



**Royal Berkshire**  
NHS Foundation Trust

# **Radiotherapy for prostate cancer**

Information for patients on  
radiotherapy treatment

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## What happens next?

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In the clinic today, you and your doctor have decided that you will have radiotherapy treatment for your cancer. This booklet discusses what you can expect during and after your treatment and gives some general advice and information.

You will be given time to discuss any concerns with the radiographer (a person trained to give radiotherapy) at your planning appointment.

This information can also be found in a video format on the Trust website: [www.royalberkshire.nhs.uk/featured-services/berkshire-cancer-centre/radiotherapy/](http://www.royalberkshire.nhs.uk/featured-services/berkshire-cancer-centre/radiotherapy/)

### Planning treatment

We will contact you by letter or telephone to arrange an appointment for the CT scan that forms part of the planning of your radiotherapy treatment and which can take up to one hour. During this call, please mention if:

- You have a pacemaker or other implanted cardiac device as radiotherapy can affect some types of cardiac device.
- You have not had a blood test taken in the last 12 weeks as we may require you to take one prior to the planning scan date.
- You have any problems with travel or appointment times and we will do our best to help you.

If you are taking hormone therapy, we will send you your planning appointment in a few weeks' time.

If you have any questions regarding your CT scan appointment, then you can contact us on the number below:

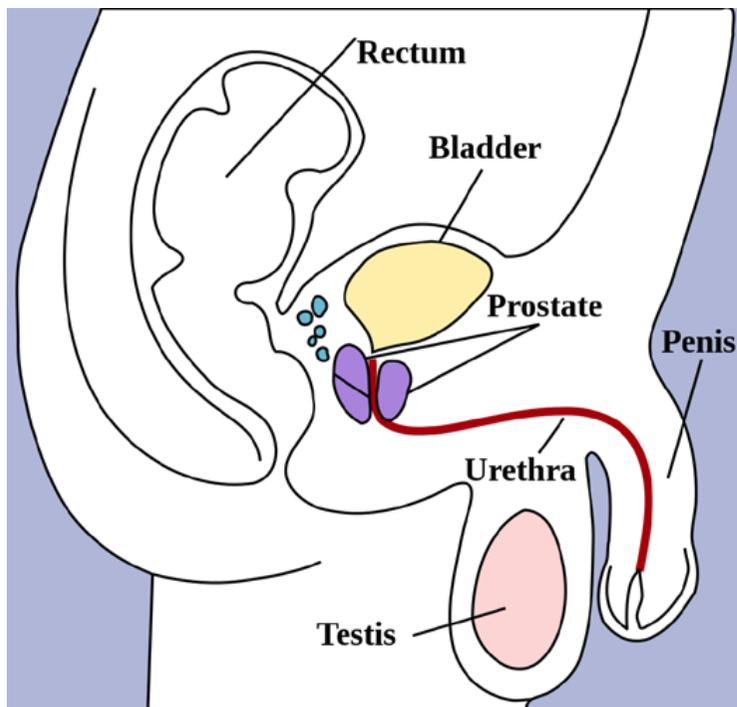
**Telephone: 0118 322 7872**

**Monday-Friday 8.30am-9.30am 3.30pm-4.30pm**

Your treatment will then be scheduled to start approximately 2-3 weeks after the planning CT.

## What are the benefits of radiotherapy?

Your oncologist (cancer specialist) has referred you for a course of radiotherapy to the prostate gland or to the prostate bed if the prostate gland has been surgically removed. The benefits of radiotherapy are due to its effect against cancer in the area being treated. Radiotherapy uses high energy x-rays to kill cancer cells. Our bodies are made up of different cells, which all have the capacity to divide. If radiation hits a cell that is dividing, it will damage it. Unlike normal cells, cancer cells are much less able to repair the damage, so more of them will be destroyed. This diagram may be useful to help you understand the area to be treated with radiotherapy. Your doctor may draw on them to help explain your treatment.



*Male pelvis – side view.*

## **Radiotherapy for prostate cancer**

Depending on the results of your surgery or biopsy, you will have been prescribed between 20 and 37 treatments. Your treatment will be given daily and your oncologist will discuss with you the number of treatments you need.

