



Radiotherapy to the prostate



Radiotherapy to the prostate

You and your clinical oncologist have decided that a course of radiotherapy would be the appropriate way of treating your cancer.

When recommending radiotherapy, your doctor will have taken into account the risks and benefits of the treatment. Although there will be side effects, it is felt that the advantages for you would outweigh the disadvantages.

Your doctor will discuss the risks and benefits of having a course of radiotherapy and you will need to sign a consent form agreeing to have treatment. You will also be asked to confirm this consent verbally on the day of your planning scan.

The risks of receiving radiotherapy to the prostate are outlined in this leaflet.

You may decide that you do not want to have radiotherapy – this is an option for you to consider. In this instance, you might want to talk again with your doctor and let them know what you have decided.

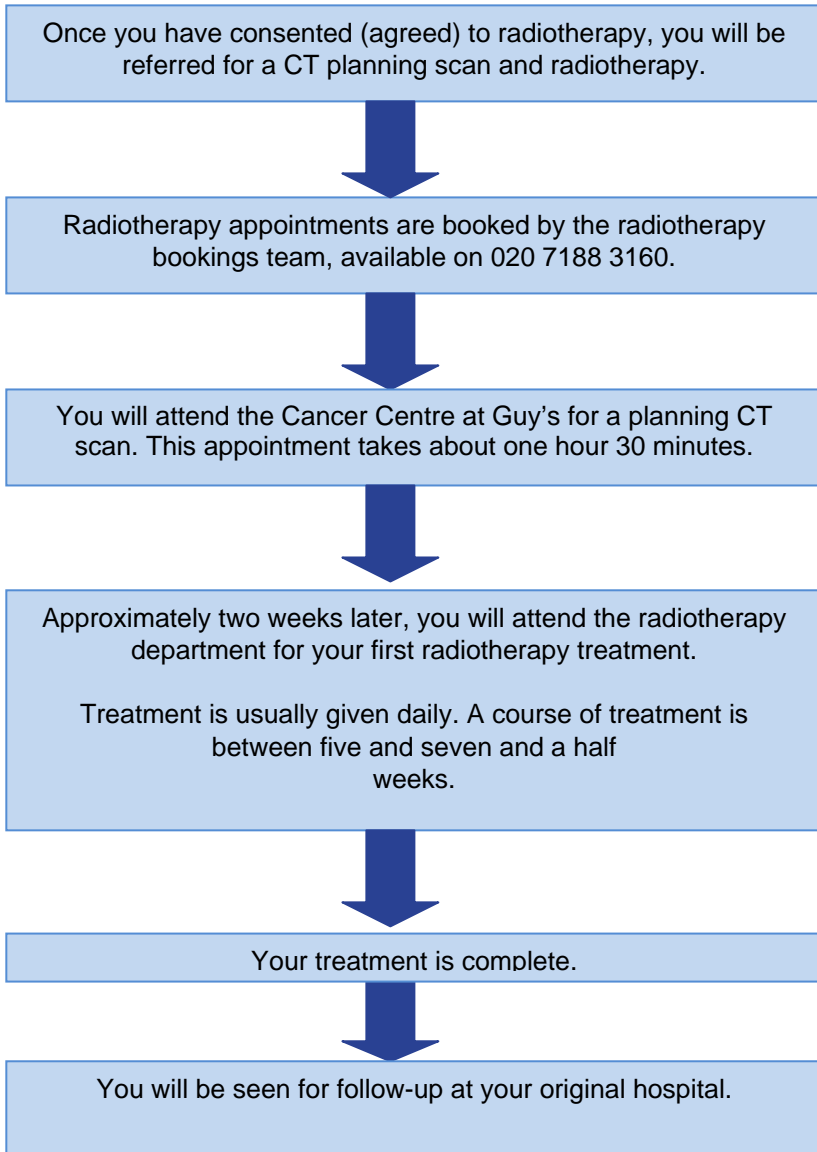
You can request a second opinion on your diagnosis or treatment at any time during your consultation or treatment process. Please speak to your clinical oncologist or GP for information on how to do this.

Your key worker.....

Contact number:.....

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Patient pathway



What is radiotherapy?

Radiotherapy uses radiation (high energy x-rays) to treat cancer. The radiation only damages the cells within the treatment area, killing the cancer cells but allowing normal healthy cells to recover. Any side effects of radiotherapy are usually isolated to the area being treated.

