

## 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 how to say 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**, 7 days a week, 8am 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.

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

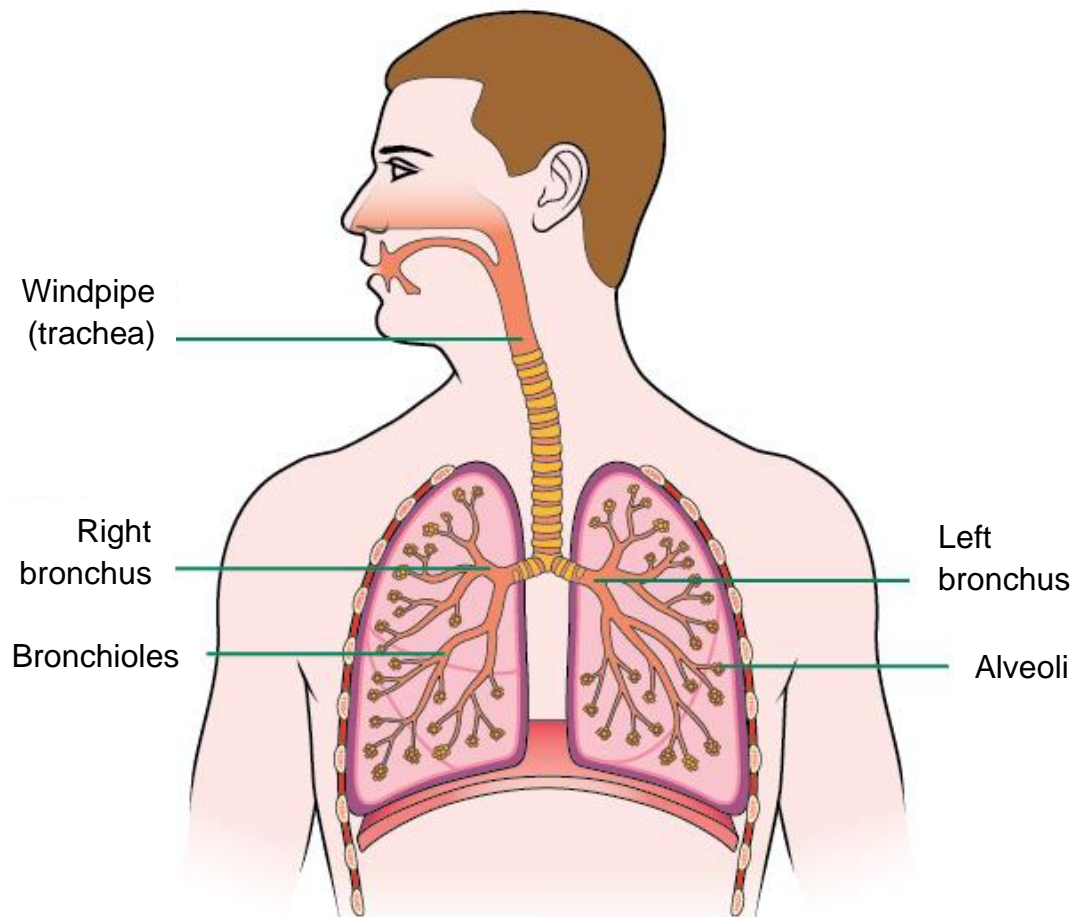
### This information is about:

- 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
- How Macmillan can help you
- Word list
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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 lung cancer and there are 3 main types: adenocarcinoma, squamous cell carcinoma, and large cell lung cancer.
- **small cell lung cancer** – about 1 in 7 (15%) of lung cancers are small cell 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 in the lung is bigger. It has usually spread into areas around the lung.
- **Stage 4** – The cancer has spread further, for example, to the other lung or 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 your 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:

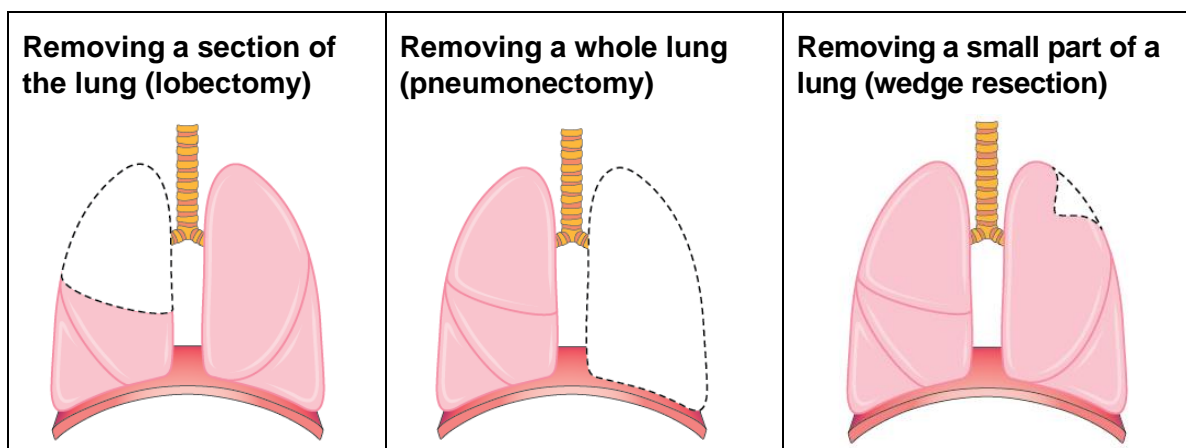
- an operation (surgery)
- cancer drugs (chemotherapy or targeted therapy)
- radiotherapy.

