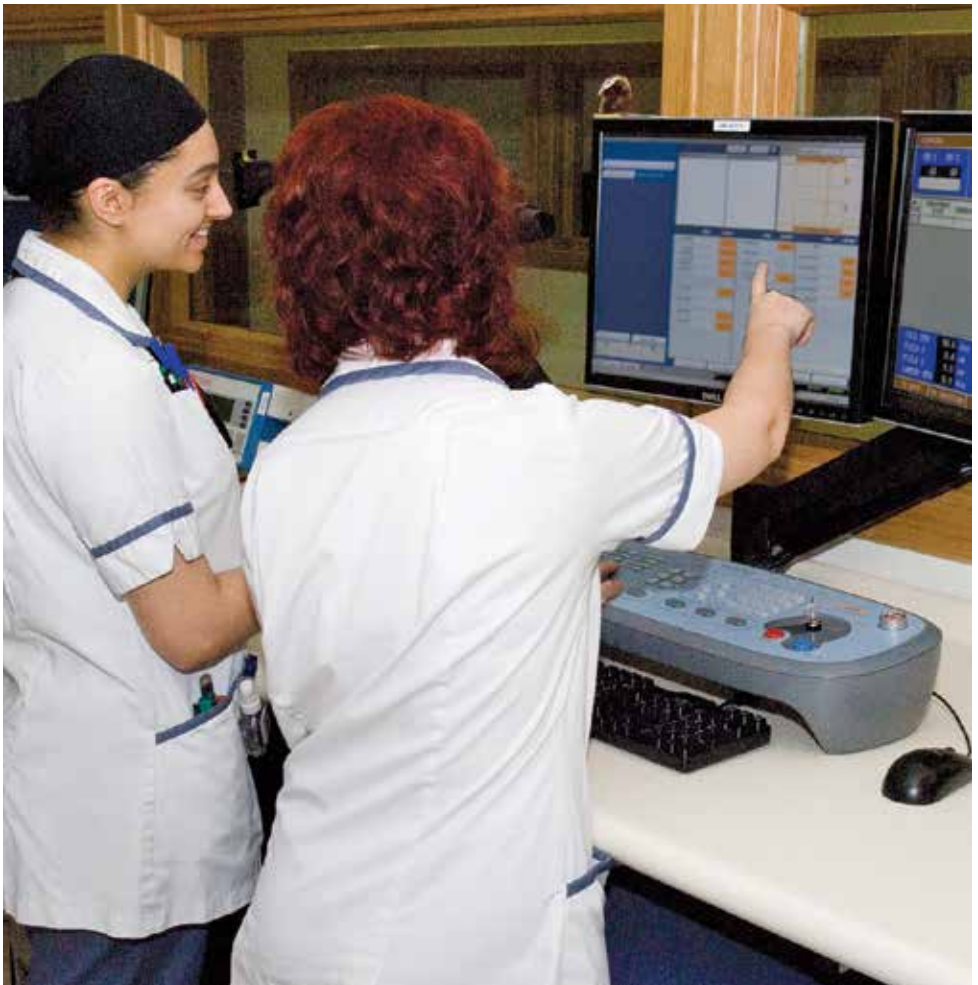


The Radiotherapy Department  
**Radiotherapy**  
Information for patients



# Mission Statement

## **Our commitment to you**

During your time with us we aim to provide the highest standards of care and support you in your decisions regarding your treatment. We will respect your dignity, individuality and personal preferences.



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# What is radiotherapy (RT)?

Radiotherapy is the treatment of cancer and a few other non malignant (non cancerous) conditions using high energy X-rays. Radiotherapy may be given on its own, or it may be used alongside other treatments such as surgery, chemotherapy, hormone therapy or brachytherapy. Radiotherapy treatment for most cancers is given by machines called **Linear Accelerators (Linacs)**. Everyone's treatment is different and planned individually.

## How does it work?

Radiotherapy causes changes in cells (both normal and cancer cells). Cancer cells are more sensitive to radiotherapy than normal cells and so more of them are damaged beyond repair. The normal cells are better able to repair themselves and so the damage is mainly temporary. This is the reason why radiotherapy has some side effects.

