

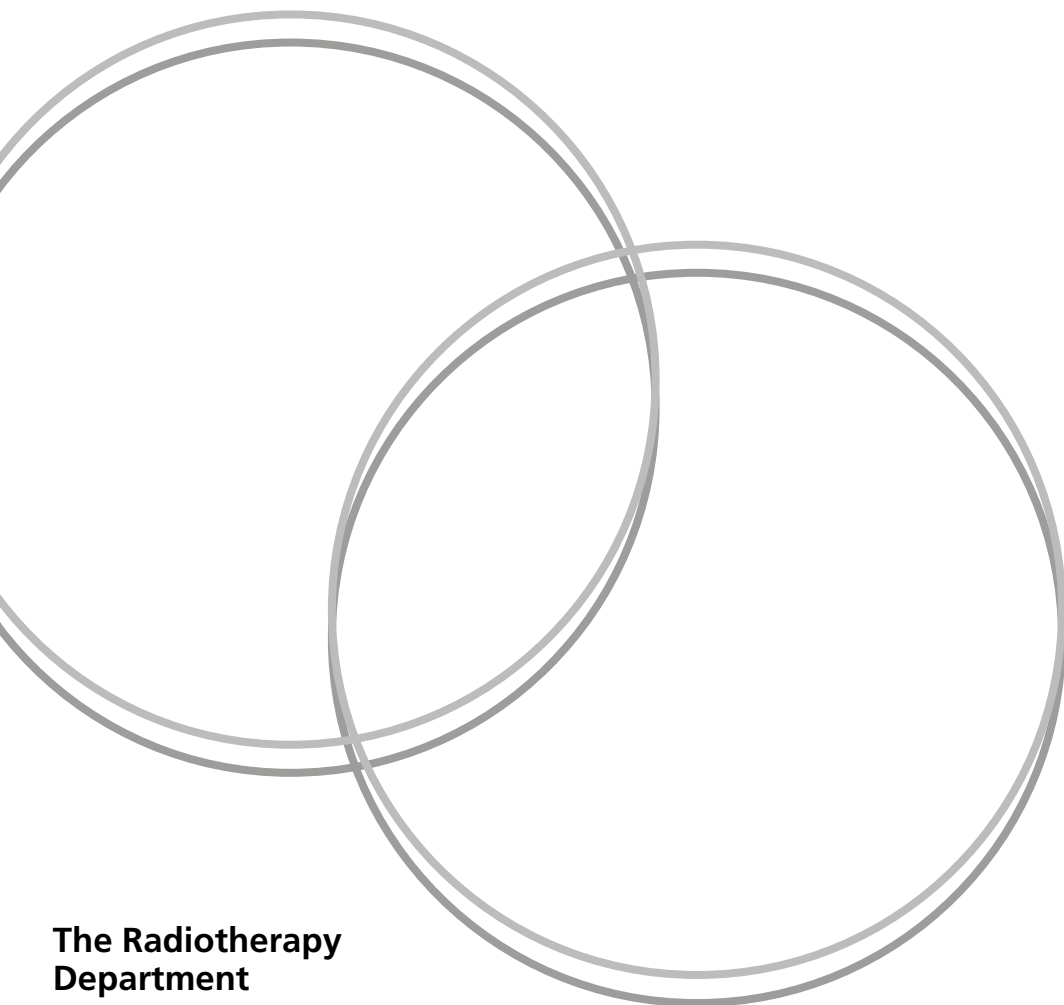


Oxford University Hospitals

NHS Foundation Trust

# Radiotherapy

**General information  
for patients**



**The Radiotherapy  
Department**

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## 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.

## HOW TO CONTACT US

Please contact **OXFORD** radiotherapy reception on **01865 235 465** or radiotherapy review team **01865 235 472** during normal working hours

