



www.lung.ca

Are you at risk?

Lung cancer risk and screening

Smoking tobacco can make you up to 25 times more likely to develop lung cancer.

Smoking tobacco is the #1 risk factor for developing lung cancer. Every year, 30,000 Canadians are diagnosed with lung cancer. Tobacco use is responsible for more than 70% of these cases.

If you smoke, the most important thing you can do to lower your risk is to quit. Speak to your healthcare provider about options to help you quit and visit smokefreecurious.ca for more information.

Why we made this tool

It's not just those who smoke tobacco who are at risk. Anyone with lungs can get lung cancer.

[Learn more about other known risk factors](#)

If your age and smoking history put you at high risk for lung cancer, you may be eligible for lung screening.

[Learn more about lung screening programs](#)

B R E A T H E
the lung association

To find out more about lung cancer, visit www.lung.ca/lung-cancer.

Even if you don't smoke, other factors may be putting you at risk for lung cancer.

Second- and third-hand smoke

Second-hand smoke contains the same harmful chemicals that are inhaled by someone who smokes. It is the cause of more than 800 lung cancer deaths in Canada every year.

Third-hand smoke" — smoke that builds up on surfaces such as walls, rugs, curtains, furniture or surfaces in vehicles — is also a health concern.

Radon

Radon is a colourless, odourless, tasteless gas that comes from the natural breakdown of uranium in rocks and soil. It can seep into buildings through dirt floors or cracks in the foundation and build up in enclosed, poorly ventilated spaces.

Radon can build up in your home and put you and your family at increased risk for lung cancer. It is the leading cause of lung cancer in non-smokers and the second leading cause of lung cancer in smokers.

Personal or family health history

A personal history of lung cancer or a personal history of lung disease (like COPD or TB) can make your lungs more vulnerable to developing lung cancer.

Having a first-degree relative (parent, child, sibling) who has been diagnosed with lung cancer can also increase your risk.

Outdoor air pollution

There is increasing evidence that longer-term exposure to particle pollution from vehicle exhaust, coal-fired power plants and other industrial sources is connected to an increase risk of lung cancer.

Occupational exposure to carcinogens

Some occupations — such as certain manufacturing jobs, the construction industry, mining and oil and gas industries and in welding and motor vehicle repair — involve an increased risk of exposure to substances that have been proven to cause cancer in humans (carcinogens).

Common workplace carcinogens include:

- Arsenic
- Asbestos
- Chromium IV
- Diesel engine exhaust
- Crystalline silica
- Lead
- Polycyclic aromatic hydrocarbons (PAHs)
- Welding fumes

Read more at www.carexcanada.ca



Here are only a few examples of how the Canadian Lung Association is reducing your risk through advocacy, research and programming.

We advocate for more restrictive tobacco policies and connect Canadians to resources to make quitting smoking easier.

We help make radon testing and mitigation more affordable for low-income families.

Every day, diesel-engine school buses expose Canadian children to cancer-causing diesel exhaust. We raise awareness and advocate for the purchase of more electric school buses.

We fund research to better understand the causes of and find treatments for lung cancer and other conditions.



Lung screening programs

Lung cancer often doesn't have any symptoms until it is very advanced. Because of this, almost half of all lung cancer diagnoses in Canada are made at Stage IV, when the five-year survival rate is only 5%.

Early detection and treatment of lung cancer is the most promising strategy to reduce lung cancer mortality. Screening programs can help identify lung cancer earlier (when it is far more treatable) in those who do not have any symptoms of lung cancer but whose smoking history puts them at high risk for developing the disease.

Screening programs have the expertise and the technology required for effective lung cancer screening, while minimizing the risks. For decades screening for lung cancer was done using chest x-rays however, chest x-rays miss many lung cancers. Screening programs today use low-dose CT scans (LDCT scans), which show more detail than a chest x-ray and emit less radiation than a standard-dose CT scan. In fact, LDCT scans use only one quarter of the radiation of a standard CT scan, or the equivalent of about 15 x-rays. Screening with LDCT has been shown to reduce mortality in those with a high risk of developing lung cancer, as it is more likely to detect lung cancer at an early stage when compared to the use of chest x-rays.

If you're wondering if you should be screened for lung cancer, speak to your family doctor or nurse practitioner. You can use the questions and answers below to help guide the conversation.

Who is eligible for a referral to a lung screening program?