## How often is it given?

This treatment is usually given as a series of outpatient appointments (sometimes known as fractions), usually over five days a week. Radiotherapy treatment can be anything from one treatment to a course lasting seven weeks or more. **It is very important to follow your treatment plan and avoid any unnecessary gaps during a course of radiotherapy.**

# Patient Pathway

This pathway illustrates your progression through the radiotherapy department.

## Before Treatment



- Who will I meet
- Consent
- How to find us

## Arrival



- Reception

## Treatment Planning



- Radiotherapy planning
- CT
- Skin markings/Tattoos
- Mould Room

## Treatment



- Radiotherapy treatment
- Side effects
- Reviews

## After Treatment



- After treatment
- FAQs
- Support

# Before radiotherapy

## **Who will I meet during my RT journey?**

Your care will be managed by therapy radiographers, doctors and nurses. You will meet both male and female health care professionals during the course of your treatment. If you have any concerns about this, please talk to one of the radiographers. We try to be sensitive to your needs so please do not hesitate to discuss things with the team caring for you.

## **Therapy radiographer (*also known as radiation therapists*)**

Therapy radiographers are specially trained in radiotherapy and patient care during treatment. They play a vital role in the treatment of cancer.

They will provide you with support, advice and information throughout the course of your treatment. They also work with other healthcare professionals such as oncologists, nurses and dietitians.

The Churchill Hospital is a teaching hospital so radiotherapy students or trainee assistant practitioners work in the department alongside the radiographers, under supervision at all times.

## **Clinical oncologist**

The specialist doctor who is in charge of your radiotherapy is called a consultant clinical oncologist. They supervise a team of doctors, which include specialist registrars and are responsible for prescribing and monitoring your course of treatment.

You may see the oncologist or specialist registrar before, during or after your course of treatment, so that the side effects can be monitored.

## **Radiotherapy nurse practitioners**

Radiotherapy nurse practitioners work with the radiographers and clinical oncologists to provide care, advice, support and information during and after your treatment. They frequently carry out treatment reviews to assess side effects and any problems or concerns.



## **Consent**

Before you have any treatment, your doctor will discuss with you what the radiotherapy will involve, the benefits and the risks. You will be asked to sign a consent form, which is a written record that you have agreed to the radiotherapy and that you give your permission to proceed with **planning** and **treatment**.

It is important that you understand the information you have been given, and that you ask questions if you don't understand or if you want more information. You may withdraw your consent at any time.

## **Research**

World class research is carried out across the Oxford University Hospital NHS Trust. During your visit you might be approached about clinical trials and research studies. If you would like further information, please ask your healthcare professional when you come to your appointment. Participation in research is **voluntary**. If you would like more information about radiotherapy research being conducted at our hospital, please ask your clinical oncologist.

## **Pregnancy**

If you are female and aged between 12 to 55 years old you will need to sign a form to confirm that there is no possibility that you could be pregnant. It is very important that you are not and do not become pregnant at any time throughout a course of radiotherapy. You must take precautions to prevent pregnancy during treatment as radiotherapy can cause a miscarriage or abnormalities. If you are medically able to become pregnant we will need you to carry out a pregnancy test during your treatment planning appointment. If you think you may be pregnant at any time during your treatment it is extremely important that you tell a member of staff immediately.

## **Pacemaker**

If you have a pacemaker you should let the clinical oncologist and/or radiographers know. This does not stop you from having treatment but is helpful information.



# Arrival

## Reception

When you first arrive at the Radiotherapy Department, you will need to check in at reception. A radiographer will come and explain what will happen during your appointment. **If you are not feeling well please let reception know.**

## Appointment list

You will receive an appointment list, showing your radiotherapy appointments and any review appointments with your doctor or nurse.

