

Lung cancer

This information is about lung cancer and treatments for lung cancer.

This information is about **cancer that starts in the lung** (primary lung cancer). It is not about cancer that starts somewhere else in the body and spreads to the lungs (secondary lung cancer).

Any words that are underlined> are explained in the word list at the end. The word list also includes the pronunciation of the words in English.

If you have any questions about this information, ask your doctor or nurse at the hospital where you are having treatment.

You can also call Macmillan Cancer Support on freephone **0808 808 00 00**, Monday to Friday, 9am to 8pm. We have interpreters, so you can speak to us in your own language. When you call us, please tell us in English which language you need (say "xxxx").

There is more cancer information in [language] at [macmillan.org.uk/translations](https://www.macmillan.org.uk/translations)

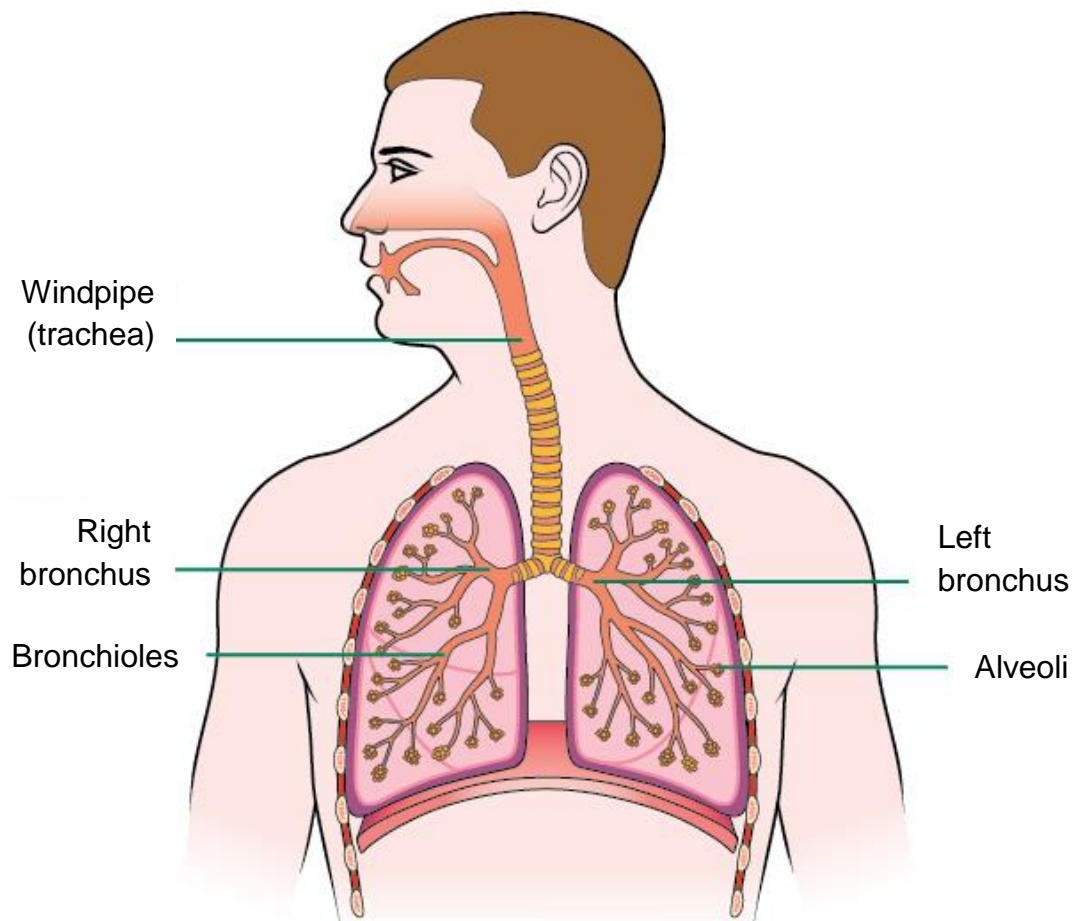
This information is about:

- The lungs
- Lung cancer
- How treatment is planned
- Talking to your healthcare team
- Treatments for lung cancer
- Surgery
- Chemotherapy
- Radiotherapy
- Targeted therapy and immunotherapy drugs
- Other treatments
- Controlling symptoms
- After treatment
- Your feelings
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The lungs

We have two lungs in our chest that help us to breathe.

