

# Chemotherapy for lung cancer



## Introduction

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If you or someone you care for has just been diagnosed with lung cancer then it's almost certain that you will have lots of questions needing answered. This booklet was produced in partnership with lung cancer experts and people affected by lung cancer.

Understanding your lung cancer will help you make informed decisions about your care. Please remember that most healthcare professionals are only too happy to answer your questions and discuss any of your concerns. This booklet should be used along with information provided by your healthcare team.

We hope that this booklet will be of use to you. However, if any of your questions remain unanswered, talk to your cancer doctor or lung cancer nurse specialist, or call the **Roy Castle Lung Cancer Helpline free on 0333 323 7200 (option 2)**. You can also contact one of the many support organisations available (see page 51 of our *Living with lung cancer* booklet). You can also view the support organisations online at **[www.roycastle.org/usefulcontacts](http://www.roycastle.org/usefulcontacts)**

Our Lung cancer - answering your questions pack contains two booklets - *Living with lung cancer* and *Managing lung cancer symptoms*, along with a DVD. Also available are four separate treatment booklets which can be slotted into the pack as required.

- Chemotherapy for lung cancer
- Radiotherapy for lung cancer
- Surgery for lung cancer
- Targeted therapies for lung cancer

You can view and order this information online at **[www.roycastle.org/ayqpack](http://www.roycastle.org/ayqpack)** or call the **Roy Castle Lung Cancer Helpline free on 0333 323 7200 (option 2)**.

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# Understanding chemotherapy for lung cancer

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## What is chemotherapy?

Chemotherapy simply means treatment with chemicals. Those used to treat cancer are called cytotoxic drugs because they poison cells in your body. Chemotherapy drugs are carried by the bloodstream throughout your body. The drugs affect both normal healthy cells and cancerous ones. However, healthy cells are able to repair themselves, unlike cancer cells which die. The growth of cancer cells is not well controlled, so they increase continually (although not always faster than normal). Chemotherapy treatment can interrupt and reverse this process.

Most types of chemotherapy for lung cancer are given directly into a vein through a drip (intravenously). However, there are some types of chemotherapy which are given as a tablet.

Chemotherapy may be used on its own or as part of a combined treatment. It may be given after surgery – this is called adjuvant. It can also be given at the same time as radiotherapy – this is called concurrent.

There are lots of different drugs available to treat lung cancer. They can be given either on their own (single agent) or in a combination. After discussing the treatment options with you, your cancer doctor will decide which chemotherapy drugs are most suitable for you.

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## Why am I getting chemotherapy?

There are several reasons why you may be receiving chemotherapy as a treatment for lung cancer. These include:

- Cure early stage inoperable lung cancer in combination with radiotherapy (chemoradiotherapy).
- Extend length of life when a cure is not possible (palliative).
- Remove any cancer cells which may still exist after surgery for lung cancer (adjuvant).
- Reduce symptoms, such as breathlessness (palliative).

## Chemotherapy for small cell lung cancer

If you have small cell lung cancer (SCLC), chemotherapy is usually the first type of treatment you receive. SCLC cells can often grow and spread quickly (metastasise). Chemotherapy travels in the bloodstream, and throughout most of your body. This usually leads to relief of symptoms and longer survival. Radiotherapy may be given after chemotherapy to try to stop the cancer coming back.

There are a variety of different types of chemotherapy drugs. The most common combination of chemotherapy drugs for people with SCLC contains platinum (cisplatin or carboplatin) and etoposide. Other drug combinations that may be used as further treatment after initial chemotherapy, include: cyclophosphamide, doxorubicin, vincristine and topotecan.

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## **Chemotherapy for non-small cell lung cancer**

Chemotherapy can also be used to treat non-small cell lung cancer (NSCLC). If lung cancer surgery is not suitable for you, you may be offered either chemotherapy on its own or in combination with radiotherapy (if you are fit enough).

If you have had surgery for lung cancer and all of the cancer cells have been removed, you may be offered chemotherapy afterwards. However, if you have had surgery and cancer cells remain, your cancer doctor will discuss whether you should have radiotherapy and/or chemotherapy.

