

The Radiotherapy Department  
**Radiotherapy to  
the lung**  
Information for patients





## Introduction

This leaflet is for people who have been recommended treatment with radiotherapy to the lung.

The **General Radiotherapy Leaflet** will explain what having the treatment involves, common side effects and some general information about the department. The leaflet – **Radiotherapy to the lung** will provide more detail, specific to the type of treatment planned for you and how you can help yourself during and following treatment.

It is intended as a guide because the timing and effects of treatment may vary from one person to another. This leaflet will highlight the key points of the discussions you will have had with your doctor and treatment team. Family members and friends may also find it helpful.

## Treatment plan

The timing of the radiotherapy in your treatment may depend on your individual situation. Your doctor will discuss this with you.

## Radical radiotherapy

Radiotherapy may be given as the only treatment. 20 to 33 treatments (fractions) are given daily (Monday to Friday) lasting for about four to six and a half weeks. The purpose of this treatment is to slow down or reduce the growth of the tumour in your lung. This is known as **radical** radiotherapy.

## Radiotherapy with chemotherapy

Sometimes radical radiotherapy is given with chemotherapy drugs – this aims to either shrink the tumour so that we can give the treatment to a smaller area or to boost the radiotherapy. Chemotherapy can be given before your course of radiotherapy (induction chemotherapy) or during your course of radiotherapy (concomitant chemotherapy). Your doctor will discuss whether chemotherapy is appropriate for you and which type you will have. The chemotherapy will be given in the Day Therapy Unit just before your radiotherapy appointment. Your treatment team will explain the chemotherapy to you in more detail.

## Radiotherapy to help symptoms

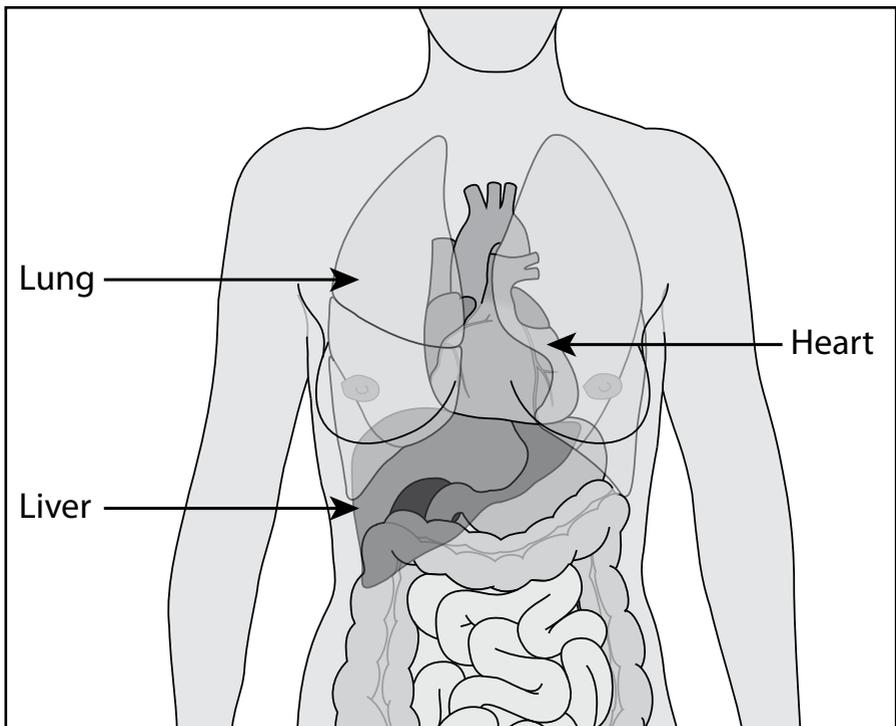
Radiotherapy can also be given to treat symptoms that are causing you problems. These include cough, chest pain, shortness of breath or when you are coughing up blood. This type of radiotherapy is called **palliative** treatment and you may receive one treatment or up to 12 treatments delivered daily Monday to Friday over two and a half weeks. Your doctor will discuss this in more detail with you.

## Radiotherapy before surgery

Your doctors may suggest you have radiotherapy before surgery. It is called **neoadjuvant** radiotherapy. It is sometimes given for a specific tumour called a Pancoast's tumour. It is often given together with chemotherapy (concomitant chemotherapy). This can shrink the tumour and make it easier for the surgeon to remove. Radiotherapy before surgery may also reduce the risk of the cancer coming back in the future by killing off any cells in the area that may have broken away from the main tumour. Radiotherapy is given as an outpatient – you will usually have 25 daily treatments (Monday to Friday) over five weeks.

## Radiotherapy after surgery

Radiotherapy is used after surgery to kill off any tumour cells that may have been left behind. This is called post operative radiotherapy (PORT). Radiotherapy is given as an outpatient – you will usually have 30 daily treatments (Monday to Friday) over six weeks. The treatment will not begin until your wound has completely healed. Radiotherapy given sooner would slow down the healing process.



## Side effects

Radiotherapy treatment is painless. However, there are some side effects which are associated with radiotherapy and you may notice one or more of them gradually developing over the course of treatment.

**Please note that it is rare for one patient to experience all of these side effects.**

If anything is worrying you, however small, during your treatment, please tell your therapy radiographer or radiotherapy nurse practitioner, either at your visit or by phoning the department.

Smoking while you are having treatment can cause your side effects to develop earlier, possibly be worse than usual and harder for you to cope with. We strongly advise you to try to give up smoking. We know this is often difficult and can help you contact services who can advise and support you – please talk to your therapy radiographer or lung nurse practitioner.

