

Patient Information

Arden Cancer Centre

Radiotherapy Information for Patients Undergoing Treatment to the Lung

What is Radiotherapy?

Radiotherapy is the use of high-energy radiation, usually X-rays, to kill cancer cells in the area being treated. Radiotherapy can damage normal cells in the treatment area too but they usually repair themselves, whereas cancer cells cannot. The damage to normal cells results in some side effects but radiotherapy is planned very carefully to avoid treating as much healthy tissue as possible in order to reduce these side effects.

Radiotherapy is delivered by highly trained staff called Therapy Radiographers on machines called Linear Accelerators. Both male and female staff will treat you. We are a teaching hospital and have student radiographers on placement in radiotherapy, who are supervised by trained staff.

Consent forms

Before you undergo this procedure you will be required to sign a consent form which indicates that your doctor has explained the treatment procedure and any possible side effects to you.

Pacemakers

If you have a pacemaker please mention this to both your doctor and also the radiographers, before your first treatment.



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Pregnancy

If you are, or become pregnant at any time before or during your treatment, it is important to inform a member of staff as soon as possible. There is a significant risk to an unborn baby from radiotherapy.

For advice on contraception please speak to your consultant or GP.

Chemotherapy

Sometimes chemotherapy is given alongside your course of radiotherapy. This may start on the same day as your first radiotherapy treatment. You will be given specific written information and be consented separately for this.

What is treatment planning?

Usually a period of planning or preparation is required before your treatment can start.

This may involve an initial visit and then a gap of two to three weeks before your treatment starts, during which time doctors, physics staff and radiographers are preparing your treatment.

You will be given an appointment to attend the department's CT scanner to have your treatment planned. These are specialised CT scans, which are used to define the exact area to be treated and not for diagnosis.

Contrast

A contrast medium may be given to help the radiographers, doctors and physics team to see organs more clearly on the CT scan. This will be injected into a vein. You will be told if you need contrast and given information about it. If you have had contrast before and had any kind of reaction to it, please let your doctor or the radiographers know. This is only required for treatment planning and not whilst you are on daily radiotherapy.

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Planning CT scanner

You will be required to remove your clothing over your chest for your planning visit and subsequent treatment. Women might like to wear a small crop top which can then be pulled down when required. Please ask if you are unsure.

You will be carefully positioned by the radiographers for your scan and you will need to lie in the same position for your daily radiotherapy treatments.

You will be alone in the room during the scan, but the radiographers will be watching you at all times. The staff will need to put some pen marks and markers on your skin to help plan your treatment. You can wash off the pen marks after this visit and the radiographers will remove the markers before you leave. After the scan, the radiographers will put small permanent marks on your skin (a tattoo), using ink and a needle. These marks are to show exactly where to position you for your treatment.

How is the treatment given?

The radiographers will deliver the treatment as prescribed by your consultant. Your treatment is given with you lying in the same position as you were in when you had your CT planning scan. The bed is then raised so it is closer to the machine. The radiographers will dim the lights and use laser lights to line up your tattoos. During treatment you need to remain as still as possible and breathe normally. The radiographers leave the room whilst the machine is switched on but watch you all the time on a monitor. The treatment machine will move around you during the treatment but nothing will touch you.

Every patient's treatment is individual and specifically planned. Your radiotherapy doctor will discuss with you the total number of treatments that you need and how often you will need to attend the department.

Once the machine has switched off there is no radiation present, you will not be radioactive and are safe to be near children and pregnant women.

Side effects of radiotherapy

Treatment is painless but can cause some side effects. Treatment affects people in different ways and it can be difficult to predict which side effects will affect you and how severe they will be. Most side effects will last 2-3 weeks after radiotherapy has finished. The full benefit of the treatment is not usually reached until some weeks after the last treatment session. Side effects can be thought of as early (acute) and late (chronic) effects.

Early side effects

These occur during your treatment and for a short while afterwards.

Tiredness: If you feel tired try to rest at regular intervals. Research has found that gentle exercise such as a short daily walk may help the symptoms of tiredness and fatigue. There is patient information available about exercise, please ask, or visit the Macmillan Cancer Support website (details at the end of this booklet).