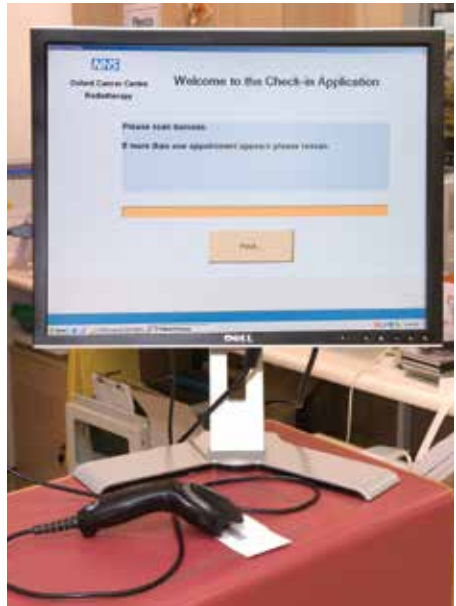
**Make sure you book in using your barcode for each treatment and each review appointment separately.**

## Car parking permits

Car parking permits can be arranged by radiotherapy reception. Please see a member of staff at your first appointment.

## Hospital transport

Hospital transport is for people who are medically unfit and have no other way of getting to their appointments. It can increase your travel time and time within the department. If you require transport please ask a member of staff.



*Checking in system with barcode scanner*

# Treatment planning

## Planning

When you have radiotherapy, your treatment needs to be planned carefully.

This planning:

- identifies the exact part of your body to be treated
- helps the doctors and radiographers work out the best position for you to lie in for your treatment
- makes sure your treatment will be really accurate
- is important to plan your radiotherapy specifically for you.

This may involve a few visits to the Radiotherapy Department before your treatment starts. You may have treatment on the same day as the planning, but usually it is necessary to wait while the doctors, radiographers finalise your treatment plan.

*This is our CT scanner. We may use this to plan your treatment.*



## **Planning CT**

Radiotherapy planning usually takes place in a **CT scanner**, which use X-rays to gain information about the area to be treated.

The purpose of planning is to work out an accurate and reproducible position for you to be in during your treatment. It is important that you are comfortable and can keep still for the required length of time. Please inform the radiographers if you have any problems or concerns.

This position will be used for every subsequent treatment you have, so we will record all information required to reproduce it. This may include taking photographs and measurements so we can get you in exactly the same position for your treatment.

During the **CT scan** the couch moves in and out of the 'polo hole' shaped part of the machine for a few minutes. Nothing will touch or hurt you, and you will not feel anything. Planning normally takes about 15 to 45 minutes.

If there are any instructions for eating and drinking before you come for the CT scan, you will be told about them when you are given your appointment. Otherwise, please continue to eat and drink as normal.

## **Skin markings/tattoos**

You may need to have permanent tattoo marks on your skin, each the size of a full stop. These marks are used to place you in the correct position for treatment at each visit.

# Reproducing your position

## **Moulds/shells/mask**

If you are to have radiotherapy to your head, neck or a limb you may have an extra step in your planning process – the making of a **shell (or cast)**. It is important to keep the part of your body being treated as still as possible during treatment.

This **shell** or **cast** is made of a perforated sheet of thermoplastic, so you can breathe easily if it covers your face. This special kind of plastic is heated in warm water so that it becomes soft and pliable. A radiographer will put the plastic on to your body, when it is soft and warm, so that it moulds to your body exactly. It feels a little like having a warm flannel put onto your skin.

Once the plastic has moulded and become hard (which takes a few minutes) the radiographer will take it off. The shell is then ready to be used. Some of the marks to guide the radiographers can be drawn on the shell, not on your skin.

