Information for

Patients with an
Abnormal Lung X-ray
Some of the materials in this resource were adapted with permission from: *Understanding Lung Cancer, Juravinski Cancer Centre, Hamilton Health Sciences, 2014.*

**Reviewed by:** Thoracic Cancer Site Team, Nova Scotia Health Authority

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This publication is updated every three years or as clinical practice changes. The information in this booklet does not replace the advice of your health care provider. If you have any questions please ask your health care provider.

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Why did my doctor send me for a chest X-ray/CT scan?

- You may have had a chest X-ray for symptoms like coughing or for another reason such as before surgery.

- Your health care provider ordered a chest X-ray or CT scan to see a detailed picture of your lungs to check your lung health.

  - CT scans use computers and X-rays to show a very detailed picture of your lungs and can show small changes that regular X-rays cannot.

  - Sometimes you may get an injection of contrast dye before your scan to help make the picture even clearer.
What could cause my chest X-ray or CT scan to be abnormal?

- An abnormal report means that your doctor saw something in the image of your lungs that needs to be looked at further.

- Sometimes small spots, called pulmonary (lung) nodules, are seen on the CT scan image of your lungs. These are very common and are almost always not cancer (benign). In fact, small nodules are seen in over half of all chest CT scans. They can happen because of lung infections or inflammation or you could have been born with them. Small pulmonary nodules are very rarely lung cancer.

- If you have a small lung nodule, you will only need to be rechecked with CT scans to make sure that it’s not growing or changing. Most small lung nodules are not cancer.

- If you have a bigger lung nodule or the nodule grows or changes you will need other tests to see if you have lung cancer.
What other tests will I have?

- Your health care provider may send you to a specialist for more tests. Not all people will have the same tests. Your doctor will choose the tests that are best for you.

- The type of specialist you see will depend on where you live and your CT report. You may see a respirologist, an internist or a thoracic surgeon.

The different tests that your doctor or specialist may order include:

- **Bronchoscopy** - a doctor puts a thin, flexible tube with a small camera on the end down your airway to see inside your lungs. This lets the doctor see and take small samples of lung tissue.

- **Biopsy** - a doctor uses a needle to remove small pieces of tissue or fluid. Sometimes X-rays are used to guide the needle. The area where the needle is inserted is numbed with a local anesthetic (freezing). The sample is then sent to a lab to be looked at under a microscope.

- **Special scans** - Positron Emission Tomography (PET) scans or Magnetic Resonance Imaging (MRI) scans may be ordered for some, but not all people.
**Is there a chance this is lung cancer?**

- Depending on what your tests show and your history, lung cancer may be a possible diagnosis. Ask your health care provider if this is something you should be concerned about.

- Some people are more likely to develop lung cancer than others. Anything that increases your chances of disease is called a risk factor. Risk factors for lung cancer include: tobacco smoking, chronic obstructive pulmonary disease (COPD), being over the age of 50, having had cancer or having a family member who has had lung cancer.

- If you have one or more risk factors, it doesn’t mean you will have lung cancer. Even people who have never smoked or don’t have any risk factors can get lung cancer. If you have a lung nodule, the risk factors help your doctors figure out if the nodule might be cancer.
What happens next?

- Your doctor will tell you what the results of your tests show and what the next steps are.

- If your tests show that you do not have lung cancer, your doctor will decide what to do next.

- If your tests show that you are likely to have lung cancer, your doctor will send you to a cancer specialist. This could be a thoracic surgeon, medical oncologist or radiation oncologist. You may have other tests to help your cancer specialist decide on your treatment plan.

- Your doctor may also refer you to the cancer patient navigator in your area. A cancer patient navigator is a nurse specializing in caring for people living with cancer. Your cancer patient navigator can answer your questions and help support you as you move along your testing and treatment pathway.
Abnormal lung X-ray pathway

You had a cough or other symptoms, went to your family doctor or walk-in clinic and were sent for a chest X-ray

Chest X-ray results

Suspected infection (for example, pneumonia)

Antibiotics and maybe a follow-up chest X-ray

If the infection is better, no more tests are needed

Abnormal chest X-ray

CT scan

CT scan results

Small pulmonary (lung) nodule, inflammation or infection

Follow up CT scans

Bigger pulmonary (lung) nodule or suspected lung cancer

Referral to a specialist and more tests as necessary

You had a chest X-ray for another medical reason (like before surgery)

You had an abnormal CT scan
Where can I learn more?

Canadian Cancer Society
www.cancer.ca

Lung Cancer Canada
www.lungcancercanada.ca

National Comprehensive Cancer Network*
www.nccn.org

*Please note that this is an American organization and not all information will apply to Canadian patients.