There are a variety of different types of chemotherapy drugs used to treat NSCLC. The most commonly used chemotherapy for people with NSCLC contains platinum (cisplatin or carboplatin) mixed with one of the following drugs: docetaxel, gemcitabine, paclitaxel, pemetrexed and vinorelbine. Your cancer doctor may use a variety of drugs to treat your lung cancer either as a first treatment after diagnosis or if it comes back (relapse).

\* Note that pemetrexed and gemcitabine are only licensed in combination with cisplatin in NSCLC.

### **Maintenance chemotherapy**

If your lung cancer gets smaller after your first course of chemotherapy and you are coping well with few side-effects, your cancer doctor may offer to continue your treatment with more chemotherapy. This is called maintenance therapy. Maintenance therapy is only suitable for some people with certain types of lung cancer.

It may help to continue to slow down the growth of your lung cancer and keep the symptoms of your disease under control for longer.

# Preparing for chemotherapy

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## Where will I go for chemotherapy treatment?

Chemotherapy is usually given as an outpatient in a chemotherapy day unit. However, some chemotherapy treatment requires a stay in hospital. Some chemotherapy drugs come in a tablet version and can be taken at home.

### Chemotherapy Day Unit

Most chemotherapy day units are open Monday to Friday. You can usually make an appointment time to suit both you and your chemotherapy department. If you are receiving your chemotherapy at a day unit it will normally be given directly into a vein through a drip (intravenously). A chemotherapy nurse will care for you while you are receiving your chemotherapy.



### Hospital Stay

There are several reasons why having chemotherapy sometimes requires a hospital stay for a night or two. Some chemotherapy drugs have to be given very slowly, often with fluids given directly into a vein, through a drip, before and after receiving the drug. This can take up to 12

hours and you have to be closely monitored by a chemotherapy nurse during this time.

Your cancer doctor may also want you to stay in hospital to monitor how you react to the drug you have been given.

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## How will my treatment be planned?

The chemotherapy treatment your cancer doctor recommends will depend on several factors. These include:

- The type (pathology) of lung cancer you have.
- The size, position and spread of your lung cancer (stage).
- Your general health and how you will cope with treatment.

You will be offered the best standard treatment available that current research shows is likely to work best for you. This is why you may meet other people with the same cancer as you who are having different chemotherapy treatments.

You may be asked to take part in a chemotherapy clinical trial. This usually involves comparing treatments to help find out which works best.



Please see our *Living with lung cancer* booklet for more information on clinical trials. See page 2 for details on how to get a copy.

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## What tests will I have before chemotherapy starts?

Before you start chemotherapy you will have scans or x-rays. The results of these tests will help cancer doctors to plan your treatment.

Your blood will be checked before treatment and regularly during and after treatment, to see if your white cells (cells that fight infection), haemoglobin (cells that carry oxygen), and platelets (cells that clot the blood) are normal. The blood sample will also check if your blood biochemistry (kidney and liver function) is within normal limits. This is called your blood count. If your blood count is too low you might get a blood transfusion, dose reduction, or delay in your treatment.

It is very important that cancer doctors know what your blood levels (blood count) are before and during chemotherapy. This enables them to tailor your drug treatment appropriately.

## How many treatments will I need?

Chemotherapy is given as a course of treatments - each treatment is called a cycle. This is because at any one time, some cancer cells will be resting. Chemotherapy only works on cells that are active and in the process of dividing. So resting cells will not be killed. Giving chemotherapy in cycles helps to make sure that over time all cancer cells will be treated.

Giving chemotherapy in cycles also gives your body time to recover from any side-effects which you may have experienced.

How often you have each cycle, and how long your chemotherapy treatment lasts altogether, depends on many factors including:

- The type of chemotherapy drugs used.
- Why you are receiving chemotherapy.
- How the cancer cells respond to the drugs.
- How your body copes with any side-effects from the drugs.

## I am frightened of needles and feel sick at the thought of treatment - what should I do?

It is not unusual to be frightened of needles and nursing staff have many ways of reducing your fears. Tell them if you are feeling nervous about needles before you



start your treatment, as there are creams available to numb your skin. Occasionally some people feel sick at the thought of treatment, or perhaps the sight or smell of hospitals. This is called anticipatory nausea and vomiting and can be very successfully helped with a variety of methods, including relaxation techniques, counselling and medication. Discuss your options with your cancer doctor or lung cancer nurse specialist.



Please see our *Living with lung cancer* DVD for more information on chemotherapy. See page 2 for details on how to get a copy.