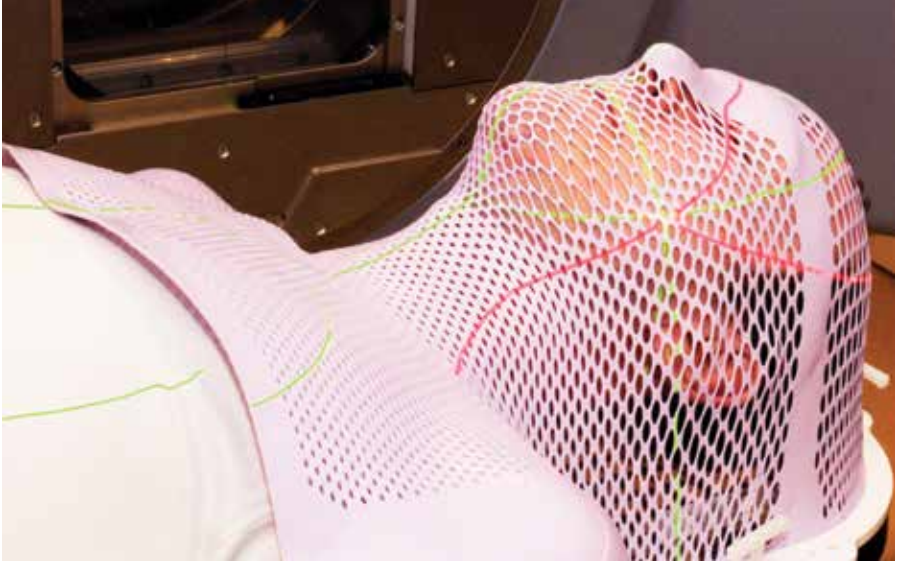
It may feel snug, but it can help to remember that you will only have the shell on for a short period of time.

## **Sponges**

We may use sponges during the treatment to help keep you in the same position (please see picture on the next page).

## Reproducing your position

This is a mask. We will tell you if you need to wear one of these during your treatment.



These are examples of sponges that are used in the department.



# Treatment

Treatment times will vary, depending on the area being treated and your specific treatment position. Most of the time will be spent putting you into the correct position.

1. You will be asked to remove clothing that covers the area being treated.
2. You will lie on a couch in the same position recorded during your treatment planning. Using the tattoos/marks, the radiographers will move the couch and the treatment machine into position. It may come very close to you but it will not touch you.
3. When you are in the correct position the radiographers will leave the room. You just have to lie still and breathe normally. The radiographers will be watching you on cameras from outside. If you want them to come back in just raise your hand.
4. The radiographers will start your treatment. Each treatment lasts a few minutes and the machine will make a buzzing noise when it is switched on. You will not see or feel anything during the treatment.

*This is a radiographer with one of our treatment machines.*



# Common side effects of radiotherapy

As radiotherapy affects people in different ways it is difficult to predict exactly how you will react to your treatment.

The radiographers will ask you how you are each day. It is important that you tell them if you are experiencing side effects so that they can monitor your progress throughout your treatment.

If you feel unwell, let the radiographers know as soon as you arrive, so that they can arrange for a health professional to see you. If you feel unable to travel, contact the Radiotherapy Department to seek advice.

## **Tiredness**

You may feel tired during your radiotherapy treatment or after treatment has finished. This can often be made worse by having to travel to the hospital each day. Listen to your body and if necessary allow yourself extra time to rest, perhaps by taking a nap or going to bed earlier than normal. Increasing your fluid intake (drinking more water) may help to reduce feelings of fatigue. It is beneficial to be well hydrated during your radiotherapy treatment. When possible accept any offers of help. Tiredness can be a problem for a while after treatment.


## Skin reaction

Some people develop a skin reaction due to radiotherapy. The area may become more dry or sensitive.

The amount of reaction depends on the area being treated and the individual's skin. **Some people have no skin problems at all.**

Below are some instructions on how to treat your skin over the treatment area:

- Wash with warm water, that is not too hot or too cold.
- We recommend that you use Simple® soap or aqueous cream to wash with.
- Dry the area with a soft towel; do not rub, pat dry gently.
- Gently apply a moisturising cream to the area, 2 to 3 times a day. You can use any cream that is sodium lauryl sulphate free (sometimes also called sodium dodecyl sulphate, lauryl sodium sulphate, sodium n-dodecyl sulphate, lauryl sulphate sodium salt). You can ask the radiographers or nurses to check your cream if you are unsure.

**DO NOT USE:**  **These products increase the chances of your skin getting sore.**  
*If you require specific advice about a particular product ask the nurses or radiographers.*

- talcum powder
- dressings

### Refrain from:

- wet shaving
- waxing, cream or laser hair removal
- swimming in a chlorinated pool
- exposing your skin to extremes of temperature e.g. hot water bottles or ice packs, sunlight.

