

## Secondary cancer in the lung



This Information Sheet is about cancer that has spread from the part of the body where it started, called the **primary site**, to the **lung(s)**. Words in the text that are **bold** are explained in the glossary at the end of this Information Sheet.

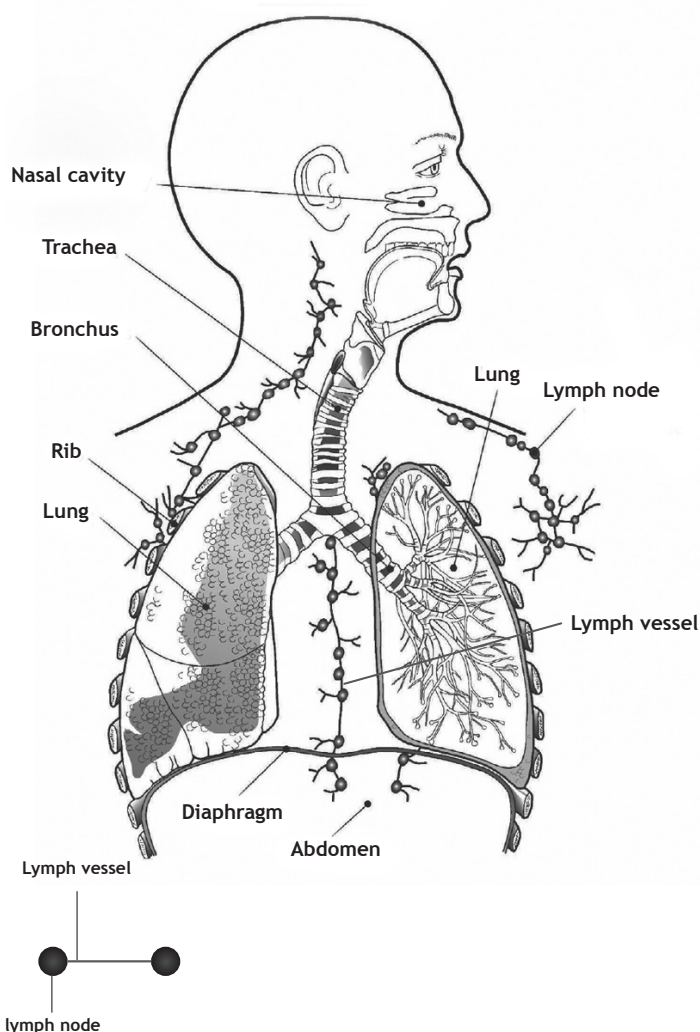
### What is secondary cancer in the lung?

Secondary cancer in the lung(s) occurs when cancer cells spread from the original cancer through the blood stream or lymphatic system and settle in the lung(s). This type of spread is called **metastasis**, secondary cancer or **secondaries**. It is not the same as having primary lung cancer.

Sometimes secondary cancer in the lung is found before a primary cancer has been diagnosed. It is not always possible to find the original cancer – this is called an **unknown primary**.

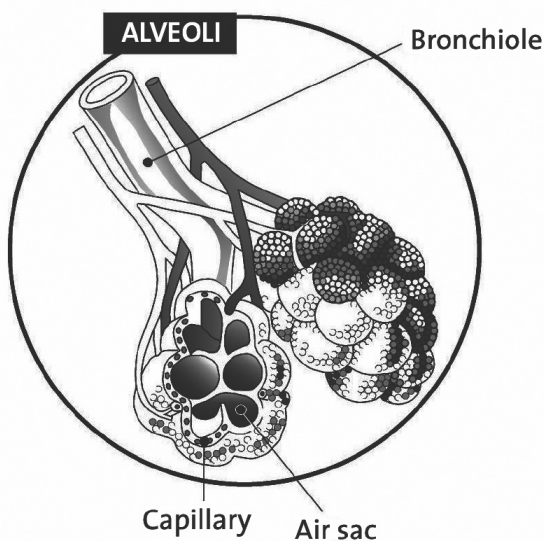
Although many types of cancer can spread to the lungs, it happens more often with breast, bowel (colon and rectum), kidney cancers, melanoma and sarcoma.