When we breathe in, air passes from our nose or mouth through the windpipe (trachea). This divides into two tubes, one going to each lung. These are called the right bronchus and left bronchus. They divide into smaller tubes called bronchioles. At the end of the bronchioles are millions of tiny air sacs called alveoli. This is where oxygen from the air we breathe goes into the blood.



Lung cancer

All parts of the body are made up of tiny cells. Lung cancer happens when cells in the lung grow in an uncontrolled way and form a lump called a tumour.

There are two main types of lung cancer:

- non-small cell lung cancer – this is the most common type
- small cell lung cancer – this makes up about 1 in 7 lung cancers (about 15% of lung cancers).

Most lung cancers are caused by smoking cigarettes. But about 1 in 10 people who get lung cancer (10%) have never smoked.

If you smoke, your doctor will usually advise you to stop smoking. This can help make your treatment work better and reduce side effects. It also helps your long-term health. Your doctor or hospital can offer treatments to help you to stop smoking.

Lung cancer is not infectious. This means it cannot be passed on to other people.

Stages of lung cancer

Your doctor will do tests to find out what stage the lung cancer is. The stage of a cancer tells you how big it is and whether it has spread. Sometimes, cancer cells can spread to other parts of the body through the blood or lymphatic system.

Knowing the stage of the cancer helps your doctors to plan the best treatment for you.

Lung cancer is divided into four stages:

- **Stage 1** – The cancer is small and only in the lung.
- **Stage 2 or 3** – The cancer has spread into areas around the lung.
- **Stage 4** – The cancer has spread to other parts of the body.

If you have small cell lung cancer, your doctors might use a different staging system. This divides lung cancer into two stages – limited disease and extensive disease. Your doctor will explain this system to you if they are using it.

How treatment is planned

Your healthcare team will plan the treatment they think is best for you. Your doctor or nurse will talk to you about the treatment plan. Your treatment plan will depend on several things, such as:

- the type of lung cancer you have
- the stage of the cancer
- the benefits and risks of different treatments
- your general health
- your personal preferences.

Talking to your healthcare team

It is important to talk about the treatment plan with your cancer doctor or nurse, so that you understand what it means. You may also want to talk to a relative or friend about it.

After talking with you, your doctor will ask you to sign a form to show that you understand and agree to the treatment. This is called giving your consent. You will not be given treatment unless you have agreed to it.

It is a good idea to take someone with you who can speak both [language] and English. Your hospital can arrange an interpreter for you. Tell your nurse if you need one.

Questions to ask about your treatment

Here are some questions you could ask your healthcare team, to make sure you understand the treatment and how it may affect you:

- What is the aim of my treatment?
- Which treatments are available?
- What are the benefits, risks and side effects of each treatment?
- How will the treatment affect my daily life?
- Who can I talk to about how I am feeling?

Treatments for lung cancer

Treatments for lung cancer include:

