



Lung cancer

What is lung cancer and how is it caused?

Your body is made up of many different types of cells. Normally, your body tightly controls the production of new cells when they're needed. Cancer develops when certain cells escape from your body's control and start to change. These abnormal cells, also called cancer cells, start to increase and grow to form a lump. This is called a tumour.

If the cancer starts in your lung, it's called **primary lung cancer**. If it starts in another part of your body and spreads to affect your lung, it's called **secondary lung cancer**.

The lung is a relatively common site for other cancers to spread to. The management and prognosis of secondary lung cancer is different to that of primary lung cancer.

There are different types of lung cancer. The main types are:

- **non small cell lung cancer (NSCLC):** This is the most common kind of lung cancer. There are three common types of non small cell lung cancer: adenocarcinoma, squamous cell carcinoma and large cell carcinoma.
- **small cell lung cancer (SCLC):** This is much less common. It usually spreads more quickly and is often at an advanced stage when it's diagnosed.
- **mesothelioma (blf.org.uk/mesothelioma):** This is a cancer of the lining of the lung (the pleura) and is often associated with asbestos exposure, commonly through work.

What causes lung cancer?

Anyone can develop lung cancer, but around 85% of cases occur in people who smoke or who used to smoke. Your risk of getting lung cancer increases with the number of cigarettes you've smoked and the number of years you've been a smoker. If you stop smoking, the risk gets lower over time – after 10 years, your risk of lung cancer falls to half that of a smoker.

Ask your health care professional or pharmacist for help to stop smoking. You're around 3 times as likely to quit with help from support services and medication. Get help and advice on stopping smoking at blf.org.uk/smoking

Breathing in other people's smoke (passive smoking) over a long period can also increase your risk of getting lung cancer. Other environmental factors, such as exposure to asbestos ([blf.org.uk/support-for-you/asbestos-related-conditions/what-is-asbestos](https://www.blf.org.uk/support-for-you/asbestos-related-conditions/what-is-asbestos)) and radon ([blf.org.uk/support-for-you/indoor-air-pollution/causes](https://www.blf.org.uk/support-for-you/indoor-air-pollution/causes)), can increase the risk as well.

It's increasingly recognised that other factors, such as air pollution ([blf.org.uk/support-for-you/air-pollution/effects](https://www.blf.org.uk/support-for-you/air-pollution/effects)), as well as a variety of occupations are associated with an increased risk of getting lung cancer.

People who've never smoked are more likely to develop one particular type of lung cancer called **adenocarcinoma**.

Lung cancer usually affects people over the age of 60. Younger people can develop lung cancer, but this is less common.

What are the symptoms of lung cancer?

You may not have many symptoms of lung cancer until a tumour becomes quite large. This means it might only be discovered when you have an X-ray or scan for a different reason.

You may begin to experience symptoms, such as:

- a cough
- lots of chest infections
- feeling out of breath either at rest or when doing day to day tasks
- chest pain
- feeling tired
- appetite loss
- weight loss
- a hoarse voice
- blood in your mucus or phlegm

If you have these symptoms, you should see your doctor.

Having these symptoms doesn't necessarily mean you have lung cancer – they're common and have many different causes. People with long-term lung disease might already have many of them. But it's very important to tell your doctor if your usual symptoms change or become worse.

If you have a tumour that has spread outside your lungs, the first symptom might not come from your chest at all. In this case, symptoms might include:

- back pain
- bone pain or fracture
- nerve or brain damage – this might affect walking, talking, behaviour or memory
- confusion
- swallowing difficulties
- jaundice – when your skin or eyes become yellow

How is lung cancer diagnosed?

If your doctor thinks you might have lung cancer, you'll be referred to a special clinic at the hospital called the rapid access clinic or urgent cancer clinic. If you live in England, you should see a specialist within 2 weeks of referral. There are similar targets for the rest of the UK.

At your first appointment you'll usually see a doctor who specialises in lung diseases. The doctor will ask you about your symptoms and medical history. They will also examine you. You can help by bringing a list of any medicines you're taking.

The doctor will explain the results of any tests you've had and will tell you what further tests you need. These might include:

- a **CT scan**: this uses a special X-ray machine to produce a detailed image of the inside of your body. Before having a CT scan, you'll be given an injection containing a dye that makes your lungs show up more clearly. You may already have had a CT scan by the time of your first appointment
- a **biopsy**: this is when a sample of tissue is taken from the tumour
- a **bronchoscopy**: this is when your doctor uses a thin, flexible telescope, called a bronchoscope, to look inside your lungs. The bronchoscope is passed through your nose or mouth and down your windpipe. If the tumour is visible, your doctor can take a sample
- an **endobronchial ultrasound (EBUS)**: this is similar to a bronchoscopy. It uses a thin, flexible tube like a bronchoscope, which has an ultrasound scanner in the tip. This is passed into the windpipe through the mouth. It allows the doctor to scan and take tissue samples of lymph nodes in your chest
- **PET-CT scan**: this is a painless procedure where you're injected with a slightly radioactive substance which can be detected by a scanner to show if the cancer has spread to other areas of your body
- These tests will help your doctor find out where the cancer is in your body and what stage it's at. This means how big it is and how much it has spread.