# Receiving chemotherapy

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## What actually happens when I get my chemotherapy?

When you arrive for your appointment you will be welcomed by a chemotherapy nurse, who will go over your personal details. They will then check your height, weight, blood pressure and temperature. You will either sit in a big comfortable reclining chair or hospital bed to receive your chemotherapy.

Nearly all chemotherapy for lung cancer is given into a vein (intravenously), usually on the back of your hand or forearm. A small plastic needle (cannula) is put into the vein and attached to a drip. You will be given anti-sickness medicines through the drip before starting the chemotherapy.

Some chemotherapy takes quite a long time to receive, so remember to take items such as: a book, magazine or portable music player with earphones with you to keep you occupied. There will be other people receiving chemotherapy at the same time as you, so often there is an opportunity to chat with other patients.

Once the chemotherapy is finished you will be given tablets to take at home to prevent any sickness over the next few days.

*“I expected to have to lie still in bed for the whole day, but actually, even with the drip in, I was able to wander down to the day room and watch telly.”*

*Eileen*

### TOP TIP

Wear comfortable clothing with either short or loose sleeves when you go for your chemotherapy and take your slippers with you.

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### **Can I bring a relative or friend with me?**

Yes, if you can, bring someone with you to your hospital appointment. They usually will be able to sit with you and keep you company while you receive your chemotherapy, although this does vary from unit to unit.

### **Can I drive after receiving chemotherapy?**

Chemotherapy affects people in different ways. Some people feel all right and able to drive after receiving chemotherapy. Others may experience some side-effects and not be able to drive straight away. It is best not to drive to your first chemotherapy appointment and see how you feel after receiving treatment.

If you need help with travelling, your lung cancer nurse specialist may be able to help arrange transport for you.

### **Can I eat or drink while I get my chemotherapy?**

Yes, you will be encouraged to drink plenty and eat as normal while receiving your chemotherapy. Snacks and drinks will be supplied by the hospital. If you have brought a friend or relative with you they will have to supply their own refreshments.

### **I have heard that chemotherapy has very bad side-effects. Is this true and is there anything that can be done about them?**

All forms of cancer treatment have side-effects of one sort or another. Most people have some side-effects from having chemotherapy. Most of these side-effects are manageable and ease with time. It is important to discuss and side-effects with your cancer doctor or lung cancer nurse specialist as they will be able to help.

Common side-effect	Practical advice
Feeling or being sick	There are very powerful anti-sickness drugs, which can help reduce sickness in most patients. Remember to take the tablets for sickness that the hospital has given you. <b>If they don't work let your cancer doctor know, as there is usually an alternative.</b>
Extreme tiredness	<b>This is normal.</b> Although it is important to rest, a small amount of regular exercise will also help reduce your tiredness. If you feel breathless, your legs ache or you are concerned that you feel too tired, ask your GP or hospital team for advice.
Complete hair loss	<b>Although distressing, it is temporary and does not happen with all chemotherapy drugs.</b> If you notice your hair starting to fall out, wear a hairnet at night and a hat/scarf during the day. Don't brush your hair too much or use hair colourants/rollers. <b>Most hospitals will supply advice on how to get a good quality wig of your choice.</b>
Fever and low white blood count	It is important to realise that you are at higher risk than normal of getting an infection which your body can't fight on its own because your immune system is affected by the treatment. Therefore, if anyone you know has an obvious infection (for example: flu, chickenpox, shingles), it is best to stay away.

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## Infection of the blood (neutropenic sepsis)

You are at an increased risk of getting an infection of the blood (neutropenic sepsis) when you are receiving chemotherapy. This can be very serious and needs treated **straight away**. It is very important that you look out for the following:

- **Temperature 37.5C or higher.**
- Uncontrollable shivering or sweating.
- A very sore throat.
- Sickness and diarrhoea.
- A change in your mental state, such as confusion or disorientation.
- Fast breathing.
- Fast heart rate.
- Dizziness.

You might not have any symptoms other than an increased temperature. Check your temperature often with a thermometer. If you have any of the above symptoms please use the contact the hospital straight away, using the contact number given to you on page 20 of this book.

