Canada Burden of Occupational Cancer for Construction Fact Sheet
- Partnership for Work, Health and Safety Mesothelioma Surveillance and Prognosis in BC Research Brief

More information

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