Difficulty swallowing and indigestion: You may find that food becomes difficult to swallow and your oesophagus (food pipe) becomes sore and painful. If this does happen you may find softer foods are easier to eat such as scrambled eggs, soups and stews. You may find it useful to avoid hot or spicy foods and alcohol (particularly spirits). You can be referred to the oncology Dietitian if desired. You may find you need some soluble pain relief medication if it is severe. Antacids (indigestion / heartburn remedies) may also help soothe the area.

Loss of appetite: Some people find that radiotherapy treatment may change their sense of taste and that they lose their appetite during treatment. Eating little and often can help. Food supplements are available through your GP.

Coughing and breathlessness: You may develop a cough and possibly experience some sputum which may change in colour or contain some blood. You may also feel more breathless. Do not be alarmed. The

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radiographers will advise you how best to cope with these symptoms. A tickly cough may be relieved with frequent sips of fluid especially at night. Sometimes codeine linctus can help. Continuing to smoke may make your symptoms worse.

Aches and pains: You may have aches and feel some discomfort in your chest area. Soluble painkillers can help to make you feel more comfortable. Your radiotherapy doctor or radiographer will be able to give you more advice.

Hair loss: You will only lose hair in the area being treated, e.g. Chest hair. This hair loss can be temporary however in some cases this may be permanent. Your consultant or a member of the team will be able to discuss this with you.

Effects on the skin

The effects of radiotherapy on the skin are usually minimal for this type of treatment. However, radiotherapy may cause a skin reaction similar to exposure to the sun in the area treated towards the end of treatment and during the first one or two weeks after treatment has finished.

We advise that you:

- Wash treated area daily with your usual soap or shower gel and pat your skin dry with a soft towel.
- Apply your usual skin moisturiser on the treatment area two or three times a day. Gently smooth it onto your skin until it is absorbed. Do not apply just before your treatment.
- If you need to, ask your GP to prescribe a suitable skin moisturiser, otherwise discuss this with your treatment radiographers at the start of your radiotherapy. They may be able to give you a sample moisturiser to try.
- Continue to use deodorants if desired, unless they are found to irritate the skin or the skin is broken.

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- Wear loose-fitting clothing next to the skin (cotton is a good natural fibre).
- Avoid any perfumes, aftershaves, make-up, hair dye or other creams in the treated area.
- Avoid the use of sun lamps, spray tans or skin colouring lotions.
- Avoid using hot water bottles or ice packs in the treatment area.
- Keep the treated area out of the sun during treatment and care should be taken in the future by using a high factor sun cream – factor 30 or above.
- Avoid shaving in the area being treated (if you have to shave then use an electric razor for dry shaving only. When the skin becomes visibly red, stop shaving). No wet shaving, hair removal creams, lasers or wax should be used.
- Avoid using sticky tape in the treatment area such as Elastoplast or Micropore.
- Drink plenty of fluids.

Swimming

You may continue to swim if your skin is not blistered or peeling, providing that you wash the treatment area before and afterwards and apply moisturiser. Care should be taken as chlorinated water can have a drying effect on the skin. Do not swim if you have an infection or your skin is irritated.

Late side effects

Long term side effects can occur many months to years after you have completed your treatment. These side effects are hard to predict and if they occur can be permanent. We plan the treatment to avoid the areas around the tumour as much as possible in order to reduce these effects.

Breathlessness

Radiation can cause inflammation (radiation pneumonitis) 6-12 weeks after finishing treatment. This can cause shortness of breath, fever and cough. It

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can be mistaken for a chest infection but does not resolve after a course of antibiotics. It can be treated with steroids to reduce the inflammation. This is rare, but do contact your Lung Specialist Nurse if you have these symptoms.

Scarring (fibrosis) of the lung can occur after 6 months. This scarring is permanent and can cause a small portion of the lung to collapse.

Please discuss this with your Specialist Lung Nurse who can advise you on techniques to help make breathing easier. You may need to see your GP for antibiotics or other drug treatment to help.

Damage to the bones

Radiotherapy can make your bones more fragile in areas that are treated, such as the ribs, and can lead to osteoporosis.

Narrowing of your food pipe (oesophagus)

Rarely, narrowing of the food pipe can occur which can cause difficulty swallowing. The stricture can usually be relieved by a small operation to stretch the narrowing and allow food to pass through easily again.

Heart damage

Occasionally, radiotherapy to the chest can 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 investigation and treatment.

Spinal cord damage

This is extremely rare but radiotherapy near the spinal cord carries a risk of nerve damage.

