

About Lung Cancer

A Quick Guide

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This is a brief summary on 'About lung cancer' from our website. You will find more detailed information on the there. In this information there are sections on

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You can view this information in a larger print on our website.

The lungs

The lungs bring oxygen into our bodies and pass it into the bloodstream so that it can circulate to every cell in the body. The lungs are part of the body system we use to breathe - the respiratory system.

The parts of the respiratory system

The windpipe (trachea) divides into 2 airways, called the right main bronchus and the left main bronchus. One goes to each lung. Within the lungs, they divide into smaller tubes called the secondary bronchi. There are 2 of these on the left side and 3 on the right. Each secondary bronchus divides into smaller tubes called bronchioles. At the end of the bronchioles are tiny air sacs called alveoli. In the alveoli, oxygen passes into the bloodstream to be carried round the body. Carbon dioxide passes into the alveoli from the bloodstream to be breathed out.

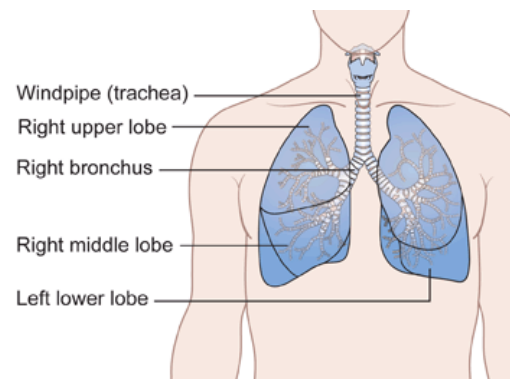


Diagram showing the parts of the respiratory system
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The right lung is divided into 3 sections called the upper, middle and lower lobes. The left lung is divided into 2 sections called the upper and lower lobes.

Lymph nodes

Close to the lungs and airways are lymph nodes (also called lymph glands). They are small bean shaped glands that filter fluid from the lung tissues. Cancer cells may break away from a tumour in the lung and then may get trapped in nearby lymph nodes.

The covering of the lungs (pleura)

The pleura are 2 fibrous sheets of tissue that cover the lungs and are also called the pleural membranes. The gap between the pleura is called the pleural space. The pleural membranes produce a fluid that moistens them. The fluid helps the pleural membranes to move smoothly over each other as we breathe.

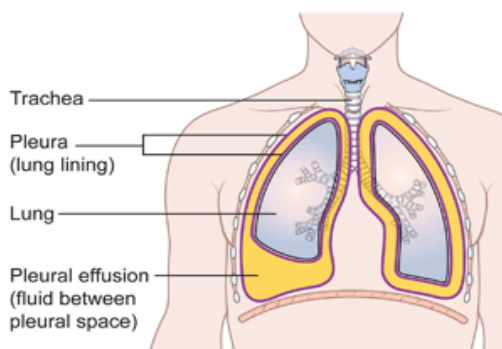


Diagram showing a build up of fluid in the lining of the lungs (pleural effusion)
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Lung cancer cells can sometimes spread to the pleura. The cells irritate the pleura and they make too much fluid, which collects and presses in on the lung. This is called a pleural effusion. You can't breathe in so well and may feel breathless.

Lung cancer risks and causes

Lung cancer is the 2nd most common cancer in the UK. It is one of the few cancers where there is a clear cause in many cases.

Smoking and lung cancer

By far the biggest cause of lung cancer is smoking. Although some people who have never smoked get lung cancer, smoking causes more than 8 out of 10 cases.

The more cigarettes you smoke, the more likely you are to get lung cancer. But the length of time you have been a smoker is also important. Starting smoking at a young age also greatly increases the risk. Cigarette smoking is the main cause of lung cancer. But pipe and cigar smokers are still much more likely to get lung cancer than non smokers. Passive smoking (breathing in other people's cigarette smoke) increases the risk of lung cancer, but it is still much less than if you smoke yourself.

Stopping smoking reduces your risk of lung cancer compared to carrying on. However long you have been smoking, it is always worth giving up. Even long term smokers who give up in their 60s can gain valuable years of life.

Other risk factors

Radon is a naturally occurring radioactive gas that can seep out of the soil. This can also cause lung cancer, especially in people who smoke. Radon isn't usually a problem outdoors, but levels can build up inside buildings. Other risk factors include

- Exposure to certain chemicals
- Air pollution
- Previous lung disease
- A family history of lung cancer
- Past cancer treatment
- Having poor immunity.

In some people who get lung cancer there is no obvious risk factor.

Protecting against lung cancer

Stopping smoking is the most important change you can make. But other changes to lifestyle, such as eating more fruit and vegetables, may also reduce your risk of lung cancer.

Lung cancer screening

Screening means testing people for the early stages of a disease before they have any symptoms. Before screening for any type of cancer can be carried out, doctors must have an accurate and safe test to use. The test must be reliable in picking up cancers that are there. But it must not show that there is a cancer there when there isn't (a false positive result).

At the moment there is no national screening programme for lung cancer in the UK. For screening to be introduced, we need a test that is simple, quick, not too expensive, and not harmful. We don't have that yet.

Lung cancer is often picked up on chest X-ray. But by the time it is diagnosed this way, it is often quite advanced. Researchers are trying to find other screening tests that may help to diagnose lung cancer earlier. The UK Health Technology Assessment programme (www.nets.nihr.ac.uk) is currently looking into screening methods.