## My mouth is sore - is this normal?

Chemotherapy can cause the lining of the mouth to get sore, often with mouth ulcers. Keep your mouth clean and fresh, with regular tooth/ denture brushing with a soft toothbrush. If you have white patches over the lining of your mouth or your tongue you may have a fungal mouth infection called thrush. This is quite common and you should contact your GP or hospital who will prescribe an anti-fungal medicine to treat it.

### TOP TIP

Drinking pineapple juice can ease the pain of mouth ulcers.

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## Do the side-effects ease with time?

Yes, usually they do ease with time, although in some patients they last longer or start later. If you are going to feel sick it is usually within the first week after treatment. White blood cells and platelets reach their lowest point 10-15 days after treatment. Often the only sign that this has happened is a feeling of tiredness when even the smallest task might feel like a chore. This is also the time when you are most at risk of picking up infections.

In general side-effects usually begin to reduce by the third week after chemotherapy and you should start to feel better. This is your body recovering in time for the next treatment. Unfortunately, some side-effects, for example, tiredness, bad taste in the mouth and tingling in the fingers and toes, may continue for some time after treatment.

*“The third day after chemo I felt better and wanted something to eat, I didn’t do too much and gradually got back to how I felt before.”*

*Kenny*

## How do the doctors know if the chemotherapy is working?

It can be difficult to measure exactly how well it is working, although usually an assessment will be made at some point during your treatment (usually after two-three courses of chemotherapy). Usually this will be done by chest x-ray and/or CT scan.

If you are receiving radiotherapy at the same time as chemotherapy the scan is usually done around two months after completion of treatment. This allows the combination of treatments to finish working and the scan to be more accurate.



If your symptoms have improved this may also suggest that the treatment is working, for example, less cough or breathlessness. If there is evidence that your cancer is responding to the chemotherapy then treatment will continue (as long as you are not having side-effects which you can't cope with). If there is evidence that your cancer is not responding then it is important to know this, so that a decision on an alternative treatment can be

made. Sometimes there will be no change in the state of your tumour when the x-ray or scan has been done. However, the growth of the tumour may have been stopped or slowed by chemotherapy. This is a positive response - especially if you feel better. Chemotherapy may continue to delay the growth for some time.

*“I kept a diary between chemo sessions. It gave me great comfort during treatment to read back about the previous session and how things got better.”*

Val

### **Should I change my diet while I'm having chemotherapy?**

It is quite common to lose your appetite while having chemotherapy and your sense of taste may also be affected. You could find that you have a metallic taste in your mouth or perhaps no taste at all. However, if you are concerned that you are not eating or drinking enough tell your cancer doctor, as there are dietary supplements available on prescription.

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## The following tips may help to make foods taste better:

- Seasonings will help to add flavour to your food.
- Marinating food before cooking may help improve flavour, as may pickles and adding sauces to cold meats.
- Sharp tasting foods such as fruit juices and fresh pineapple will leave a refreshing taste in your mouth. **However, avoid grapefruit as it can interfere with some chemotherapy drugs.**
- Fizzy drinks or lemon (or other fruit) teas may provide a pleasant tasting change from tea and coffee.
- Cold food sometimes tastes better than hot food.
- Avoid strong smelling and fried foods.
- Eat small meals and snacks regularly throughout the day, rather than large ones only at meal times.
- Avoid drinking too much liquid before eating, as this will fill you up.

You will be given a contact number to phone if you experience difficulties with side-effects. This number should be used at times when it may be difficult to contact your lung cancer nurse specialist or cancer doctor, such as during the night or at the weekend. There is space at the end of page 20 for you to write down the phone numbers.

# After chemotherapy finishes

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## How will I feel after treatment ends?

Once you have finished treatment you may be anxious that you are no longer attending the chemotherapy department. You may have been attending for a number of months and suddenly your routine has changed. This change in routine can make you feel a bit low. This is normal. However, slowly you may start to feel that things are getting back to normal.

## How will I be followed up?

After your chemotherapy has finished you will have a scan to find out how your cancer has responded to the treatment. Your cancer doctor will then discuss whether or not you would benefit from further treatment. You will then have regular check-ups with your oncology team. This may include blood tests, scans or x-rays. If you have any problems or notice new symptoms in between your appointments, let your cancer doctor know as soon as possible.

Most cancer doctors follow up patients at the local hospital for a period of five years. If after that time there is no relapse (new disease) you will be discharged from their care.