Brachial Plexopathy: For tumours close to the top of the lung there is a very small chance of damage to the nerves in the upper arm. This could result in weakness or numbness to part of the arm.

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The risk of both spinal cord damage and brachial plexopathy is very small as great care is taken to avoid or minimise dose to these structures.

Second malignancy

There is a very small risk of developing a second cancer in the area treated beyond 10 years following treatment.

Please discuss any new symptoms that you experience after your treatment, with your consultant in the follow up clinic.

If you are concerned about the late effects of radiotherapy treatment, or would like more information, please speak to your Consultant, your Clinical Nurse Specialist or the Macmillan Radiotherapy Specialist on 024 7696 7290.

Treatment reviews

At some point during your treatment you will be booked in for a 'treatment review'. This review can be with a therapy radiographer, or a consultant, or another member of the team. The aim of the review is to discuss any side effects that you may be experiencing as a result of your treatment, and any side effects that may occur as the treatment continues.

It is not usually possible to give you any information on how effective the treatment has been so far at these review sessions for two reasons:

- Firstly, although we take pictures of the treatment area during your radiotherapy, they are to check the position of the treatment field and are not detailed enough to show us how well the treatment is working
- Secondly, there is a delay in the way that radiotherapy works, so the effects of treatment can't be assessed until a number of weeks, or months, after the treatment has finished.

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After treatment

The early side effects from the treatment will continue for several weeks after the treatment course has been completed.

After finishing treatment, you will receive an appointment to see your consultant between six and eight weeks later, if you haven't received this within three weeks of completing treatment, please telephone radiotherapy reception on 024 7696 7272.

If you have any problems concerning your radiotherapy treatment you can contact the Macmillan Radiotherapy Specialist on 024 7696 7290.

Where is the Arden Centre?

The Arden Centre is situated in the west wing of University Hospital Coventry. Please ask or visit the University Hospital web site for up to date maps and directions: www.uhcw.nhs.uk

How shall I travel?

By car

You can drive whilst having radiotherapy treatment unless you have been advised not to for another reason.

Sat Nav postcode: CV2 2DX

At busy times it can be very difficult to park so please allow extra time. There are several visitor car parks across the site and there are drop-off points near the main entrance and the Women's and Children's entrance which allow for 10 minutes of free parking. Disabled car parking facilities are located near the main entrance. Charges apply in all car parks and Automatic Number Plate Recognition (ANPR) is live across all visitor car parks, this means that our car parks no longer issue tickets at barriers and instead read your number plate as you enter. Payment is then required at one of the payment machines before exiting the car park and can be made

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using cash, card or contactless. Payment can also be made by telephone or online before midnight, see the trust website for details.

However, you are entitled to free parking whilst on radiotherapy treatment, you will need to give your registration number to the Arden Centre receptionist on arrival, if you don't know your registration number we suggest you make a note of it or take a photo of the number plate. Please note that free parking does not include clinic appointments, complementary therapy and counselling appointments, all of which must be paid for.

Public transport

Many bus routes include the hospital with buses driving onto the site, stopping close to the main entrance. **For more information about bus services to University Hospital call the traveline on: 0870 608 2608 or visit www.networkwestmidlands.co.uk .**

Hospital transport

Hospital transport is available where there is a medical need, not for social or financial reasons.

If you receive Disability Living Allowance Mobility Component or have a vehicle under the mobility scheme you may not be entitled to access hospital transport.

If you need hospital transport and feel that you are eligible you will need to book it yourself, giving 48 hours notice. You will need to telephone:-

West Midlands Ambulance Service

01926 310312 (for bookings only)

01926 488410 (for queries on day of travel only)

Leicestershire Ambulance Service / Arriva / Ambuline

0845 2669662

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Northamptonshire Ambulance / NSL

0843 2086888

Worcestershire Acute Trust Transport Service

0121 307 9116 (for bookings)

01926 310311 (for queries on day of travel)

In most cases you will not be able to bring anyone with you. Whilst your transport will be booked to get you to the hospital for your appointment time this cannot be guaranteed but you will be treated as soon as possible after you arrive. Due to the demand on the hospital transport service patients will often be waiting at the Arden Centre to be taken home for some considerable time. We advise that, where possible, patients make their own travel arrangements. If you have to rely on the hospital transport service, please ensure that you bring food, drinks and any medication that you may need for the day with you. There is a refreshment kiosk where you can buy snacks and drinks which is open from 10am-4pm.