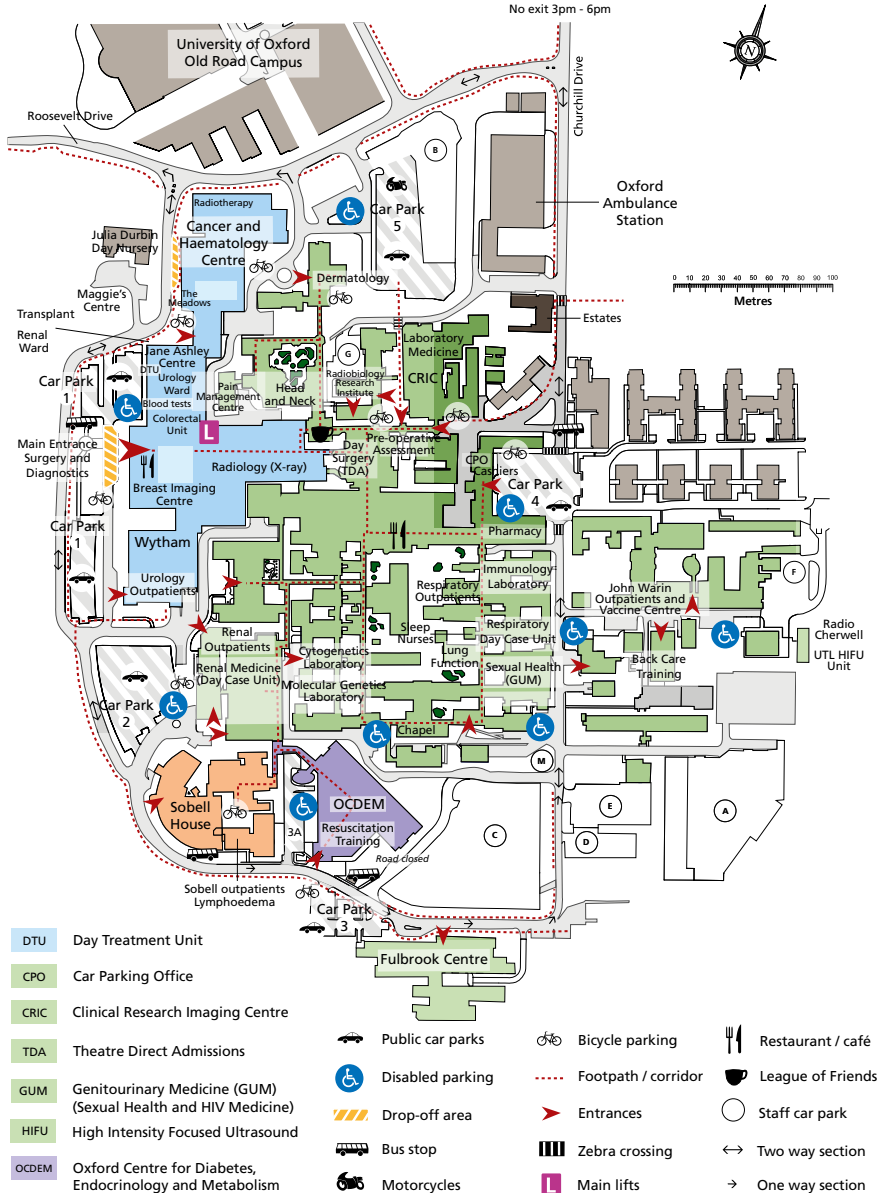
or

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

Please contact **SWINDON** radiotherapy reception on **01865 220 680**

# HOW TO FIND US

Radiotherapy Department, Churchill Hospital  
 Old Road, Headington, Oxford OX3 7LE



## WHAT IS RADIOTHERAPY?

Radiotherapy is the treatment of cancer and a few non-malignant (non-cancerous) conditions using high energy X-rays (radiation). Radiotherapy may be given on its own, or it may be used alongside other treatments such as surgery, chemotherapy, immunotherapy or hormone therapy. Radiotherapy treatment for most cancers is given by machines called **Linear Accelerators (Linacs)**. Everyone's treatment is different and planned individually as described in this leaflet. If you require information about another form of radiotherapy treatment, for example brachytherapy, let your treatment team know as additional leaflets are available.

### How does it work?

Radiotherapy works by destroying cancer cells in the area that's being treated, by damaging the DNA. Normal cells can also be damaged by radiotherapy, which may cause side effects. Cancer cells cannot repair themselves after radiotherapy, but normal cells are better at repairing.

### How often is it given?

Treatment is typically given as a course of outpatient appointments (known as fractions). It is usually given five days a week but can be fewer. Radiotherapy treatment can also 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 as this may reduce its effectiveness.**

### Who will I meet during my radiotherapy?

Your care will be managed by doctors, therapeutic radiographers and nurses. We have a diverse team in the department and you will meet both male and female health care professionals during the preparation and delivery of your treatment. If you have any concerns about this, please talk to one of the radiographers.

# PATIENT PATHWAY

This pathway illustrates your progression through radiotherapy treatment.