**These restrictions apply to the treatment area only. If you are unsure about the exact area that is being treated, please ask your radiographer to show you.**

**After treatment finishes, continue your skin care regime until your skin has recovered.**



## **Avoiding the sun**

Your skin in the treatment area will be very sensitive and needs protecting from the sun or cold winds. For example, if you are having radiotherapy to your head or neck, try wearing a hat or cotton scarf. While you are having treatment, it is important not to use any sun protection products over the treated area. The chemicals in these products can irritate your skin.

Once your skin has recovered, post-treatment, the **treated area will always be more sensitive to the sun**. Therefore it is best to use a high factor sun cream (factor 30+) or sun block in the future. It is very important to continue to cover the treated area if you go out in the sunshine, as it will be more prone to sunburn.

Wear clothes made of cotton or natural fibres, which have a closer weave and offer more protection against the sun. Remember that you can burn even through clothing if you are out in the hot sun for a long time.

## **Clothing**

During treatment you may prefer to wear loose fitting clothing, preferably in natural fibres which are more comfortable and less irritating to the skin.

Collars, straps or underwired bras can cause irritation if they rub against your skin.

## **Hair loss**

With radiotherapy you lose hair within the treatment area, but it can also happen where the radiation beam leaves the body. Ask your radiographer to show you exactly where your hair may fall out.

Hair often grows back after treatment finishes, although this depends on the dose of radiotherapy you have. Your oncologist can explain if your hair loss is likely to be permanent and advise you about wigs, which can be partly funded by the NHS.

## **Nutrition**

It is important to maintain a healthy diet and drink plenty of fluids whilst on treatment. You may find that your eating habits change. It may be easier to have small snacks throughout the day rather than big meals. If you are having problems with eating it is important to tell the radiographer or your nurse practitioner, who can arrange for you to see a dietitian if necessary.

## **Smoking**

Stopping smoking during and after radiotherapy is very worthwhile. Research has shown that smoking may make the radiotherapy treatment less effective, as well as increasing the side effects.

Stopping smoking or cutting down at such a stressful time can be very difficult. If you want help or advice you can talk to your nurse practitioner, who will be able to suggest ways of stopping smoking. Organisations such as QUIT also offer advice and valuable support. Please see the end of this booklet for further information.

## **Sexual effects**

Depending on your treatment area, radiotherapy can sometimes cause physical changes that may affect your sex life. If you are having problems it may help to talk these over with your partner and your medical team. If you would prefer to talk in confidence to one of the Macmillan cancer support specialists please call 0808 808 00 00.

## **Further effects**

These will depend upon the area that you are having treated. Your doctor will have discussed these with you during your consent appointment. For further information, please see the site specific leaflet which relates to the area you are having treated.

## **Contraception**

It is important to use effective contraception throughout your radiotherapy treatment. Radiotherapy could cause a miscarriage or cause a child to be born with abnormalities.

## **Feminine hygiene**

Female patients having pelvic Radiotherapy should **not** use tampons, as the skin in this area will be sensitive. It is advisable to avoid any unnecessary friction.

## **Treatment reviews**

Depending on your treatment you may see the doctor or nurse practitioner at intervals throughout treatment. These appointments will be on your appointment list.

Your reviews will allow you to discuss any problems from your radiotherapy (physical or emotional). It is about your individual needs, an opportunity for you to get information and support and a referral to other services if needed.

# After treatment

The effects of radiotherapy usually peak up to two weeks after treatment has finished. Do not be alarmed if your skin continues to get sore and you continue to feel tired. The tiredness can last for some months after treatment has finished. Continue with your care regime (i.e. skin care) as you were during your treatment for two to four weeks or until your side effects subside. You will be given a specific advice leaflet called "End of Treatment". This will include information about your follow-up appointment.

Please contact your oncologist, radiotherapy nurse practitioner or your family doctor if you have any further queries about side effects after treatment. Please see the end of this booklet for contact details.

# Frequently asked questions ?

## **Will I be radioactive?**

No – your body does not store up or give off any radiation with this treatment.