If you have any problems or worries in between your appointments, contact your lung cancer nurse specialist. You don't have to wait until your next clinic appointment.

Your GP will be sent a report about your treatment.

# Questions to ask

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## Questions to ask your doctor or lung cancer nurse specialist

Before choosing chemotherapy as a treatment option, you should understand the expected benefits, side effects, and risks. Ask your cancer doctor or lung cancer nurse specialist these questions at your next visit. Learn as much as you can about your treatment, and get an idea of the expected outcome.

1. What type of chemotherapy will I be getting?
2. What is the aim of the chemotherapy?
3. Are there other types of treatment that could be suitable for me instead of chemotherapy?
4. What are the risks and side-effects of the chemotherapy I will be having? How do these side-effects compare with side-effects of other treatments?
5. How long will I have to wait before starting treatment?
6. How will I know if the chemotherapy is working?

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7. How will I get the chemotherapy, how often, and for how long?

8. Where will I go for the chemotherapy?

9. What can I do to prepare for treatment and reduce the chance of side-effects?

10. Will I need to change my lifestyle in any way?

11. If this chemotherapy doesn't work, are there other treatments I can get?

12. Are there any clinical trials I would benefit from?

**Lung cancer nurse specialist**

Name:

Phone number:

Other contact phone number:

# Notes

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# About our lung cancer information

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All of our information is written either by our information team or by lung cancer experts. We have a panel of lung cancer experts made up of doctors, nurse specialists and other health professionals involved in the care of people affected by lung cancer. These people help us on a voluntary basis. You can find out about our Expert Panel at [www.roycastle.org/expertpanel](http://www.roycastle.org/expertpanel)

Our information is also reviewed by members of our Reader Panel (made up of people who have experience of lung cancer). This ensures that our lung cancer information meets their needs. You can find out about our Reader Panel at [www.roycastle.org/readerpanel](http://www.roycastle.org/readerpanel)

This booklet was produced in partnership with



Our information is accredited by The Information Standard, which makes sure that it is trustworthy, easy to read and reliable. It also must be based on the best clinical evidence that is available.

The information is evidence based and follows national clinical guidelines for the management of lung cancer. You can find references to sources of information within this booklet at [www.roycastle.org/evidence](http://www.roycastle.org/evidence)

## We value your feedback

If you would like to tell us what you think about this information booklet or would like to join our Reader Panel and review our lung cancer information, please e-mail us at [info@roycastle.org](mailto:info@roycastle.org)

## How we fund our work

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We rely entirely on donations and gifts in Wills to fund our lung cancer research and support people affected by lung cancer. Thanks to the generosity of our supporters, we are able to continue our work.

If you have found this information useful and would like to make a donation, please visit our website at [www.roycastle.org/donate](http://www.roycastle.org/donate) or call us free on **0333 323 7200**

For more information on raising funds for the charity or leaving a gift in your Will, please visit our website at [www.roycastle.org/fundraising](http://www.roycastle.org/fundraising)

### **First Edition: January 2014**

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Registered charity number

England and Wales 1046854 - Scotland SC037596

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ROY CASTLE  
**LUNG CANCER**  
FOUNDATION

Roy Castle Lung Cancer Foundation is the charity that gives help and hope to people affected by lung cancer. The charity has two aims – supporting people living with lung cancer and saving lives.

### **Supporting people living with lung cancer**

Working closely with lung cancer nurses, we provide information, run lung cancer support groups and offer telephone and online support. Our patient grants offer some financial help to people affected by lung cancer.

### **Saving lives**

We fund lung cancer research, campaign for better treatment and care for people who have lung cancer, and raise awareness of the importance of early diagnosis. Our lung cancer prevention work helps people to quit smoking and encourages young people not to start smoking.

### **Contact us**

For more information please call the **Roy Castle Lung Cancer Helpline free on 0333 323 7200 (option 2)** or visit our website at **[www.roycastle.org](http://www.roycastle.org)**

#### **Head Office**

Enterprise Way, Liverpool L13 1FB

**Email:** [foundation@roycastle.org](mailto:foundation@roycastle.org)

#### **Information and Support Services**

98 Holm Street, Glasgow G2 6SY

**Email:** [info@roycastle.org](mailto:info@roycastle.org)

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## **GIVING HELP AND HOPE**



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