Treatment is given over a prescribed number of days/weeks so that only small doses (fractions) of radiation are given. Your clinical oncologist will prescribe the amount of radiation needed and will tell you how many treatments you will have and over how many weeks. Treatment is given on weekdays (Monday to Friday) with a break at the weekend.

It is important that you attend all of your treatment appointments.

What happens before my radiotherapy starts?

Pacemakers / ICDs – If you have a pacemaker or ICD, please tell your doctor as soon as possible. Although your device is not near the area being treated, you will need to have it checked before your radiotherapy treatment.

Hydration – It is very important that you are well hydrated (drinking lots of fluid) and have a 'comfortably full' bladder for your CT scan and treatment. A comfortably full bladder means your bladder feels full

but that you do not feel that you urgently need to empty it. Therefore we ask that you drink 1½ – 2 litres of fluid per day, especially water or other non-caffeinated drinks. Please reduce your intake of fizzy and alcoholic drinks.

A suggested way to keep hydrated is to drink a glass of water every one to two hours during the day time (more if the weather is hot or if you are exercising). Aim to drink six to eight glasses of water a day.

It is also important when you have your planning CT scan and treatment that you try to empty your bowels daily – being well hydrated will help you to do this.

Following these instructions will help to reduce the side effects of your treatment because less of your bladder and bowel will be in the radiation beam. This will also make sure that your prostate is in the same position each day, ensuring that the treatment is accurate.

How do I prepare for my planning CT scan?

In addition to thinking about keeping yourself well hydrated, we need you to practice filling your bladder and keeping it full. We suggest that you empty your bladder and then drink 350ml (approx two small glasses) of water. Ideally you should be able to hold your bladder for 45 minutes. Please do this everyday from the day you consent to treatment.

What if I am unable to hold the water in my bladder?

If you are unable to hold your bladder with 350ml of fluid, try reducing the amount to 300ml and holding for 45 minutes. If you still can't hold on, try decreasing the

amount of fluid you drink until you find an amount of fluid that is comfortable for you to hold on to for the full 45 minutes. Aim to increase the volume of water daily until you are comfortable holding 350ml.

What are the side effects of radiotherapy?

Receiving radiotherapy does have side effects. The most common side effects are listed below and are grouped into short-term and long-term effects. Your clinical oncologist will have discussed these effects with you as part of your consent to treatment. You can ask someone in your treatment team at any point if you would like clarification of these side effects.

Whilst we cannot prevent against side effects, we can help you to manage them. Side effects that occur during your radiotherapy are called early (or acute) side effects. They usually begin to occur one to two weeks after your treatment starts. As your treatment progresses, these become more severe and are usually at their worst one to two weeks after your radiotherapy treatment finishes. Then, they gradually start to improve and by three months after the completion of your treatment, most will have resolved or at least improved considerably. Early side effects affect all patients, but the severity varies.

There are also side effects that occur months to years after the treatment has finished – these are called long-term side effects and are consequences of the radiation treatment. You may or may not experience long-term side effects – not everybody does. They may start during treatment and then gradually become worse, or

they may develop slowly over a long period of time. Some may improve slowly, but others may be permanent.

We use the most modern radiotherapy techniques available to reduce the side effects to a minimum. However, some of the side effects described below are unavoidable.

We will support you and help you to manage these side effects, with advice and medications when necessary. Additionally, you will be reviewed by the treatment support radiographers to assess your reactions to treatment.

Possible early side effects:

- **Painful urination:** a burning sensation when passing urine.
- **Tiredness:** a sense of fatigue and lack of energy may occur during radiotherapy but will slowly settle once treatment is completed.
- **Urinary frequency / urgency:** the need to pass urine more often than usual and difficulty holding your urine.
- **Diarrhoea:** stools may become loose and frequent, and you may require medication to control this.
- **Sore rectum:** soreness in the back passage, especially during bowel movement.

Possible late side effects:

- **Impotence:** inability to achieve or sustain an erection, with loss of sexual potency. This occurs in one in two patients but may be helped with medication or mechanical devices in some instances.
- **Minor bowel changes:** bowels may remain loose and you may need to go to the toilet more frequently.

Uncommon late side effects:

Every effort is made to minimise these effects and enhance the benefit from the treatment. All of the side effects below are very rare – your doctor will discuss them with you in detail.

- **Inflammation of the rectum:** occasionally some men pass softer stools more frequently and sometimes with some bleeding. It can be treated with medication or, very rarely, you may require surgery to correct the problem.
- **Urethral narrowing:** when the tube between the bladder and the penis narrows and results in a decrease in urinary flow.
- **Late malignancy:** there is an extremely small chance of developing another cancer near to the treatment area 10 years or more after treatment.