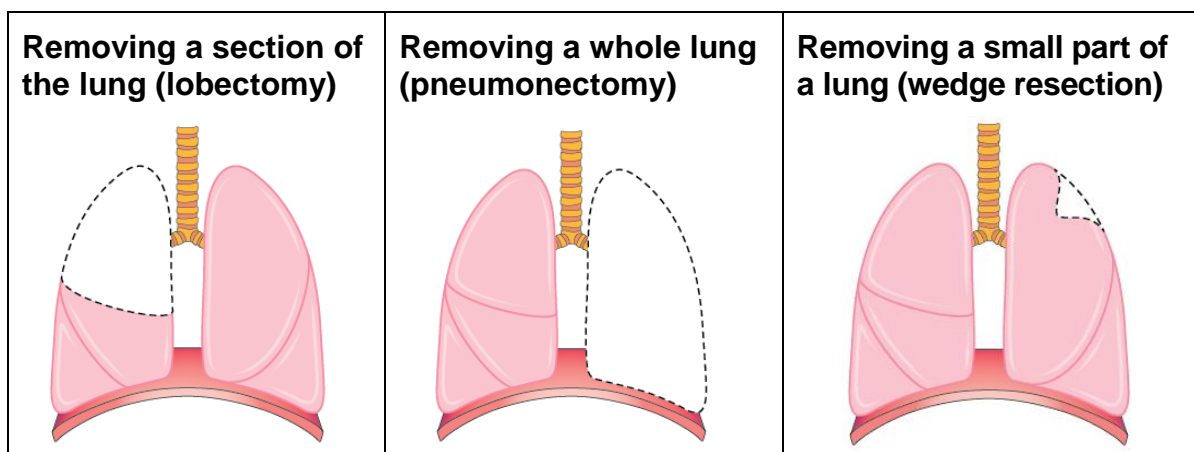
- an operation (surgery)
- cancer drugs (chemotherapy or targeted therapy)
- radiotherapy.

You may have more than one type of treatment. The treatment will also depend on the type of lung cancer you have and the stage of the cancer.

Surgery

For some people, it may be possible to remove the cancer with an operation. This depends on the type and stage of the cancer, and your general health.

Before surgery, you will have tests to check how well your lungs are working. The three main operations to remove lung cancer are shown below.



We have more information in [language] about how surgery is planned and what to expect after the operation. Visit [macmillan.org.uk/translations](https://www.macmillan.org.uk/translations)

Chemotherapy

Chemotherapy uses drugs to destroy cancer cells.

Chemotherapy can be used at different times for different reasons.

When?	Why?
Before <u>surgery</u> or <u>radiotherapy</u>	To shrink the cancer
After <u>surgery</u> or <u>radiotherapy</u>	To destroy any <u>cancer cells</u> left behind
At the same time as <u>radiotherapy</u> (this is called chemoradiation)	This strong treatment can be used if an operation is not possible, or if the cancer has spread outside the lung
On its own, to control advanced cancer (this is called <u>palliative treatment</u>)	To control cancer that is advanced and help reduce symptoms

Chemotherapy is usually given as several sessions of treatment, with rest periods in between the treatments. The treatment is usually given into a vein by a drip or injection. Your doctor will tell you how many treatment sessions you will need and how long it will take. It may take several months to complete your course of chemotherapy.

Side effects of chemotherapy

Chemotherapy drugs can cause side effects that make you feel unwell.

Your doctor can talk to you about the side effects you may have, and how to manage them. Most side effects can be controlled with other medicines and most will go away after your chemotherapy ends.

We have more information in [language] about chemotherapy and some of the side effects you may have. Visit macmillan.org.uk/translations

Radiotherapy

Radiotherapy uses high-energy rays, such as x-rays, to destroy cancer cells. It can be given for different reasons.

When?	Why?
On its own as the main treatment	To try to cure an <u>early stage</u> lung cancer
After an operation	To destroy any <u>cancer cells</u> left behind
At the same time as <u>chemotherapy</u> (this is called chemoradiation)	This strong treatment can be used if an operation is not possible, or if the cancer has spread outside the lung
Before or after <u>chemotherapy</u>	To shrink or control the cancer
On its own, to control symptoms (this is called <u>palliative treatment</u>)	To control symptoms caused by the cancer like breathlessness or pain

Some people with small cell lung cancer have radiotherapy to the brain. This is given to prevent any cancer cells that may have spread to the brain from growing into a new tumour. If you need this treatment, your doctor or nurse will explain it to you.

There are different ways of having radiotherapy. It is often given from outside the body by a machine (external radiotherapy):



However, there are other ways to have radiotherapy. Your cancer doctor will tell you more about the type of radiotherapy you are having.

Many people have radiotherapy as an outpatient. This means you come to hospital for treatment and then go home again that day.