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. Surgery is rarely used to treat small cell lung cancer. Other treatments are used instead.

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.



Sometimes 2 lobes of the lung are removed. The surgeon may do this operation if the cancer has spread to two lobes next to each other. The operation is sometimes called a bilobectomy.

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

## Chemotherapy

Chemotherapy uses drugs to destroy cancer cells.

Chemotherapy can be used at different times for different reasons.

<b>When?</b>	<b>Why?</b>
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
Along with targeted or immunotherapy drugs	To help shrink and control the cancer
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.

Some people with non-small cell lung cancer continue with chemotherapy if it is working well. This is sometimes called maintenance treatment.

### Side effects of chemotherapy

Chemotherapy drugs can cause side effects that make you feel unwell. If you have chemotherapy with radiotherapy the side effects can be worse.

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 your language about chemotherapy and some of the side effects you may have. Visit [macmillan.org.uk/translations](http://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):



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 your language about radiotherapy. Visit [macmillan.org.uk/translations](http://macmillan.org.uk/translations)

## **Targeted therapy and immunotherapy drugs**

These drugs may be used to treat non-small cell lung cancer that has spread. They may help to shrink the cancer and make it grow less quickly. You may have these drugs on their own or with chemotherapy.

Targeted therapy drugs can stop the cancer cells from growing and multiplying. You take them as tablets or capsules. You may need tests to find out if they are likely to work for you. If a drug is likely to work well for you, it may be given as your first treatment.

Immunotherapy drugs help your immune system to recognise and destroy cancer cells. The drugs are given into a vein through a drip. Sometimes immunotherapy drugs are given with another targeted or immunotherapy drug.

## **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 help a blocked airway:

- Some treatments use very cold temperatures to freeze and destroy cancer cells.
- Some treatments use an electrical current to destroy cancer cells.
- Radiotherapy can also be given to the cancer from inside the body.
- A small tube called a stent can be put into the 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 7 days a week, 8am to 8pm.



- **The Macmillan website ([macmillan.org.uk](http://macmillan.org.uk)).** Our site has lots of English information about cancer and living with cancer. There is more information in other languages at [macmillan.org.uk/translations](http://macmillan.org.uk/translations)
- **Information and support services.** At an information and support service, you can talk to a cancer support specialist and get written information. Find your nearest centre at [macmillan.org.uk/informationcentres](http://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](http://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](http://macmillan.org.uk/community)

## Word list

Word	In English	How to say in English	Meaning
	Airway		A passage or tube in the body that air can move through to reach the lungs.
	Cancer cells		<u>Cells</u> in the body that have become abnormal and are now cancer.
	Cells		The tiny building blocks that make up the organs and tissues of our body.
	Chemotherapy		A cancer treatment that uses drugs to destroy <u>cancer cells</u> .
	Consent		Giving permission for something to happen or agreeing to do something.
	Healthcare team		The team of medical experts and other professionals that look after you.
	Immune system		Your immune system is your body's way of protecting you from harmful bacteria and <u>infections</u> .
	Immunotherapy		A cancer treatment that works by helping the <u>immune system</u> to recognise and destroy <u>cancer</u>

			<u>cells</u> .
	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.
	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.
	Photodynamic therapy (PDT)		A cancer treatment that uses light to destroy <u>cancer cells</u> .
	Radiofrequency ablation (RFA)		A cancer treatment that uses heat to destroy <u>cancer cells</u> .
	Radiotherapy		A cancer treatment that uses high-energy rays, such as x-rays, to destroy <u>cancer cells</u> .
	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.
	Staging system		A set of rules that helps doctors decide what <u>stage</u> a cancer is.
	Surgery		A cancer treatment that means having an operation.
	Targeted therapy		A cancer treatment that uses drugs that target and destroy <u>cancer cells</u> .
	Tumour		A group of <u>cancer cells</u> that have formed a lump.

## More information in your language

We have information in your language about these topics:

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

## References and thanks

This information has been written and edited by Macmillan Cancer Support's Cancer Information Development team. It has been translated by a translation company. The information 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. 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](mailto:cancerinformationteam@macmillan.org.uk)

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