Who will look after me during my treatment?

A number of healthcare professionals will be involved in your treatment and care. Below is a list of all of the doctors, nurses, specialists and departments who will look after you while you are having radiotherapy.

Clinical oncologists are doctors who are trained in the use of radiotherapy and chemotherapy. The consultant clinical oncologist will be in charge of your care. Clinical oncologists are supported by a team of specialist registrars, therapy radiographers, nurses and administrative staff.

Therapy radiographers are specifically trained to plan and deliver the radiotherapy. They provide support and advice on radiotherapy side effects and their management. The radiographers will have day-to-day responsibility for you while you are receiving radiotherapy.

Your **advanced practice radiographer** will provide support and advice on all aspects of your treatment.

Oncology nurses provide support and advice on the side effects of radiotherapy and chemotherapy and their management. Chemotherapy nurses will be involved in delivering chemotherapy treatment if necessary.

The **acute oncology assessment unit** will provide emergency medical care for any side effects of treatment or any problems relating to the cancer itself. This service is available on **020 7188 3754** (9am and

6pm, Monday to Friday). Emergency contact details will be provided for out of hours problems.

Radiotherapy planning

Following your initial outpatient appointment with the doctor, you will be sent a letter asking you to attend the radiotherapy department for a **CT scan**.

Please bring your appointment letter with you to the appointment.

A member of the pre-treatment radiotherapy team will explain what is going to happen, and during this discussion, you will be asked to confirm your name, address and date of birth. **You will be asked for this information before every procedure or treatment undertaken in the department.**

We will then ask you to **re-confirm consent** to make sure you are certain that you would like to go ahead with the proposed treatment.

A member of staff will tell you when to start drinking. You will need you to try to empty your bladder and bowel and they will ask you to drink 350mls of water so that your bladder is full.

You will need an empty bowel and a full bladder for the scan and also for all of your treatments.

Computerised tomography (CT) scan

A computerised tomography (CT) scanner is a special x-ray machine that produces a series of detailed pictures showing the structures of the pelvis.

This scan is for planning your treatment only. The images are sent to a planning computer and used to reconstruct a three dimensional image of your pelvis. The clinical oncologist will then use this image to accurately plan your radiotherapy.

You may eat and drink normally on the day of your scan and throughout your treatment appointments, and there is no harm in you being around other people.

During the CT scan

For the scan you will need to remove all of your clothing below the waist – we will provide a gown for you to wear. Please return the gown to the radiographers after your scan.



CT scanner
Image supplied courtesy
of Siemens.

You will need to lie on the CT table on your back, with your hands on your chest. Your head will be in a head rest and your knees and ankles will be supported in specially-shaped rests. The radiographers will make you as comfortable as possible so that you are able to lie very still.

A radiographer will make some pen marks on your pelvis and place a sticker on it to mark the area that needs to be scanned. This is done so that the mark shows up on your scan. The pen marks and stickers will be removed after the scan is completed.

The CT table will be raised to go through the scanner and the radiographers will then leave the room. They will be watching you at all times through a mirror. The radiographers will start the scan from outside the room. You will feel the bed slowly move in and out of the scanner and hear the machine buzzing. The scan should only take a few minutes.

After the CT scan

Once the scan is completed, the radiographers will come back into the room. The radiographers will take some measurements and make some very small permanent ink marks (tattoos) on your pelvis. These marks help to position you correctly for your future treatments.

The radiographers will help you down from the scanning table and you may then get dressed and leave the department.

Before you leave, you will be given a provisional list of all your radiotherapy appointments – **please bring this list with you to your first treatment appointment.** You will be given a confirmed list of appointments on your first day of radiotherapy treatment, approximately two weeks after your CT scan.

What is a radiotherapy plan?

Your radiotherapy plan is the personalised design of your radiotherapy treatment. It is tailor-made for you and is based on the CT scan that you had. A team of doctors, radiographers and physicists will work together to decide where the treatment needs to be directed, avoiding as much healthy tissue as possible.

What will happen on my first day of treatment?

When you arrive for your appointment, please book in at reception. You will then be directed to the treatment waiting area.

One of the treatment radiographers will discuss your treatment with you and you will be able to ask any questions that you may have.

What will I need to do during my treatment?

You will need to have an empty bowel and a full bladder for your treatment – there are water fountains in the waiting areas of the department if you need them. Having a full bladder and empty bowel helps to move the position of the prostate gland slightly and helps to reduce the side effects of treatment.