### **Tiredness**

You may feel tired especially toward the end of a course of treatment. Listen to your body and if necessary allow yourself extra time to rest or sleep. The tiredness wears off over a few weeks once the treatment ends.

### **Skin reaction**

Most people develop a skin reaction in the area being treated, especially on the back. The area may become red, more dry, sensitive or begin to peel. Please refer to the General Radiotherapy Leaflet, which will tell you how to care for the skin in this area. It is usual for the skin reaction to begin two to three weeks after the beginning of a radiotherapy course. It will last for a small number of weeks after radiotherapy is complete. The redness and soreness will go away completely, but occasionally there may be some longer term skin changes that will be discussed with you if they are likely to be significant.

## **Difficulty swallowing and indigestion**

This may happen if the radiotherapy includes your food pipe (Oesophagus) in the area of treatment. This usually occurs after two to three weeks of treatment and begins to get better about three months after the treatment has finished.

Avoid hot or cold drinks – warm fluids might be more bearable. You might also need to make your food softer and more moist. A combination of pain killers and antacid medicines can help, normally prescribed by your doctor. Always take the medication regularly – before eating and drinking. Check with the treatment team before taking anything other than the drug prescribed. If these problems prevent you eating, we can then refer you to a dietician.

## **Nausea (feeling sick)**

This may occur during your treatment. If we think this is likely then we will give you anti-sickness tablets to take before each treatment. It is important to continue to eat and drink, try eating small meals more frequently. If nausea persists or you are vomiting (being sick) despite taking anti-sickness medication then please tell your therapy radiographer.

## **Cough**

You can develop a cough which maybe dry and tickly or you may cough up blood. This is normal. It may be relieved with sipping a drink. Some people find simple cough medicine helps. The irritation caused by the radiotherapy should settle within a few weeks of completing your treatment. If you develop a lasting cough contact your family doctor. If the sputum changes colour, becomes thicker or you have a temperature please tell the therapy radiographers treating you. It maybe a sign of infection.

## **Chest discomfort**

This can occur in the 24 hours following your treatment. It is more common in patients having one or two treatments. It should go away by itself or you may want to take a simple

painkiller. Tell the therapy radiographer when you attend for treatment or call the triage service (out of hours) if it does not resolve.

### **Temperature and shivering**

Patients, usually having one treatment, can experience shivering and begin to feel hot, within hours of having their radiotherapy. With a simple pain killer, like Paracetamol and rest this should disappear in the following 24 hours.

Usually the side effects you have experienced may become worse for a short while and slowly settle over a few weeks. Please do not worry as this is quite normal. During this time you should continue to follow the advice you have been given during your treatment and take any prescribed medication for the side effects, until they settle down.

## Possible long term side effects

Long term side effects can occur many months to years after radiotherapy has finished. These late side effects are hard to predict and unfortunately if they do occur can be permanent. We plan the treatment to avoid the surrounding areas around the tumour as much as possible to reduce these side effects.

### **Breathlessness**

Radiation can cause inflammation (pneumonitis) and scarring (fibrosis) of the lung. This usually occurs two to three months after finishing treatment. It may be possible to learn breathing exercises or use medication that will help reduce your breathlessness. Your treatment team can advise you.

### **Narrowing of your food pipe (oesophagus)**

Radiation can cause narrowing of the food pipe. If you experience swallowing difficulties greater than three months

after completing your treatment you may need further assessment and treatment. A minor procedure to stretch the food pipe or, very rarely, surgery may be needed.

## **Heart**

Radiation may cause inflammation of the lining surrounding the heart (pericarditis) or some weakening of the heart muscle (myopathy) resulting in chest pain and shortness of breath. This is rare and may require further assessment and treatment. In rare instances radiotherapy may cause some damage to the blood vessels supplying the heart and increase your risk of a heart attack.

## **Bone weakness affecting the ribs**

This is rare, but radiotherapy can make some of the ribs more brittle. After a severe cough or mild trauma this can result in chest pain and/or a minor rib fracture.

## **Spinal cord damage**

This is extremely rare and every effort is made to carefully plan your radiotherapy so as to avoid this. Damage to the spinal cord causes permanent difficulties with walking and loss of sensation in the lower body.

## **After treatment**

After your treatment has finished you will be asked to return to the Outpatients Clinic to be reviewed by your oncology consultant / team. Radiotherapy takes time to work and so it is at this appointment your doctor will assess and discuss your progress with you and what further appointments are needed in the future.

## How to contact us

If you have any queries during your radiotherapy please do not hesitate to ask a therapy radiographer treating you or the radiotherapy nurse practitioners on 01865 235472 during normal working hours or Oxford triage assessment team on 01865 572192 out of hours.

### **Following treatment you can contact**

The lung cancer nurse practitioner team – **01865 226119**  
(Monday - Friday calls received after three o'clock will be returned in the next working day) If urgent please contact main switchboard – **01865 841741** and ask for a lung cancer nurse practitioner to be bleeped.

## Useful Website

### **The Roy Castle Lung Cancer Foundation – Research – Prevention – Support**

[www.roycastle.org](http://www.roycastle.org)

Helpline 0800 358 7200



If you need an interpreter or need a document in another language, large print, Braille or audio version, please call **01865 221473** or email **PALSJR@ouh.nhs.uk**

Author Dr N. Panakis  
Version 3, April 2012  
Review, April 2015  
Oxford University Hospitals NHS Trust  
Oxford OX3 9DU  
[www.ouh.nhs.uk/patientinformation](http://www.ouh.nhs.uk/patientinformation)