## Before Treatment begins



- Who will I meet
- Consent
- Research
- Pregnancy/Contraception
- Pacemaker
- Bringing someone with you

## Arrival



- Reception
- Waiting areas

## Treatment Planning



- CT
- Tattoos/skin markings
- Mask/shell

## Treatment



- Treatment
- How to look after yourself during treatment
- FAQs
- Side effects during treatment
- Reviews

## After Treatment



- Side effects after treatment
- Follow up
- Further support

# BEFORE RADIOTHERAPY BEGINS

## **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 a clinical oncologist or specialist registrar before, during or after your course of treatment, so that the side effects and effectiveness of treatment can be monitored.

## **Therapeutic radiographer**

Therapeutic radiographers are specifically trained in radiotherapy and patient care and they plan and deliver your treatment. They will also provide you with support, advice and information throughout the course of your treatment.

The Churchill Hospital is a teaching hospital and we therefore have student therapeutic radiographers working in the department. They are under supervision at all times.

## **Radiotherapy specialist nurse**

Radiotherapy specialist nurses provide care, advice, support and information during and after your treatment. They carry out reviews during treatment (alongside therapeutic radiographers) to assess side effects and any problems or concerns.

## **Radiotherapy assistants**

Radiotherapy assistants work alongside the therapeutic radiographers and nurses to help ensure patients receive timely treatment and care.

Our dietitians and speech and language therapist also review patients during treatment if required.

## Research

World class research is carried out across our 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.

## Consent

Before you have any treatment, your doctor will discuss with you your treatment options, what the radiotherapy will involve and the benefits and the risks. Radiotherapy is carefully planned and personalised to you to minimise the risk of side effects occurring.

You will be asked to sign a consent form, recording that you have agreed to the radiotherapy and that you give your permission to proceed with **planning** and **treatment**. The medical X-ray imaging you will require as part of your radiotherapy treatment will give you a small additional amount of radiation on top of that you get naturally from background radiation. This will be in addition to the radiation received during your radiotherapy treatment as part of your cancer treatment. All radiation carries a small risk of harm. However, the benefits of the radiotherapy outweigh the risk involved.

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.

It may be helpful to have someone with you at times when you are receiving a lot of information.

You will be given information leaflets about the area of the body you are to have treated. Please visit our hospital website ([www.ouh.nhs.uk](http://www.ouh.nhs.uk)) and search for 'radiotherapy', where you will find other helpful leaflets, information about the department and radiotherapy videos.

## **Pregnancy**

OUH is an inclusive organisation which recognises and accepts the diverse community that it is part of. This has resulted in the organisation reviewing many of its processes and procedures to make sure they are in line with this, with the safety and protection of individuals being at the centre of any changes or adjustments. We are now asking pregnancy status questions of all patients, regardless of their gender. If there is a possibility of you being pregnant, you will be asked to take a urine pregnancy test. We ask you to use effective contraception and to inform a member of the team straightaway if you think you could be pregnant at any point during your radiotherapy.

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

## **Pacemaker/Cardiac Implantable Electronic Device (CIED)**

If you have a pacemaker or CIED you must let the clinical oncologist and/or therapeutic radiographers know. This does not stop you from having treatment but is important information as your device will need to be monitored during treatment.

## **Bringing someone with you**

It may be reassuring and helpful to know that you are welcome to bring someone with you to your appointments. The only stages in the process where this is not possible is in the CT scanner or treatment room.



# APPOINTMENTS

## Reception

When you first arrive at the radiotherapy department reception you will be greeted by a radiotherapy assistant and will need to check in. A therapeutic radiographer will come and explain what will happen during your appointment. **If you are not feeling well please let our reception staff know.**

## Appointment list

You will receive an appointment list with your radiotherapy treatment and review appointments. If you are delayed on your journey, please do not worry and let us know, if you can. We will see you as soon as we are able.

## Booking in

Make sure you book in using your barcode. If you have more than one appointment please book in for each separately. The radiotherapy assistants will show you how to do this.

## Waiting areas

At your first appointment please wait in the large waiting area at the front of the department in reception. You will be shown to our smaller waiting areas once you have started treatment.