Transport Schemes

There are volunteer transport schemes operating in some areas. These schemes will charge a mileage rate which varies. For more information please ask to speak to the Macmillan Radiotherapy Specialist.

Prescriptions

All cancer patients are entitled to free prescriptions. If you haven't already got an exemption card please ask a member of staff for an application form.

Appointments

The department is usually open from 9.00am – 5.00pm Monday to Friday and is closed at weekends and on public holidays.

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Radiotherapy treatment machines are very complex; they are maintained by a team of in house physicists and technicians. Delays in treatment can occur due to machine breakdowns and servicing.

Breaks in treatment due to public holidays and machine maintenance do not affect most people's treatment. However, some patients may be asked to come in for treatment on these days, when a different treatment machine could be used.

It is not advisable for you to miss any other appointments, but if it is unavoidable please talk to the radiographers who are treating you.

The radiographers arrange treatment appointment times. Every effort will be made to give you times that you prefer, but with a heavy workload this cannot be guaranteed.

It is important that we have a contact telephone number for you as we often have to telephone patients at short notice, about appointments or with other information.

If your telephone is set to bar incoming calls from withheld numbers, please give us an alternative telephone number.

Counselling

There is a counselling service available at the Arden Centre, for more information speak to your specialist nurse, doctor or radiographer, or telephone 024 7696 7478.

Complementary therapy

Aromatherapy, reiki, massage, Indian head massage and reflexology are available to oncology patients Therapists are volunteers and provide their services to patients free of charge. Yoga sessions are available once a month.

The counselling and complementary services are by appointment only, please ask a member of staff, or telephone 024 7696 7290.

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Smoking

It is strongly recommended that you **stop smoking** completely whilst undergoing radiotherapy. Smoking can make treatment side effects more severe, the treatment harder to tolerate and less effective.

For help to stop smoking call the National smoke free Helpline on 0300 123 1044 or contact the hospital's stop smoking service on 024 7696 4760

Information and Support

Macmillan Cancer Information Centre 024 7696 6052

We can offer free support, practical advice and information to anyone affected by cancer. No appointments are required and an answering machine facility is available. Open Monday to Friday 9.00am to 4.00pm, the Centre is located on the ground floor in the main entrance.

You may find these information booklets useful:

Understanding Radiotherapy

Understanding Lung Cancer

Coping with Fatigue

Coping with Breathlessness

Useful telephone numbers:

Arden Cancer Centre:

Monday to Friday 9.00am – 5.00pm (024 7696 7272)

Oncology Ward 35: 024 7696 5525 or 024 7696 5528 or 024 7696 5531
(24 hour emergency advice only please)

Radiotherapy Information and advice: 024 7696 7290

Macmillan Radiotherapy Specialists Monday – Friday 9.00am – 5.00pm

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Planning Radiographers: 024 7696 7454

NHS advice - use the 111 service

Macmillan Cancer Support: 0808 808 00 00 www.macmillan.org.uk

Cancer Research UK: 0808 800 4040 www.cancerresearchuk.org

British Lung Foundation: 03000 030 555 www.blf.org.uk

The Roy Castle Lung Cancer Foundation: 0333 323 7200

www.roycastle.org

Patient Satisfaction

We hope that you have found this booklet helpful. We welcome your comments on the care that you experience and the service that we offer within the Arden Cancer Centre.

We ask that specific complaints be addressed to a member of staff so that, in line with University Hospitals Coventry and Warwickshire NHS Trust's complaints policy, they can be dealt with quickly and efficiently.

If you need help, information or advice, either during, or at any time after your course of treatment has finished, please telephone: 024 7696 7290, Monday to Friday 9.30am to 4.30pm and speak to the Macmillan Radiotherapy Specialist.

Written by Julia Biggs & Alison Crichton

(Macmillan Radiotherapy Specialists)

With help and advice from the medical staff of the Arden Cancer Centre,
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The Trust has access to interpreting and translation services. If you need this information in another language or format, we will do our best to meet your needs. Please contact 024 7696 7272.

This Trust operates a non-smoking policy on the hospital site. Please respect other patients and staff and refrain from smoking whilst visiting the hospital. Thank you.

For help to stop smoking call the National smoke free Helpline on 0300 123 1044 or contact the hospital's stop smoking service 02476 964760

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