Researchers are trying to find screening tests that may help to diagnose lung cancer earlier. They are looking at a scan called a spiral CT scan, and a special type of bronchoscopy. They are also looking at tests for substances in the body (biomarkers) that could show lung cancer is developing before the person has any symptoms.

Lung cancer symptoms

The symptoms of lung cancer can be

- Having a cough most of the time
- A change in a cough you have had for a long time
- Being short of breath
- Coughing up phlegm (sputum) with signs of blood in it
- An ache or pain when breathing or coughing
- Loss of appetite
- Tiredness (fatigue)
- Losing weight

Less common symptoms of lung cancer

There are other symptoms of lung cancer that are less common. They are usually associated with more advanced lung cancer. They include

- A hoarse voice
- Difficulty swallowing
- Swelling of the face or neck
- Changes in the shape of your fingers and nails (finger clubbing)
- Shortness of breath caused by fluid around the lungs (pleural effusion)
- Pain or discomfort under your ribs on your right side (from cancer cells in the liver)

All of these symptoms can be caused by other diseases apart from lung cancer. Some types of lung cancer can produce hormones, causing symptoms that don't seem to be anything to do with the lungs.

Types of lung cancer

There are several different types of cancer that start in the lungs (primary lung cancer). There are two main types - small cell lung cancer and non small cell lung cancer.

Small cell lung cancer is so called because the cancer cells are small. About 1 in 10 lung cancers diagnosed are small cell.

Non small cell lung cancers fall into 3 common types. These are grouped together because they behave in a similar way. They respond to treatment differently to small cell lung cancer. The 3 types are squamous cell carcinoma, adenocarcinoma, and large cell carcinoma. About 9 out of 10 lung cancers diagnosed are non small cell.

Cancer that has spread into the lungs (secondary lung cancer)

Secondary cancer is cancer that has spread from somewhere else in the body. The choice of cancer treatment depends on where the cancer started. So if you had breast cancer which has spread to the lungs, then you need to look at information about breast cancer.

Mesothelioma

This is a rare type of cancer that grows in the covering of the lung (the pleura). It is often caused by exposure to asbestos. It is very different to lung cancer and has different treatment.

Should I see a lung specialist?

The symptoms of lung cancer can be very similar to symptoms of other less serious conditions. So it can be very difficult for GPs to decide who might have a cancer and who may have something more minor. The National Institute for Health and Care Excellence (NICE) has produced guidelines for GPs to help them decide which patients need to be seen urgently by a specialist.

You should have an urgent chest X-ray if you

- Cough up blood
- Have blood in your phlegm

Or have any of the following symptoms for longer than 3 weeks with no apparent cause

- A cough (with or without any of these other symptoms)
- Pain in the shoulder or chest
- Difficulty breathing or a hoarse voice
- Marked loss of weight
- Lumps in your neck or above your collarbone (enlarged lymph nodes)
- Thickening and broadening of the fingertips (clubbing)
- Unexplained changes to symptoms from a lung disease you already have

You should see a specialist urgently (ideally within 2 weeks) if

- Your chest X-ray has signs suspicious of lung cancer
- You are an ex smoker or a smoker over 40 coughing up blood
- You have a history of asbestos exposure and have recently started to get chest pain and shortness of breath

You need to see a specialist straight away if you have

- Swelling of your face and neck
- A particular type of very noisy breathing called stridor.

Lung cancer research

There are several areas of active lung cancer research. Trials and studies are looking into causes, screening, treatments and living with lung cancer. Cancer Research UK are committed to making a difference to people with lung cancer. Our research was behind some of the drugs that have had the biggest impact on treating this disease – including cisplatin, carboplatin, pemetrexed and etoposide. Lung cancer research continues to be a priority for Cancer Research UK.

Researching the causes and prevention of lung cancer

We know that smoking causes most cases of lung cancer. Researchers are looking into why people smoke and how to help them give up. We are also looking at how to stop young people from taking up smoking in the first place. Researchers are looking into other causes of lung cancer. This includes research into diet and exercise (physical activity).

Some researchers are trying to find gene changes that may cause lung cancer.

What to ask your doctor about lung cancer

- How will I know if I have lung cancer?
- Am I more likely to get lung cancer than anyone else?
- I used to smoke so does that mean I will get lung cancer?
- How can I give up smoking?
- My father and grandfather had lung cancer so am I at high risk?
- Is there any screening I can have for lung cancer if I am at high risk?
- Is there a high level of radon gas in this area?

For more information, visit our website <http://www.cruk.org/cancerhelp>

You will find a wide range of detailed, up to date information for people affected by cancer, including a clinical trials database that you can search for trials in the UK. Our information is based on the best current scientific evidence and reviewed regularly by leading clinicians and experts in health and social care.

For answers to your questions about cancer call our Cancer Information Nurses on 0808 800 4040 9am till 5pm Monday to Friday.

Adapted from Cancer Research UK's Patient Information Website CancerHelp UK in July 2014. CancerHelp UK is not designed to provide medical advice or professional services and is intended to be for educational use only. The information provided through CancerHelp UK and our nurse team is not a substitute for professional care and should not be used for diagnosing or treating a health problem or disease. If you have, or suspect you may have, a health problem you should consult your doctor. Copyright Cancer Research UK 2014. Cancer Research UK is a registered charity in England and Wales (1089464), Scotland (SC041666) and in the Isle of Man (1103)