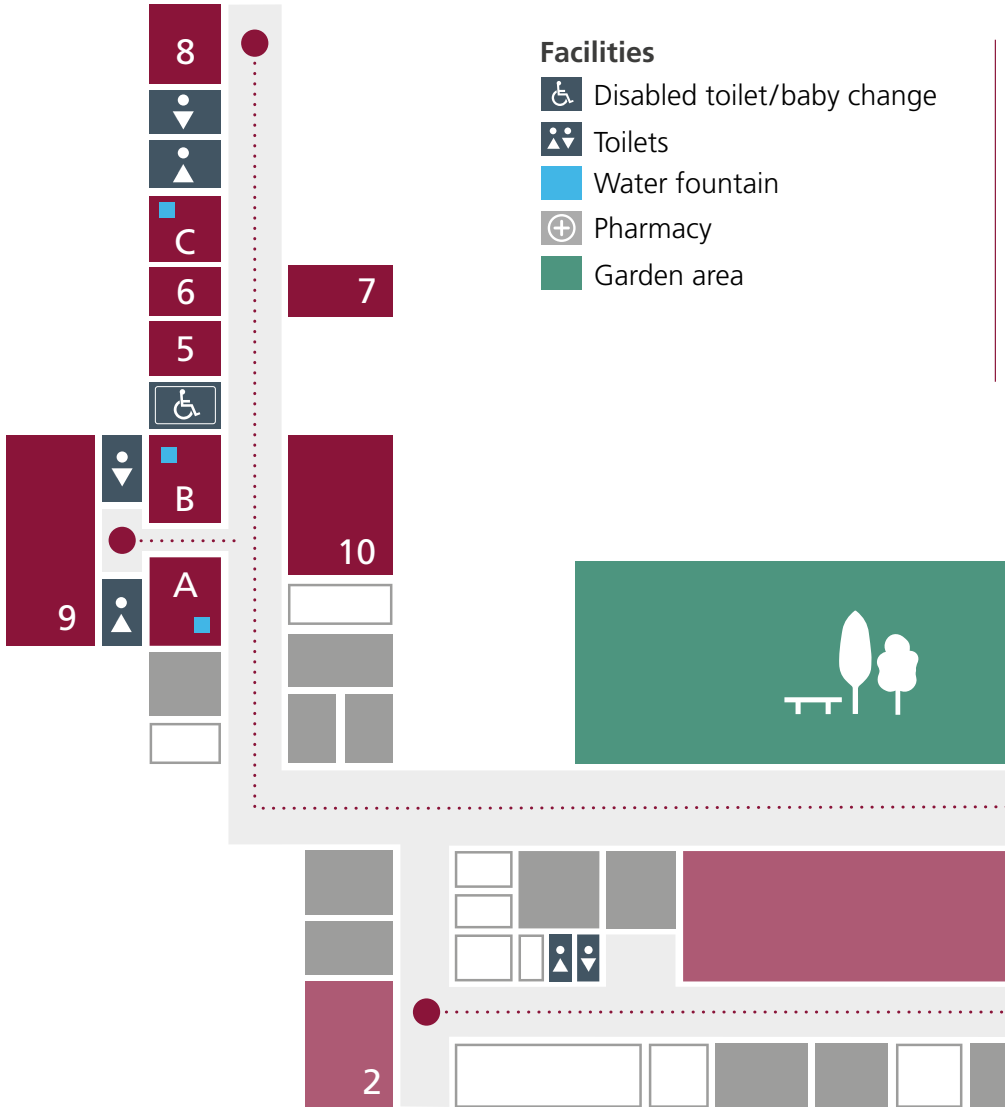
Although we try to keep to appointment times, occasionally you may have to wait.

We have a traffic light display in the department indicating any treatment delays. We do have some reading materials and activities in the waiting areas, but you may also like to bring something to occupy yourself.



