

Section Two: Diagnosing lung cancer

Tekiona Rua
Whakataunga matepukupuku
pūkahukahu



Key points:

- If there is concern that your symptoms may be lung cancer, further tests (investigations) will be done.
- The purpose of these tests is to find out whether you have lung cancer, the type of lung cancer you have and if the cancer has spread to other parts of your body.
- The results of any tests you have will help your treatment team advise what the best treatment options are for you.
- Common tests include:
 - chest X-ray
 - lung function test
 - sputum cytology
 - biopsy
 - testing for gene changes
 - imaging tests (scans).

Ngā kōrero matua:

- Mehemea he āwangawanga ōu tērā pea kua puta he matepukupuku pūkahunahūnā ō tohūmate, ka whakahaerehia anō he whakamātautau atu.
- Ko te whāinga o ēnei whakamātautau ko te kimi mehemea kua whai koe i te matepukupuku pūkahunahū, te momo matepukupuku kua puta kia koe, me te tiro mehemea kua rauroha ki wāhi kē o tō tinana.
- Ka āwhina ngā whakamātautau ka whai koe, i tō rōpū maimoa ki te whakatau ko tēhea te kōwhiringa maimoa pai rawa mōu.
- Ka whai ko ēnei whakamātautau:
 - Whakaata roto uma
 - Whakamātautau mahinga pūkahunahū
 - Hūare cytology
 - Unuhanga kikokiko
 - Whakamātautau panoni ki ngā ira
 - Whakamātautau ataata.

Diagnosing lung cancer

If you are concerned that you may have lung cancer or you have noticed any of the symptoms of lung cancer, you may see your GP or whānau doctor first. They will talk to you about your symptoms and examine your chest. They will also ask you about any risk factors for lung cancer you may have.

If your GP or whānau doctor is concerned that your symptoms may be due to lung cancer, they will recommend further tests (investigations).

The purpose of these tests is to find out whether you have lung cancer, the type of lung cancer you have and if the cancer has spread to other parts of your body. The results of any tests you have will help your treatment team to decide what the best treatment options are for you.

You may have some, or all, of these tests:

Chest X-ray (CXR)

An X-ray of the chest may show cancers one centimetre wide or larger.

Lung function test

You may have a lung function test, known as spirometry, which checks how well your lungs are working.

Sputum cytology

A sample of your sputum (spit, mucus) may be tested for cancer cells.

Biopsy

A biopsy often takes small samples of tissue from your lung or lymph nodes. Tissue samples are looked at under a microscope to see if there are any cancer cells present. If cancer cells are seen in your biopsy sample, this will show the type of cancer you have.

There are different ways to take a biopsy. Your doctor will explain which one is right for you. Types of biopsy include:

- **bronchoscopy:** Uses a thin, flexible tube called a bronchoscope, to look at the inside of the breathing tubes and lungs. Bronchoscopy is used to look for cancer and to take a small sample of tissue for testing
- **endobronchial ultrasound (EBUS):** A special type of bronchoscopy. The bronchoscope has a small ultrasound probe on the end. This can measure the size and position of a cancer or lymph nodes and help direct a biopsy needle to the right place
- **percutaneous (through the skin) Needle Biopsy:** A very thin needle is placed between the ribs, into the lung. Some cells or tissue are taken for testing
- **mediastinoscopy:** Uses a thin, flexible tube called a mediastinoscope to look at, and take samples of, the lymph nodes in the centre of the chest next to the lungs. Mediastinoscopy is a surgical operation carried out under general anaesthetic
- **surgical biopsy:** This may be done to confirm a diagnosis or as a surgical procedure to remove the cancer. Surgical biopsy can be done in two ways: keyhole surgery, known as video-assisted thoracoscopic surgery (VATS), or thoracotomy, where a larger area of the chest is opened to get better access to the lung.

Testing for gene changes (mutations)

Some people may have a lung cancer which contains a change in a specific gene or protein that helps the cancer to grow. Laboratory doctors (pathologists) test for these changes in lung cancer cells from the tissue that was taken during a biopsy.

CT, MRI and PET-CT scans

CT, MRI and PET-CT scans are different imaging tests used to build a detailed picture of the body, looking for the size, location and possible spread of any cancer.

Further tests

Your treatment team may recommend other tests, including:

- general blood tests
- scans of other body organs such as bones, liver, brain and kidneys.