### Structure of the lungs and pleura



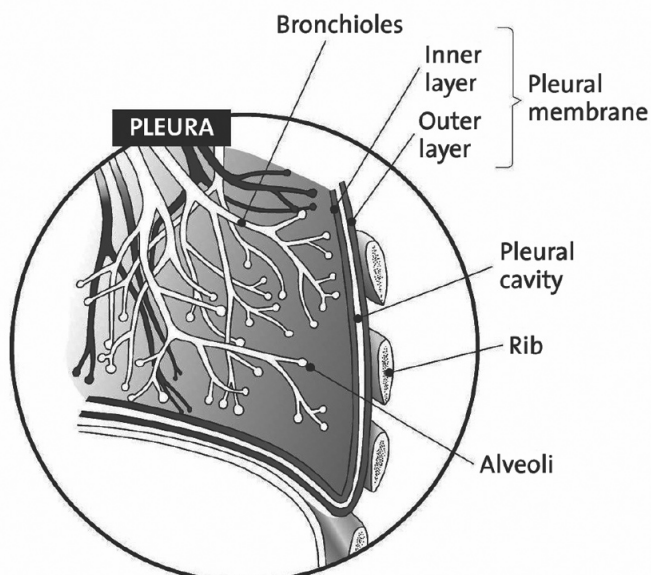
### How the lungs work

Lungs are a pair of organs on both sides of the chest. They fill most of the chest and are protected by the rib cage. They are spongy and roughly cone-shaped, and are made up of sections called lobes. The left lung has two and the right lung has three lobes. When we breathe in, air goes through the nose or mouth. From there it goes into the throat and down the windpipe (trachea) into the lungs via two tubes. These tubes are called the left and right bronchus which divide into smaller tubes called bronchioles. Each bronchiole ends up at tiny bubble – like air sacs (alveoli) – these make the lungs spongy.



Blood flows between the thin walls of near-by air sacs. This allows oxygen to move from the air into the bloodstream in order to make energy. Carbon dioxide, which is a waste product from the body, moves from the bloodstream into the air and is breathed out.

The lungs are lined with two layers of thin membrane called the pleura, which are about the thickness of plastic food wrap. The inner layer is attached to the outside of the lungs and the outer layer lines the inside of the chest wall. There is a small space (the pleural space or pleural cavity) between the pleura. The space contains a small amount of fluid produced by the pleura that acts as a lubricant. This lubricant allows the two layers to slide easily over each other as we breathe in and out.



## Symptoms of secondary cancer in the lung

### Breathlessness

This is a common and frightening symptom. Breathlessness can occur if the secondary cancer narrows or blocks the airways. You may have a feeling of not being able to get enough air into the lungs and this can make you feel anxious and panicky. Breathing exercises and relaxation techniques can be helpful. Sometimes the cancer may cause swelling or inflammation that can add to the breathlessness. Steroids prescribed by your doctor may reduce this. A chest infection can also add to breathlessness and antibiotics may be helpful.

### Cough and chest pain

This can be caused by the cancer or by an infection. These can be relieved by medicines, such as a cough linctus and pain relieving drugs. Sometimes a low dose of morphine (prescribed by your doctor) helps an irritating cough. Steam inhalation or nebulised salt water can help you cough up sputum (saliva and phlegm that is coughed up) if this is a problem.

### Coughing up blood (haemoptysis)

Sputum may be blood-streaked. If larger amounts are coughed up, a course of radiation treatment may be suggested.

### Fluid on the lung (pleural effusion)

Sometimes, when cancer spreads, little seedlings or plaques of secondary cancer are formed on the surface of the pleura. These irritate the pleural membrane and make it inflamed. The pleura then produce more lubricant fluid to try and soothe this inflammation. The pleural fluid builds up and is trapped between the two layers of membrane and begins to press on the lungs. The pressure will lead to symptoms of breathlessness, chest pain and coughing. The fluid can be drained in hospital by inserting a tube into the chest. Sometimes a drug is instilled into the tube to stick the two layers of the pleura together so there is no space for fluid to build up again.