*Photo of the check in system*

# DEPARTMENT LAYOUT



**1** Reception and main waiting area

**Pre-treatment**

**2** Mould room

**3** CT scanners

**Treatment**

**A** Waiting area A

**B** Waiting area B

**Treatment**

**C** Waiting area C

**5** Quiet waiting room

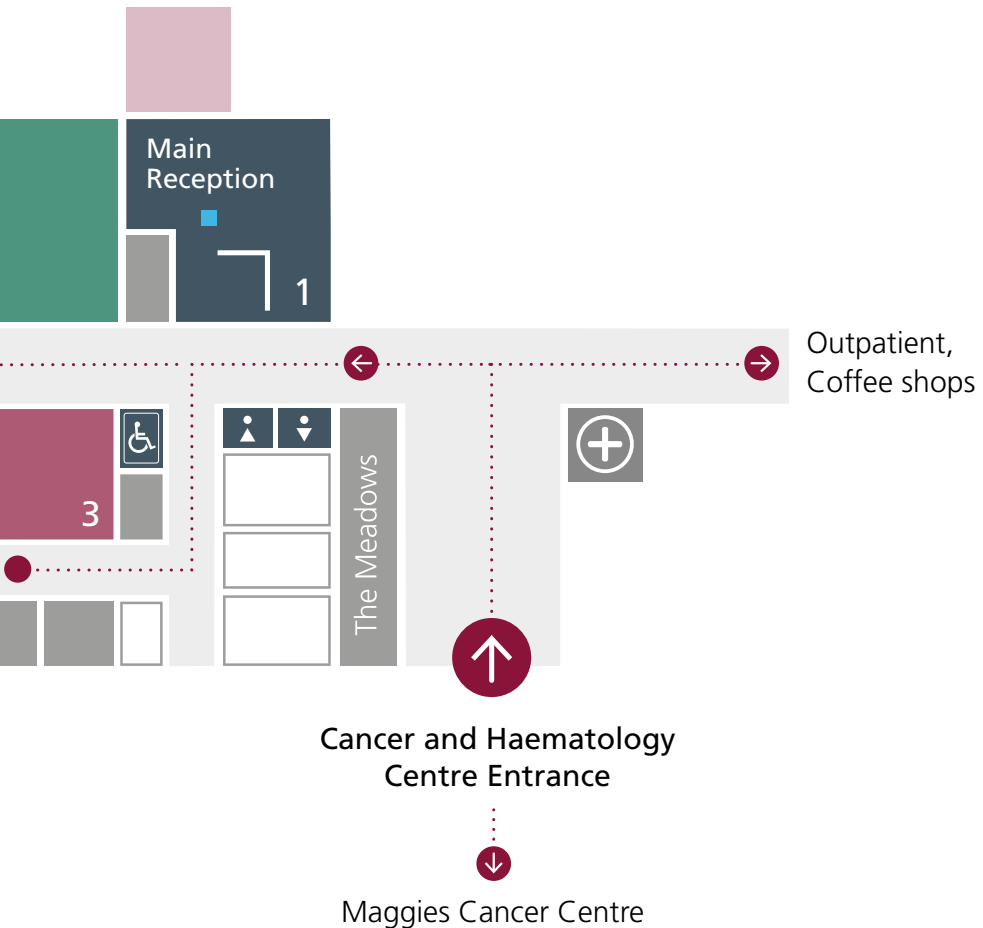
**6** Office

**7** Office

**8** V1-2 treatment rooms

**9** V3-6 treatment rooms

**10** Brachytherapy



## TREATMENT PLANNING

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

This planning:

- helps us to work out the best position for you to lie in for your treatment
- helps us to target the area of your body to be treated aiming to reduce the risk of side effects

This may involve a few visits to the radiotherapy department before your treatment starts. A radiotherapy plan is created to reduce the risks associated with the radiation used, by carefully maximising the dose delivered to the treatment area whilst minimising the dose to nearby organs. You may require a visit to the mould room first if your treatment requires a mask (or shell) to be made. If you are not having treatment on the same day as planning, your treatment will usually start 1-2 weeks later.

*This is our CT scanner. This can be used to plan your treatment.*



## **CT**

Radiotherapy planning usually takes place in a **CT scanner**, which uses X-rays (radiation) to gain information and create images of the area of your body to be treated. These images are used to plan your treatment only and are not for diagnosis. The radiation dose is always kept as low as possible but varies according to the type of treatment you are having. Your clinical oncologist or therapeutic radiographer will discuss any concerns you may have.

You will lie on the scanner couch in the same position as for your treatment. You will need to remove clothing that covers the area to be treated. We work hard to maintain your privacy and dignity at all times. It is important that you are comfortable and can keep still. Please inform the therapeutic radiographers if you have any problems or concerns.

We may take photographs and measurements so that you can be put in the same position for your treatment. We will ask for your permission first.

During the CT scan the couch moves through the machine but nothing will touch or hurt you, and you will not feel anything. Planning normally takes between 15 to 45 minutes but you should expect to be in the department for 2-3 hours for this appointment.

During the scan a dye may be injected into your body or you may be asked to drink a dye. 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**

The therapeutic radiographers may need to draw on your skin each day with a skin marker pen. These will wash away. You may also need to have permanent tattoo marks made on your skin, each the size of a full stop. The therapeutic radiographers will ask your permission. These marks are used to help place you in the correct position for treatment at each visit.

## **Making a mask or shell**

If you are to have radiotherapy to your head, neck or a limb, you may have a mask (or shell) made first, in the mould room. This will help to keep the part of your body being treated as still as possible during planning and treatment.

The mask is made of a perforated sheet of thermoplastic, so you can breathe easily if it covers your face. A therapeutic radiographer will put the warmed, pliable plastic onto the part of your body having treatment, so that it moulds to you exactly.

Once it has become hard (which takes a few minutes) it will be removed. The mask is then ready to be used. Some of the marks to guide the therapeutic radiographers can be drawn on the shell, not on your skin.