Each day, please arrive in the department one hour before your appointment time to drink water to fill your bladder.

Please bring a dressing gown to wear at your treatment appointments. You will be asked to change in a cubicle, and will then be taken into the treatment room where the staff will introduce themselves.

You will be asked to lie on the treatment table, which will be set up with the same equipment as when you had your CT scan. You should try to relax, stay still and breathe normally.

Radiotherapy treatment is given by a machine called a linea accelerator, often referred to as a linac.



Linear accelerator (linac)

Image supplied courtesy of Varian.

Another type of treatment machine in the department is made by a company called TomoTherapy®.

This machine looks like a CT scanner and combines a linear accelerator with a CT scanner.

The lights will be dimmed so that the radiographers can see the room lasers that will help them to position you correctly. You will hear the machine move around you. It will come close to you but will not touch you. You will hear radiographers taking various measurements and feel the bed moving. Once you are in the right position, the radiographers will leave the room.

Once the radiographers have left the room you will hear a buzzing sound. This is the door safety interlock. You will be alone in the room during your treatment but the radiographers will be watching you all the time on closed circuit television (CCTV). If you need assistance at any point, just wave a hand and the radiographers can immediately return to the room.

Digital x-ray images are taken regularly during your treatment to ensure that the treatment is being delivered accurately. There will be a short delay whilst these images are assessed and you may feel the bed move as the radiographers adjust its position from outside of the room. Treatment will then be delivered and the machine will move around you to treat you from different angles.

This whole process will take approximately 15 minutes. Afterwards, the radiographers will return to the room, and help you down from the treatment table. The treatment table will be quite high up, so it is very important that you do not move or attempt to get off the table without assistance. The radiographers will tell you when it is safe to sit up and get off the table.

Treatment review

You will be seen by a member of the treatment support team. These radiographers will support you during your treatment and help you to manage your side effects. You will have separate appointments for this on your appointment list.

Managing the side effects of prostate radiotherapy

Some people have more side effects than others during radiotherapy. You may not experience all of the side effects listed below, but this does not mean the treatment is not working as well. It is important to remember that everyone reacts to treatment differently.

Change in bowel habit

You may find your bowel habit changes and you need to open your bowels more often.

If you develop diarrhoea, you should reduce the roughage in your diet. Cutting out high fibre breakfast cereal, brown bread, fruit juice, leafy green vegetables and fruit can be helpful. The radiographers can give you practical advice on what to eat and what to avoid.

If your diarrhoea continues, ask your radiographers to arrange for a prescription for medication to help control your symptoms.

Try to drink at least two litres (four pints) of fluid a day.

We recommend the following fluids:

- water
- squash
- juice
- milk
- herbal teas (caffeine-free).

Please remember:

If you are **diabetic** you will need to have appropriate drinks without sugar.

If you suffer from **arthritis, heartburn or irritable bowel syndrome**, you need to limit the amount of cranberry juice to two glasses a day.

If you are taking **warfarin**, please ask your doctor, nurse or pharmacist for advice on which drinks are appropriate for you. Some fruit juices (such as cranberry) may interact with warfarin and affect the amount of time it takes for your blood to clot.

Urinary frequency

A common side effect of radiotherapy can be the worsening of any difficulties you may already have in passing urine. As treatment progresses you may find that you have to pass urine more frequently, that you experience increased urgency and that the flow may be reduced. These are normal side effects. However, if you experience stinging or burning when passing urine, please inform your radiographers, as these can be signs of a urinary infection. If there is an infection in your urine, a doctor will prescribe a course of antibiotics for you.

If you are starting to experience urinary problems, try to reduce your intake of the following:

- caffeinated drinks (coffee, tea, cola)
- fizzy drinks
- alcohol
- high energy drinks, such as Redbull.

Try to drink regularly throughout the day (every hour if possible).

General tiredness (fatigue)

As you continue through your treatment, it is likely to make you feel extremely tired. This can be caused by several things:

- **The treatment itself** – your body needs to repair itself, which uses up energy.
- **Any hormone therapy you are having** – this can make you feel very tired.
- **Travelling** – coming to and from the hospital for your appointments, as well as the change in your daily routine and interrupted nights can contribute to your fatigue.

This does not mean you have to put your normal life on hold. Give yourself time to relax – do not try to fight the tiredness. Try to eat a healthy, well balanced diet and drink plenty of fluids. Some studies have shown that taking a 20 minute walk each day can help improve feelings of fatigue.