## **Can I be around children and pregnant women?**

Yes, this type of radiotherapy does not cause you to become radioactive and you pose no risk of radiation exposure to people near you.

## **How long does treatment take?**

Treatment only takes a few minutes, however getting the position correct to ensure accuracy can take time.

## **What are the lasers for?**

The lasers help us to align you into the correct position, **they are not dangerous.**

## **Will treatment hurt?**

Radiotherapy is completely painless, just like having an X-ray taken.

## **What if I need you during the treatment?**

We will watch you on cameras when outside the room, so we can see you at all times. If you need us raise your hand and we can come in straight away.

## **Why is the bed uncomfortable?**

A hard bed is necessary to make sure you stay in the same position at every visit. A softer bed would make it hard to ensure you are in the same place.

## **What if I need to cough?**

We need you to stay still whilst we align you and when we treat you. If you need to cough, cough into the air and **do not bring your hand to your mouth.** If we think you have changed position we will come and check.

**Could I lose my hair?**

Only in the area we are treating. For example, if the area being treated is your arm, you can expect to lose the hair on that part of your arm

**Will I be sick?**

Sickness and nausea depend on the area being treated. If this is a potential side effect of treatment you will be informed beforehand. We will give you medication to help prevent you from feeling sick.

**Can I work whilst on treatment?**

This depends on how you feel and the side effects of the treatment. Some people continue to work throughout treatment whilst others find this difficult. Listen to your body and rest when needed.

**Can I go swimming?**

You are advised to avoid swimming during treatment as the chlorine in the water could aggravate your skin reaction. Once the skin reaction has settled down after treatment you can begin swimming again.

**Can I drive to my radiotherapy treatment?**

If you feel up to driving, it is fine to do so. If you should not be driving, your doctor will discuss this with you.

# Further support for you

## **Maggie's Centre**

Maggie's provide information and support to address every aspect of living with cancer – from the practicalities of claiming benefits, to the physical and emotional effects that people and their families or friends might be experiencing.

Maggie's is open Monday to Friday, 9am to 5pm

Tel: **01865 751 882**

Website: [www.maggiescentres.org](http://www.maggiescentres.org)

## **Smoking Advice Services**

### **Smokefree – Oxfordshire Smoking Advice Service**

Helpline: 01865 904 625

Website: [www.smokefreeoxfordshire.nhs.uk](http://www.smokefreeoxfordshire.nhs.uk)

### **Smokefree – Wiltshire Stop Smoking Service**

Helpline: 0300 003 4562

Website: <http://www.wiltshirestopsmoking.co.uk/>

### **Buckinghamshire NHS Smokefree Support Service**

Helpline: 0845 2707 222

Website: [www.smokescape.org](http://www.smokescape.org)

### **SmokeFreeLife Berkshire**

Helpline: 0800 622 6360 or text QUIT to 66777

Website: [www.smokefreelifeberkshire.com](http://www.smokefreelifeberkshire.com)

**All GP surgeries and pharmacies can also provide smoking cessation advice.**

# Supporting links

## **Maggie's CancerLinks**

Your gateway to national high quality cancer support and information.

Website: [www.cancerlinks.maggiescentres.org/](http://www.cancerlinks.maggiescentres.org/)

## **Macmillan Cancer Support**

Macmillan Cancer Support is a UK charity supporting people with cancer and their families with specialist information, treatment and care.

Tel: 0800 808 00 00

Website: [www.macmillan.org.uk](http://www.macmillan.org.uk)

## **Cancer Research UK**

Cancer Research UK provides patients and health professionals with information on lifestyle, cancer and current research.

Tel: 0808 800 4040

Website: [www.cancerresearchuk.org/](http://www.cancerresearchuk.org/)



# Your personal notes

## How to contact us

Please contact radiotherapy reception on **01865 235 465** or radiotherapy nurse practitioners **01865 235 473** during normal working hours

or

Oxford triage assessment team on **01865 572 192** out of hours.

## How to find us

Radiotherapy Department  
Churchill Hospital  
Old Road  
Headington  
Oxford  
OX3 7LE





If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

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