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

To ensure accuracy, a mask must fit consistently well. If possible, please keep your hair in the same style throughout the course of treatment. Having no facial hair ensures that a mask fits well. **Please come for your mould room and pre-treatment appointment cleanly shaven.**

## Reproducing your position

A mask.



These are examples of sponges that are used to help make your treatment position more comfortable.

Foot rest



Knee rest

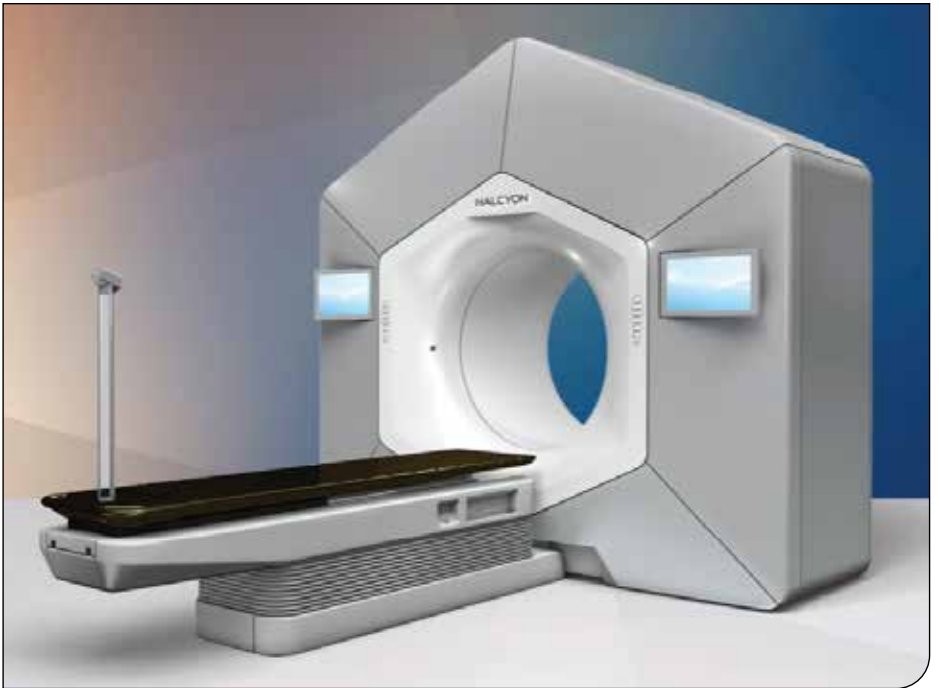


## TREATMENT

The time it takes to deliver your treatment may vary, depending on the area being treated, the images taken to check treatment is accurate and your specific treatment position. Most of the time will be spent ensuring you are in the correct position.

1. You will be asked to remove any clothing that covers the area being treated.
2. We will ask you to lie on a hard treatment couch in the same position recorded during your planning appointment. Using the tattoos/marks, the therapeutic radiographers will move the couch and the treatment machine into position. It may come close to you but it will not touch you.
3. When you are in the correct position the therapeutic radiographers will leave the room. You will hear a beeping sound for several seconds, this is normal. The radiographers will be watching you on cameras from outside the room. If you want them to come back in at any point during your treatment, please call out or raise your hand.
4. Once the therapeutic radiographers have taken the images that are required to check you are in the correct position, they will start your treatment. Each treatment lasts a few minutes and the machine will make mechanical noises when it is switched on and as it moves around you. You will not see or feel anything during the treatment.
5. When your treatment has been given, you must remain still until the therapeutic radiographers have come back into the room. They will lower the couch so that you can safely sit up and step back onto the floor.





## SIDE EFFECTS OF RADIOTHERAPY

Radiotherapy affects people in different ways and so it is difficult to predict exactly how you will react to your treatment. Short term side effects occur during treatment and for a few weeks afterwards. Long term side effects are more difficult to predict and can occur many months or years after radiotherapy has finished. Your clinical oncologist will discuss the risks of these happening with you before you consent to treatment. Leaflets for the part of the body you are having treated will be given to you before treatment which describe all the known side effects for this area.

During your treatment the therapeutic radiographers will ask you how you are each day. It is important that you tell them if you are experiencing any side effects so that they can monitor your progress throughout your treatment and refer you to the treatment review team for advice and support if needed.

### **Treatment reviews**

Depending on your treatment, you may see the doctor or treatment review team (radiotherapy specialist nurses and therapeutic radiographers) at intervals throughout treatment. These appointments will appear separately on your appointment list. Please check in for both your treatment and review appointments when you arrive. Please use the barcode scanner for each separate appointment.