General advice while having radiotherapy

Washing

It is important to keep the treatment area clean. Shower/bath using lukewarm water and use your usual soap or shower gel. Aqueous cream may be used as a soap substitute but not as a leave on moisturiser. Use a soft towel to gently pat the skin dry – do not rub.

Moisturising

Moisturising in the treatment area will help your skin to cope better. You may continue to use your usual moisturiser or if you need to buy one, we recommend one without the additive, sodium lauryl sulphate (SLS). During treatment, apply the moisturiser sparingly twice a day or more often if your skin is very itchy.

Clothing

Wear loose, comfortable clothing. Underwear should be made of natural fibres such as cotton. Wear boxer short-style underwear, rather than anything tight and confining, to avoid getting too hot and making your skin sore.

Swimming

Reduce the number of times you swim in chlorinated water as this can have a drying effect on the skin. After swimming, shower to remove excess chlorine and discontinue swimming if the skin becomes sore.

Saunas and Turkish baths

These should be avoided during treatment and for a few weeks after, to prevent your skin from drying out.

Do not use any creams or ointments on your skin without checking with a radiographer first.

How do I get further supplies of my medicines?

After being prescribed medicines at the hospital, take the white copy of your prescription to your GP, who can continue to prescribe these for you.

Anyone with a cancer diagnosis is entitled to free prescriptions. If you do not already have a medical exemption card, you can get an application form from your GP, the oncology outpatient department, or from the Dimbleby Cancer Centre. Please ask us if you need any further information.

What happens when treatment ends?

Last week of radiotherapy

In the last week of treatment, you will see a treatment support radiographer to review your side effects and discuss how to manage them. The side effects are likely to worsen during the first two weeks after treatment and then they will start to improve.

On the last day of treatment, you will be given a Treatment Completion Form summarising your treatment. We will send one copy to your GP and give you one for your own records.

Follow-up after treatment

Six to twelve weeks following the end of your treatment, you will be seen again in the clinic where you were originally seen. This appointment is to check that you are recovering well.

In the long term, you will be followed up by your oncology team or referring surgeon. This is to assess both your recovery and your response to treatment.

Commonly asked questions

Where can I get advice on financial support during treatment?

Dimbleby Cancer Care offers a benefits advice service at Guy's and St. Thomas'. To book an appointment, please telephone **020 7188 5918**.

When can I go on holiday?

You can go on holiday as soon as you feel well enough.

When can I go back to work?

Some patients continue to work throughout their radiotherapy treatment, while others may feel they need a few weeks break before returning. If you have had a long break from work it may be advisable to plan a phased return, where you work shorter hours initially.

Additional information

In order to improve treatments and services, audits are regularly carried out in the department. This can involve using patient notes. Any data collected will have all personal and identifiable details removed to ensure patient confidentiality. However, if this is unacceptable to you, and you would prefer that your notes are not seen, please let your consultants know and your wishes will be respected.

Clinical trials are undertaken within the department, which you may be eligible to take part in. If necessary and appropriate, your doctor will discuss this with you.

Contact us

Radiotherapy reception	020 7188 7188 (ext 57542 or 57569)
Radiotherapy bookings	020 7188 3160
Radiotherapy treatment support team (8.30am to 5.30pm, Monday to Friday)	020 7188 4220
Acute oncology assessment unit (9am to 6pm, Monday to Friday)	020 7188 3754

Out of hours oncology doctor on call

If you require assistance out of hours, please phone the hospital on **020 7188 7188** and ask them to contact the oncology doctor on call. Please have your hospital number ready. The switchboard operator will take your details and ask the emergency oncology doctor to phone you back.

If you are concerned, please go to your local emergency department.

Further information

Macmillan Cancer Support

If you have any questions about cancer, need support, or just want to chat, call the free Macmillan Support Line.

t: 0808 808 0000 (9am to 8pm, Monday to Friday)

w: www.macmillan.org.uk

Prostate Cancer UK

Offering free confidential information and support.

t: 0800 074 8383

w: www.prostatecanceruk.org

Guy's and St Thomas' hospitals offer a range of cancer-related information leaflets for patients and carers, available at www.guysandstthomas.nhs.uk/cancer-leaflets. For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

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Dimbleby Cancer Care provides cancer support services for Guy's and St Thomas'. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers.

Dimbleby Cancer Care is located in the Welcome Village of the Cancer Centre at Guy's. **t:** 020 7188 5918
e: DimblebyCancerCare@gstt.nhs.uk

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and Accessible Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved.

t: 0800 731 0319 **e:** members@gstt.nhs.uk

w: www.guysandstthomas.nhs.uk/membership

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