## How secondary cancer in the lung is diagnosed

A chest X-ray is usually the first test done if someone has symptoms of a possible secondary cancer in the lung. If the X-ray is not clear a **CT scan** may be done and, in some cases, an **MRI scan** or a **PET scan** may be suggested. If a pleural effusion is present it may be possible to remove some of the fluid and examine it for cancer cells. A sample of an abnormal lump in the lung can be taken by guiding a needle into the middle of the lump under CT Scan vision.

## How secondary cancer in the lung is treated

The aim of treatment is usually to relieve symptoms and slow down further spread of the cancer.

Treatment will depend on the primary site of cancer and may include chemotherapy. For some cancers, for example, hormone-sensitive breast cancer; hormone therapy may be used. A short course of radiation treatment may be given to relieve symptoms, such as pain, breathlessness or coughing up blood. Surgery to remove the secondary cancer in the lung may be possible in some people, especially if the secondary cancer is only in one place and not attached to important blood vessels and nerves. This may be an option only if the primary cancer has been controlled and there is no evidence of spread elsewhere in the body.

In addition, expert symptom management, often using a combination of drugs and supportive therapies, such as relaxation and massage, will be helpful. You may be referred to a palliative care service.

## Living with secondary cancer in the lung

If you are diagnosed with secondary cancer in the lung you may experience a range of emotions including anger, fear, anxiety, resentment and sadness. You may find it helpful to talk over how you are feeling with others, such as family, friends, your GP, cancer care team or a counsellor.

## Helpful resources for more information

The Cancer Society offers a range of support and information services to assist those diagnosed with secondary lung cancer. Phone the Cancer Information Helpline 0800 CANCER (226 237) and speak to our cancer information nurses. The Cancer Society will also provide you free booklets – *Advanced Cancer/Matepukupuku Maukaha* and *Living with Cancer-Related Breathlessness* (has accompanying CD).

## Suggested reading and websites

Cancer Society libraries have these books to borrow. Phone 0800 CANCER (226 237) to request them.

### Reading

- American Cancer Society. *Quick Facts. Advanced Cancer*. USA: American Cancer Society, 2008.
- Holland, Jimmie, and Lewis, Sheldon. *The Human Side of Cancer: Living with hope, coping with uncertainty*. USA: HarperCollins, 2000.
- Lynn, Joanne, and Harrold, Joan. *Handbook for Mortals: Guidance for people living with serious illness*. USA: Oxford University Press, 1999.
- Moore, Thomas. *Care of the Soul: A guide for celebrating depth and sacredness in everyday life*. USA: HarperPerennial, 1994.
- Shinoda Bolen, Jean. *Close to the Bone: Life-threatening illness and the search for meaning*. USA: Touchstone Books, 1998.

### Websites

- Breast Cancer Care:  
[www.breastcancercare.org.uk](http://www.breastcancercare.org.uk)  
This site has information for those with lung cancer secondaries from breast cancer and an online forum for those living with secondary breast cancer.
- CancerBackup – coping with advanced cancer:  
[www.cancerbackup.org.uk/ResourceSupport/Advancedcancer/Copingwithadvancedcancer](http://www.cancerbackup.org.uk/ResourceSupport/Advancedcancer/Copingwithadvancedcancer)

- CancerBackup UK – secondary lung cancer: [www.cancerbackup.org.uk/Cancertype/Lungsecondary](http://www.cancerbackup.org.uk/Cancertype/Lungsecondary).
- National Cancer Institute – when cancer returns: [www.cancer.gov/cancertopics/When-Cancer>Returns](http://www.cancer.gov/cancertopics/When-Cancer>Returns)
- Palliative Care Australia “Asking Questions can Help” – an online booklet for patients and families – to view this click ‘publications’ to link to the booklet: [www.pallcare.org.au](http://www.pallcare.org.au)
- Skylight – Skylight helps children and young people deal with change, loss and grief: [www.skylight.org.nz](http://www.skylight.org.nz)

## Glossary

**CT scan** – the initials CT stand for **computerised tomography**. CT scanners produce a specialised type of X-ray, which builds up a three-dimensional picture of the inside of the body.

**MRI scan** – a scan that uses magnetic resonance to detect abnormalities.

**PET scan** – the initials PET stand for **positron emission tomography**. The test involves having an injection of a glucose (sugar) solution containing a tiny dose of radioactive material. Using the signals from this radioactive injection, a scanning machine can build up a picture of the part of the body.