Your treatment review will allow you to discuss any concerns about your radiotherapy (physical or emotional). This is an opportunity to discuss your individual needs.

On arrival if you feel unwell, please let the reception staff know, so that they can arrange for a health professional to see you. If you are unwell at home or feel unable to travel, contact the radiotherapy department to seek advice.

## COMMON SIDE EFFECTS

### **Tiredness (Fatigue)**

You may feel tired during your radiotherapy treatment or after treatment has finished. This can often be affected by having to travel to the hospital each day. Listen to your body and if necessary allow yourself time to rest. When possible accept any offers of help.

It is beneficial to be well hydrated during your radiotherapy treatment. Increasing your fluid intake (e.g. drinking more water) may help to reduce feelings of tiredness. You should aim to drink between 1 1/2 to 2 litres of fluid a day. It is possible that these feelings may peak a few weeks after treatment and continue for a while afterwards. Many people find that gentle exercise helps.

### **Skin reaction**

You will be given a leaflet on how to care for your skin during radiotherapy.

## **OTHER SIDE EFFECTS**

### **Hair loss**

With radiotherapy you may lose hair in the treatment area. Ask your therapeutic radiographer to show you where you may lose hair.

Often hair grows back after treatment finishes but sometimes it may not. Your clinical oncologist will explain if your hair loss is likely to be permanent.

### **Nausea and sickness**

If your treatment is likely to make you feel sick, you will be informed of this beforehand as it depends on the area being treated. We will give you medication to help prevent you from feeling sick if needed.

### **Eating problems**

Although it is important to eat well and drink plenty of fluids whilst on treatment, you may find that your eating habits change. In order to maintain your weight it may be easier to have small snacks throughout the day, rather than large meals. If you are having problems eating or are losing weight please ask your therapeutic radiographer to arrange for you to see a dietitian.

### **Speech and swallowing**

Our speech and language therapist can see those patients who have problems with speech and swallowing during treatment.

### **Sexual effects**

Depending on your treatment area, radiotherapy can sometimes cause physical changes that may affect your sex life. If you have concerns it may help to talk these over with your partner and/or your medical team. An appointment at our Sexual Care after Radiotherapy Clinic can provide a safe space to talk about your concerns.

Telephone **01865 227213** or  
email **orh-tr.sexualcareafterrrt@nhs.net**

# LOOKING AFTER YOURSELF DURING RADIOTHERAPY

Adopting a healthy lifestyle during and after radiotherapy can help to minimise side effects and reduce health complications in the future. As part of a healthy lifestyle, we suggest a balanced diet, moderate exercise, reduced alcohol consumption and stopping smoking. We might ask you some questions during radiotherapy reviews about your lifestyle to help manage your symptoms and improve your overall health. We can provide information and support if you wish to make changes to your weight, exercise levels, alcohol consumption and smoking habits.

## **Nutrition**

It is important to have a healthy balanced diet and drink plenty of fluids whilst on treatment. Eating well generally means having a diet rich in wholegrains, vegetables, fruit and pulses, with lean meat, fish and lower fat dairy. It also means limiting foods and drinks that are high in added sugar, salt or saturated fat such as butter, cream and cheese. This includes highly processed foods and drinks such as biscuits, crisps, fast foods, ice cream and sugar-sweetened soft drinks.

## **Smoking**

Research has shown that smoking may make radiotherapy treatment less effective, as well as increasing the side effects.

If you want help or advice you can talk to the treatment review team, who will be able to suggest ways of stopping smoking.

## **FREQUENTLY ASKED QUESTIONS**

### **How do I travel to the Radiotherapy Department?**

You can find up to date information about buses on the OUH website: **[www.ouh.nhs](http://www.ouh.nhs)** search '**how to get to the Churchill hospital**'.

If driving to Oxford please use the Park and Ride and buses to the hospital, if you can.

You may be eligible to claim help with transport costs. Information on the Healthcare Travel Costs Scheme is available on the OUH website or from the radiotherapy reception staff.

Macmillan benefits advisors in the radiotherapy department can let you know if you are eligible for the NHS low income scheme or a Macmillan grant for travel costs.

Local voluntary drivers can be found by asking at your GP practice or searching your local authority website for services.

### **Non-emergency 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 our reception staff.

### **Can I get a car parking permit?**

If you drive to the hospital, car parking permits can be arranged by radiotherapy reception. Please ask a member of staff at your first appointment. Parking spaces are limited so please allow plenty of time to park.