Your treatment plan depends on the type of lung cancer you have, the stage of the cancer and your general health. Your cancer doctor will tell you what your radiotherapy treatment will involve.

We have more information in [language] about radiotherapy. Visit macmillan.org.uk/translations

Targeted therapy and immunotherapy drugs

These drugs may be used to treat non-small cell lung cancer that has spread. Your doctor will explain more about the type of drug that is best for you and the possible side effects.

Targeted therapy drugs can stop the cancer cells from growing and multiplying. You may need tests to find out if they are likely to work for you. You take the drugs as tablets or capsules.

Immunotherapy drugs help your immune system to recognise and destroy cancer cells. This may help to shrink the cancer and make it grow less quickly. The drugs are given into a vein through a drip.

Other treatments

Other treatments can also be used to treat lung cancer or to control symptoms.

Radiofrequency ablation (RFA) uses heat to destroy cancer cells. The doctor places a needle into the tumour and passes an electrical current through it to destroy the cancer cells.

Photodynamic therapy (PDT) uses light to destroy cancer cells. First, you are given a special drug that is sensitive to light. Then, you wait a few hours to allow the drug to be absorbed by the cancer cells. After a few hours, the doctor passes a tube down your windpipe (see page 2) and shines a light onto the tumour in your lung. The light helps to make the drug active, which helps destroy the cancer cells.

Controlling symptoms

If the cancer is advanced, there are lots of ways to control any symptoms you may have. Your doctor can give you different drugs or medicines to help with symptoms. Always tell your doctor if symptoms do not improve.

Blocked airway

Sometimes, lung cancer can block or narrow one or more airways in the lungs. This can cause breathlessness. Different treatments can be used to relieve a blocked airway:

- There are treatments that use very cold temperatures to freeze and destroy cancer cells.
- There are treatments that use an electrical current to destroy cancer cells.
- Radiotherapy can also be given to the cancer from inside the body.
- Some people have a small tube called a stent put into their airway to keep it open.

A build-up of fluid

If fluid collects in the lung, your doctor can usually remove it using a needle and drainage tube. Or you may be able to have a procedure that helps to stop fluid collecting around the lungs.

After treatment

After your treatment has finished, you will have regular check-ups and tests. These may continue for several years. At first they will be quite regular, but over time you will have them less often.

Your feelings

You may feel overwhelmed when you are told you have cancer. You may have many different emotions. Some people feel upset, shocked or anxious, while others feel angry, guilty or alone. There is no right or wrong way to feel. But there are many ways to cope with your emotions. Talking to a close friend or relative may help. Remember, help is always available if you need it. If you are struggling to cope, speak to your doctor or nurse. Some people find counselling very helpful. Your doctor or nurse can refer you.

How Macmillan can help you

Macmillan is here to help you and your family. You can get support from:

- **The Macmillan Support Line (0808 808 00 00).** We have interpreters, so you can speak to us in your language. Just tell us, in English, the language you want to use. We can answer medical questions, give you information about financial support, or talk to you about your feelings. The phone line is open Monday to Friday, 9am to 8pm.
- **The Macmillan website (macmillan.org.uk).** Our site has lots of English information about cancer and living with cancer. There is more information in [language] and other languages at macmillan.org.uk/translations
- **Information and support services.** At an information and support service, you can talk to a cancer support specialist and get information about cancer. Find your nearest centre at macmillan.org.uk/informationcentres or call us. Your hospital might have a centre.
- **Local support groups** – At a support group you can talk to other people affected by cancer. Find a group near you at macmillan.org.uk/supportgroups or call us.
- **Macmillan Online Community** – You can also talk to other people affected by cancer online at macmillan.org.uk/community