Stages of cancer

There are different stages of lung cancer. Working out the stage differs for different types of cancer. Here's an example of one way:

- stage 0 – the cancer is where it started and hasn't spread
- stage 1 – the cancer is small and hasn't spread anywhere else
- stage 2 – the cancer has grown, but hasn't spread
- stage 3 – the cancer is larger and might have spread to surrounding tissues or lymph nodes
- stage 4 – the cancer has spread from where it started to at least one other organ. This is also known as secondary or metastatic cancer

Your treatment

Next, you'll see your specialist doctor or nurse to discuss your test results and treatment options. You'll be offered the types of treatment best for you. You might want to talk to your family or a doctor you know well before deciding about your treatment. It is by this appointment you should meet your clinical nurse specialist. If you have more questions, or want to talk to someone, you can call our helpline on **03000 030 555**.

The multidisciplinary team

You will be looked after by a team of health care professionals who specialise in diagnosing and treating lung cancer. This is called a multidisciplinary team. The doctor or nurse you see at your first appointment is part of the team.

Another important member of the team is your lung cancer clinical nurse specialist. They are there to support you through your diagnosis, treatment and follow-up. You can contact them between your scheduled hospital visits.

The team also includes oncologists (cancer specialists), radiologists (specialists in radiology which is used to diagnose and treat cancer), pathologists and surgeons. They meet every week to discuss your test results and plan your care.

What is the treatment for lung cancer?

If you live in England, your hospital should aim to start treatment within one month of diagnosis. If you live in the rest of the UK, you should start treatment within one month of the decision to treat. This should be within two months of your original urgent referral.

In some cases, it can take longer to diagnose or treat your condition. Waiting for tests and results can be frustrating and upsetting. Remember that it's important to get the right treatment as well as getting treatment quickly.

In the past 10 years there's been a lot of progress in lung cancer treatments. People are usually given more than one treatment at a time and you might have several courses of treatment.

The outcome of lung cancer has gradually improved over recent years. Survival is closely related to stage of disease. If the cancer is detected and treated at an early stage, more people will survive for longer. The main treatments for lung cancer are:

- surgery
- drug therapies
- radiotherapy
- palliative care

Surgery

There are a few different types of surgery. The surgeon might remove a section of your lung or your whole lung.

Drug therapies

These include:

- chemotherapy: This is medication that attacks cancer cells. They may be delivered straight into your bloodstream through a drip or you might have injections or tablets.
- targeted treatments: These are medicines, such as erlotinib, gefitinib and crizotinib, that stop the genetic mutations that cause some types of lung cancer. They can be very effective.
- immunotherapies: These are medicines that work on the immune system in the body to enhance its response to cancer cells. An example is pembrolizumab, which can be used on its own or in combination with chemotherapy to treat metastatic NSCLC.

Radiotherapy

This treatment uses high-energy X-rays to destroy cancer cells. This can be both curative and palliative – helping to manage symptoms.

Palliative care

These are treatments to help reduce your symptoms and improve your quality of life. This includes controlling pain and symptoms such as fatigue, anxiety and breathlessness. Palliative care is there to provide support at all stages of cancer. There's evidence to show that in some cases, early palliative care can lead to significant improvements in your quality of life and mood.

When your treatment ends, you should have a follow-up appointment within six weeks to discuss your ongoing care. Your cancer nurse specialist will be an important contact during and following your treatment. Your GP can tell you if there are any community-based cancer nurse specialists in your area.

End of life care

Sometimes lung cancer can't be cured. End of life care is designed to make you as comfortable as possible.

This includes palliative care to control pain and other symptoms. It also aims to support you, your family and carers emotionally, spiritually and practically before and after death or bereavement.

Talk to your doctor or nurse about your local services. Find out more about end of life care (blf.org.uk/end-of-life)

Support

Taking care of your feelings

Being diagnosed with lung cancer can be frightening, and it's normal to feel overwhelmed. When you're ready, it's important that you feel able to talk about your feelings.

You may find it helpful to talk to friends and family. You can also talk with your cancer nurse specialist. If you need more support, your specialist nurse can help you find a counsellor or psychologist. Some GP practices have a counsellor as part of their team.

If someone close to you has been diagnosed with lung cancer, it's normal to feel a range of emotions. And it's important to look after yourself and get support. Macmillan Cancer Support has information on when someone close to you has cancer (www.macmillan.org.uk/cancer-information-and-support/supporting-someone/emotional-support-for-family-and-friends/your-feelings-when-someone-has-cancer).

Our helpline and other organisations

Call our helpline on **03000 030 555** to find out more about lung cancer, ask about medication or simply to talk to someone who cares.

There are other organisations that also offer information and support:

Roy Castle Lung Cancer Foundation (www.roycastle.org/)
Macmillan Cancer Support (www.macmillan.org.uk/)

If you've been diagnosed with lung cancer you may be entitled to financial support, such as free prescriptions. Take a look at our welfare benefits information at [blf.org.uk/welfare-benefits](https://www.blf.org.uk/welfare-benefits)

We have more information about dealing with your mental health when living with a long-term lung condition. Read more at [blf.org.uk/support-for-you/dealing-with-your-mental-health](https://www.blf.org.uk/support-for-you/dealing-with-your-mental-health)

If you've been diagnosed with a lung condition and have symptoms that affect your driving, you must tell DVLA. Find out more at www.gov.uk/lung-cancer-and-driving

We have more free information on living with a lung condition which you might find useful. Read more at [blf.org.uk/support-for-you](https://www.blf.org.uk/support-for-you)

Get in touch with us to find support near you.

Helpline: **03000 030 555**

Monday to Friday, 9am-5pm

Ringing our helpline will cost the same as a local call.

helpline@blf.org.uk

[blf.org.uk](https://www.blf.org.uk)

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We value feedback on our information. To let us know your views, and for the most up to date version of this information and references, call the helpline or visit [blf.org.uk](https://www.blf.org.uk)