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

Your doctor will discuss with you if you should not drive to your appointments.

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

The average appointment slot is approximately 15 minutes, however, the time taken to deliver the treatment is only a few minutes. Most of the time is spent getting you into the correct position for treatment.

### **What are the laser lights for?**

The lasers are lights that help us to position you correctly, they are not harmful.

### **Will treatment hurt?**

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

### **Why is the couch uncomfortable?**

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

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

If you need to cough, cough into the air and do not bring your hand to your mouth. If you have changed position we will come and correct this.

### **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.

### **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 during treatment?**

Yes, you may go swimming if your skin is not blistered or peeling. It is best to shower immediately afterwards to wash off the chlorine and then apply moisturiser. Please stop swimming if it irritates your skin.

### **How do I know my treatment is working?**

Radiotherapy is used as a treatment with a variety of different aims. For many patients, the treatment is aimed at contributing to a long term cure, often alongside surgery and or chemotherapy, so it may take many years to know if the treatment has been effective in preventing relapse of the disease. If treatment is given in order to improve symptoms, a benefit may be felt relatively quickly, within days or weeks of starting.

After treatment you will meet with your clinical oncologist in the outpatient clinic to discuss plans for monitoring and follow up.



## AFTER TREATMENT

### **Side effects**

Effects of radiotherapy usually peak up to two weeks after treatment has finished and then should start to improve. You should continue to take care of yourself by following the guidance given during treatment.

Radiotherapy can cause long-term permanent side effects which are described in the leaflets given to you before treatment. The number of people affected is small, but they can occur many months or years after radiotherapy has finished and are difficult to predict. You should always report them to your doctor for advice, assessment and treatment.

Rarely, radiotherapy can cause a second cancer to develop. The benefit of having treatment is greater than the very small risk of this happening. Please discuss any concerns with your clinical oncologist.

### **Follow up**

Near the end of treatment you will be given a leaflet called "End of Treatment". This includes information about how to continue looking after yourself.

Your follow up appointment will be to see your clinical oncologist to discuss your recovery, plans for future monitoring and any further treatment. Please prepare any questions you may have for this appointment.

You should have received a date for your follow-up appointment before your treatment finishes. Please discuss this with your therapeutic radiographer if you are unsure. Your GP will also be sent details about the treatment you have received. To ensure this is sent correctly, please make sure you let us know of any changes to your GP details.

Please contact your clinical oncologist, radiotherapy review team or your GP if you have any further concerns about side effects after treatment.

## **FURTHER SUPPORT FOR YOU**

### **Radiotherapy Department**

Website: [www.ouh.nhs.uk](http://www.ouh.nhs.uk) – search for radiotherapy

### **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.maggies.org](http://www.maggies.org)

### **Maggie's CancerLinks**

Your gateway to national high quality cancer support and information.

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

### **Macmillan Benefits Advice**

Our advisors have an office in the main waiting room of the radiotherapy department. They can help you to identify and claim benefits and other forms of support, such as one off grants.

Tel: **01865 227 083**

### **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/)

## **Here for Health**

A support service which provides information and advice on healthy living available via telephone and video.

Tel: **01865 221 429**

Monday to Friday 9am-5pm.

Email: [hereforhealth@ouh.nhs.uk](mailto:hereforhealth@ouh.nhs.uk)

## **Advice Services Stopping Smoking**

Use helpline numbers or search the Internet for the services in your county as below:

### **Stop For Me: Oxon**

Helpline: **0800 122 3790**

### **Smokefree – Wiltshire**

Helpline: **0300 003 4566**

Website: [www.wiltshire.gov.uk/smokefree](http://www.wiltshire.gov.uk/smokefree)

### **Buckinghamshire Live Well Stay Well**

Website: [www.livewellstaywellbucks.co.uk/Service/29/stop-smoking](http://www.livewellstaywellbucks.co.uk/Service/29/stop-smoking)

### **SmokeFreeLife Berkshire**

Helpline: **0800 622 6360** or text QUIT to **66777**

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

**There are many more online cancer information websites available. We suggest you use those which have been recommended to you by a health care professional.**

## Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Authors: Oxford Radiotherapy Team  
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Oxford University Hospitals NHS Foundation Trust  
[www.ouh.nhs.uk/information](http://www.ouh.nhs.uk/information)



*Making a difference across our hospitals*

charity@ouh.nhs.uk | 01865 743 444 | hospitalcharity.co.uk

OXFORD HOSPITALS CHARITY (REGISTERED CHARITY NUMBER 1175809)

