

# Occupational Cancer

## What is cancer?

Cancer is a disease that develops when cells in the body grow in an uncontrolled and abnormal way. Cells are the basic units of which all living things are made up and are continuously growing and dividing. When cells start to grow in an abnormal way, they create masses of tissue called tumours. These tumours can invade and destroy important parts of the body, including the lungs and the kidney, often leading to death.

Cancer is the second leading cause of death in Manitoba. About 3,000 people die from cancer in Manitoba. This is 25 per cent of all the deaths in the province.

## What causes cancer?

Cells start to grow in an abnormal way if they have been damaged. Cells can be damaged in a number of ways. For example, cells can be damaged if they are exposed to certain substances, such as tobacco or asbestos. These dangerous chemical substances are known as carcinogens.

It usually takes more than one exposure to a carcinogen for a person to develop cancer. Often the cancer develops very slowly.

## Can work cause cancer?

Between two and eight per cent of all cancer cases are believed to be related to exposure to a cancer-causing substance in the workplace. Workers are exposed to a wide variety of chemicals in the workplace. Hundreds of newly developed chemicals are introduced into workplaces each year. Many of these chemicals have not been adequately tested to determine if they cause cancer.

## If you are exposed to a carcinogen, will you get cancer?

You will not necessarily develop cancer just because you are exposed to a substance or process that causes cancer. Factors such as how you are exposed, how much you are exposed to, and for how long, also determine if you will develop cancer.

Many cancers caused by a carcinogen at work appear 20 years or more after the start of the exposure. Most workers who get cancer from their jobs have either retired or left the jobs where they were exposed to cancer-causing substances.

## What should your employer do to prevent cancer?

Your employer is responsible to provide a safe and healthy work environment.

Employers should

- Substitute less hazardous substances for cancer-causing substances. If the substance cannot be eliminated from the workplace, employers should reduce workers' exposure to the substance to an absolute minimum. Employers should completely enclose the processes and use local exhaust ventilation to capture contaminants before they escape into the workplace.
- Provide personal protective equipment for workers only as a last resort if the above approaches are not possible.
- Make sure Material Safety Data Sheets (MSDS) are up to date. Material Safety Data Sheets are written by the product manufacturer. MSDSs list the ingredients in workplace products. Known carcinogens should be identified on these sheets. MSDSs also provide some information on how workers can protect themselves. MSDSs should be updated at least every three years.

**Table 1. Some Known Carcinogens**

<b>Agent</b>	<b>Industries and Trades with Proven Excess Cancers</b>	<b>Cancer Type</b>
Asbestos	Construction, asbestos mining and milling, production of friction products and cement	Lung Mesothelioma
Arsenic	Metal mining and smelting	Skin, Lung, Liver
Benzene	Chemical and rubber manufacturing, petroleum refining	Leukemia
Benzidine, derived dyes	Dye and textile production	Urinary bladder
Beryllium	Beryllium processing, aircraft manufacturing, electronics, secondary smelting	Lung
Cadmium	Smelting, battery making, welding	Lung
Chromium and chromates	Tanning, pigment making	Nasal sinus, Lung
Ethylene oxide	Hospitals, production of hospital supplies	Leukemia
Ionizing radiation	Nuclear, health care	Skin, Thyroid, Lung
Nickel	Nickel refining	Nasal sinus, Lung
Polycyclic aromatic hydrocarbons (from coke, coal, tar, shale, mineral oils and creosote)	Steel making, roofing, chimney cleaning	Skin, Scrotum, Lung
Radon	Uranium and hematite mining	Lung
Silica	Casting, mining	Lung
Vinyl chloride monomer	Chemical manufacturing	Liver
Wood dust	Cabinet making, carpentry	Nasal sinus

## How can you reduce your chance of developing work-related cancer?

- Examine Material Safety Data Sheets on all substances you use to see if any are proven or suspected to cause cancer.
- Work with your workplace health and safety committee to have cancer-causing substances replaced with less toxic ones.
- Limit your exposure as much as possible if you have to work with a suspected or proven carcinogen. Make sure the exhaust ventilation system is working properly. You should also make sure you are using your protective equipment correctly.

## What should you do if you have been exposed to cancer-causing substances?

Tell your doctor if you have been exposed to cancer-causing substances. Ask your doctor to record it in your health records.

### For more information contact:

MFL Occupational Health Centre  
 102-275 Broadway  
 Winnipeg, Manitoba, R3C 4M6  
 Phone: (204) 949-0811  
 Fax: (204) 956-0848  
 Toll Free: 1-888-843-1229  
 (Manitoba only)  
 Email: [mflohc@mflohc.mb.ca](mailto:mflohc@mflohc.mb.ca)  
 Website: [www.mflohc.mb.ca](http://www.mflohc.mb.ca)

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