Your family doctor or nurse practitioner may provide you with a referral to a screening program. The recommended criteria for eligibility for a referral are:

- aged 55 to 74 AND
- are current smokers or former smokers who quit within the last 15 years AND
- have a smoking history of at least 20 years (or 15 years in Alberta)

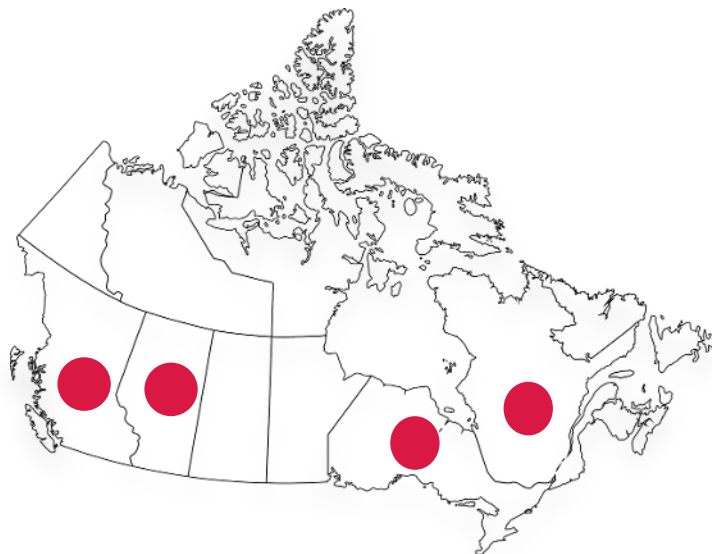
Note that this is a referral to be assessed by the lung screening program, not a referral for the screening test itself. Even if your family doctor or nurse practitioner provides you with a referral, you may not meet the requirements of the screening program. The staff of screening program will further review your medical history, and consider additional factors like your body mass index, family history of lung cancer, race, education as well as your smoking status, smoking duration, smoking intensity and how many years it has been since you quit smoking. This information will determine your eligibility for screening.

Is there a lung screening program in my province?

Despite their proven benefits, lung cancer screening programs do not exist everywhere in Canada.

Currently, only British Columbia and Ontario have permanent screening programs, while both Alberta and Quebec have pilot programs.

Work is underway in Saskatchewan, Manitoba, New Brunswick, Nova Scotia and Newfoundland and Labrador.



Why are only certain people eligible for screening?

Screening comes with both benefits and risks, such as exposure to radiation. Research has shown that the benefits outweigh the risks — and that it reduces mortality — for those whose smoking history and age put them at high risk for developing lung cancer in the future.

If I'm having symptoms that may be related to lung cancer, will I be "fast tracked" for screening?

You will not be referred to a screening program if you are having symptoms that you suspect may be related to lung cancer. *Screening is meant only for those who are at high risk but do not have any symptoms of lung cancer.*

Speak to your healthcare provider if you're experiencing symptoms that you suspect may be related to lung cancer, such as:

- shortness of breath
- chest pain that you can always feel, and that gets worse with deep breathing or coughing
- blood in mucus coughed up from the lungs
- wheezing
- weight loss
- fatigue
- hoarseness or other changes to your voice
- difficulty swallowing
- swollen lymph nodes in the neck or above the collarbone
- headache

Your healthcare provider will consider your symptoms and your personal and family history to determine if you need to be referred for diagnostic testing.

What if I don't have a family doctor?

Contact your provincial screening program to ask about being assessed for eligibility. You will need a family doctor or nurse practitioner to review the results with you and refer you for any additional testing or appointments if necessary.

This resource was created with the support of unrestricted funding from Merck Canada.

Lung screening programs in Canada

British Columbia Lung Screening Program

1 877-717-5864

There are 36 participating sites across the province.

Ontario Lung Screening Program

The Ottawa Hospital

Renfrew Victoria Hospital (affiliated)

Cornwall Community Hospital (affiliated)

1-844-394-1124

Health Sciences North (Sudbury)

1-844-703-0164

Lakeridge Health (Oshawa)

1-905-576-8711 ext. 34449

University Health Network (Toronto)

416-340-4154

Quebec Lung Cancer Screening Program (pilot)

1 844-656-4312

- Baie-Comeau
- Longueuil
- Montreal (2)
- Sherbrooke
- St- Foy

Alberta Lung Cancer Screening Program (pilot)

1 866-727-3926

During the pilot phase, the program is open only to patients followed in

- Mosaic Primary Care Network (Calgary)
- Edmonton O-day'min Primary Care Network
- Grand Prairie Primary Care Network