Word list

Word (target language)	In English	How to say in English (transliteration of English word)	Meaning
	Cells		The tiny building blocks that make up the organs and tissues of our body.
	Cancer cells		<u>Cells</u> in the body that have become abnormal and are now cancer.
	Side effects		Unwanted effects of cancer treatment. For example, hair loss, feeling sick or tiredness.
	Stage		The stage of a cancer tells you how big it is and whether it has spread.
	Early stage		Cancer that has only just started to grow and has not spread to other parts of the body.
	Infection		When bacteria gets into your body and causes an illness.
	Lymphatic system		A network of tubes and glands throughout the body. They help to fight <u>infection</u> . They also drain excess fluid out of tissues and organs.
	Tumour		A group of <u>cancer cells</u> that have formed a lump.
	Staging system		A set of rules that helps doctors decide what <u>stage</u> a cancer is.
	Healthcare team		The team of medical experts and other professionals that look after you.
	Consent		Giving permission for something to happen or agreeing to do something.

	Chemotherapy		A cancer treatment that uses drugs to destroy <u>cancer cells</u> .
	Targeted therapy		A cancer treatment that uses drugs that target and destroy <u>cancer cells</u> .
	Radiotherapy		A cancer treatment that uses high-energy rays, such as x-rays, to destroy <u>cancer cells</u> .
	Palliative treatment		Treatment given to someone with a cancer that can't be cured. This may include treatment to shrink the cancer, or treatment to reduce symptoms and make the person more comfortable.
	Immunotherapy		A cancer treatment that works by helping the <u>immune system</u> to recognise and destroy <u>cancer cells</u> .
	Immune system		Your immune system is your body's way of protecting you from harmful bacteria and <u>infections</u> .
	Radiofrequency ablation (RFA)		A cancer treatment that uses heat to destroy <u>cancer cells</u> .
	Photodynamic therapy (PDT)		A cancer treatment that uses light to destroy <u>cancer cells</u> .
	Airway		A passage or tube in the body that air can move through to reach the lungs.

More information in [language]

We have information in [language] about these topics:

<p>Types of cancer</p> <ul style="list-style-type: none">• Breast cancer• Large bowel cancer• Lung cancer• Prostate cancer <p>Treatments</p> <ul style="list-style-type: none">• Chemotherapy• Radiotherapy• Surgery	<p>Coping with cancer</p> <ul style="list-style-type: none">• If you're diagnosed with cancer – A quick guide• Claiming benefits• Eating problems and cancer• End of life• Healthy eating• Tiredness (fatigue) and cancer• Side effects of cancer treatment• What you can do to help yourself
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To see this information, go to macmillan.org.uk/translations

Speak to us in [language]

You can call Macmillan free on **0808 808 00 00** and speak to us in [language] through an interpreter. You can talk to us about your worries and medical questions. Just say [language] in English when you call (say “xxxxx”).

We are open Monday to Friday, 9am to 8pm.

References and thanks

This information has been written and edited by Macmillan Cancer Support's Cancer Information Development team. It has been translated into [language] by a translation company.

The information included is based on the Macmillan booklet **Understanding lung cancer**. We can send you a copy, but the full booklet is only available in English.

This information has been reviewed by relevant experts and approved by our Senior Medical Editor, Dr David Gilligan, Consultant Oncologist.

With thanks to: Carol Davies, Macmillan Lung Cancer Nurse; Clair Haslop, Clinical Nurse Specialist, Lung Cancer; Professor Sam Janes, Professor of Respiratory Medicine; Mr David Lawrence, Cardiothoracic Surgeon; Dr Fiona MacDonald, Consultant Clinical Oncologist; Dr Rhona McMenemin, Consultant Clinical Oncologist; Dr Sanjay Popat, Consultant Thoracic Medical Oncologist; and Professor Denis Talbot, Professor of Cancer Medicine.

Thanks also to the people affected by cancer who reviewed this information.

All our information is based on the best evidence available. For more information about the sources we use, please contact us at **cancerinformationteam@macmillan.org.uk**

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We make every effort to ensure that the information we provide is accurate but it should not be relied upon to reflect the current state of medical research, which is constantly changing. If you are concerned about your health, you should consult your doctor. Macmillan cannot accept liability for any loss or damage resulting from any inaccuracy in this information or third-party information such as information on websites to which we link.

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