Once you have been referred for radiotherapy, a member of the radiotherapy staff will telephone you with an appointment to attend either the Radiotherapy department in the Berkshire Cancer Centre (BCC) or the Bracknell Clinic for a CT scan, which is the first stage in planning your treatment. If you have any problems with travel or appointment times, please mention these when we contact you about your CT scan appointment – we will do our best to help you. We can give you a parking permit if you or a friend or relative drives you to the hospital for your appointments. Please ask at the Radiotherapy reception for this. While the permit entitles you to free parking, it does not guarantee a parking space. Parking availability at the Royal Berkshire Hospital can be very limited.

## **Preparation for planning and radiotherapy**

Where possible, we need to ensure that both your bowel and bladder are in the same position at the planning CT scan and each radiotherapy treatment. It is beneficial that you have a regular bowel movement before the planning CT scan and each day before your radiotherapy treatment. This will help reduce the build up of gas inside your bowel, which can cause different amounts of rectal filling. We ask that you attend for the planning CT scan appointment having emptied your bowels if possible, although we caution against straining in order to achieve this.

We also need you to be able to hold a comfortably full bladder for the CT scan and each of the treatment sessions.

You will be asked to empty your bladder upon arrival for your scan and then asked to drink a specific amount of water prior to your scan. We

will then perform your scan approximately 30 minutes after you have finished drinking the water. This is to allow your bladder to fill and is an important process in planning your course of treatment and for your subsequent daily treatments. It is important that you are well hydrated in the days leading up to the CT scan and throughout the course of treatment. We advise patients to aim for 4-5 pints (2 litres) of fluid across the day, most of which should be water. We recommend that you do not drink more than a couple of cups of tea and coffee a day, and decaffeinated tea and coffee is preferable.

Please allow up to one hour for the CT scan appointment.

## **The CT scan – your first planning appointment**

Radiographers (x-ray specialists) from the Radiotherapy Department will carry out your CT scan. You will lie on the CT couch with your clothes parted and clear from around your pelvis area. Please remove your shoes for the scan and subsequent treatments. We will use knee rests and ankle stocks to support you in an exact but comfortable position. This will be replicated for your treatment every day.

## **Contrast injection ('dye')**

The doctor may have requested that you have an injection of contrast for the scan. Not everyone will have this but for some it is helpful.

You may have had an injection of contrast for scans before. It involves having a cannula, which is a bendy tube inserted into your arm or hand using a needle. The needle is used only to position the cannula and is removed once the cannula is in place. The cannula left in your vein is used to inject the contrast through. The radiographers will let you know when the injection is about to start.

The contrast injection may create a very warm feeling for about 20 seconds. This is often concentrated around the pelvis and groin area spreading down the thighs. It may also give you a metallic taste in your

mouth. These are all common and disappear quickly. The cannula will be removed about 20 minutes after your CT scan is finished.

**If you have had an allergic reaction to contrast dye before, you must tell the radiographers before your scan.**

## **Marking out the treatment area**

The planning radiographers will draw some temporary pen marks on your skin around your pelvis to define the area your oncologist is going to treat. The radiographers will then place some markers on your skin, which will show up on the scan to aid us in planning your treatment. Measurements are taken to record the position of these marks, which will be used each time you come for your treatment. Your pelvis will then be scanned, during which time you will not feel anything.

The couch will move through the scanner.

The scan will take approximately two minutes. It will not hurt but it is very important that you stay very still during the scan, while breathing in a relaxed manner. The radiographers are watching you throughout the whole procedure.

The final part of the planning procedure is to tattoo 3 points around your pelvis. This involves pricking the skin with a needle, which you may find a bit uncomfortable. This will produce very small pinpoint-sized permanent black marks, which, used with the knee rest and ankle stocks, will allow the radiographers to make sure exactly the same area gets the treatment each time.

At your CT scan, we will give you the date and time for your first treatment. This will be approximately 2-3 weeks after your CT scan, and you will be shown where to report in next time. During this time, we use your CT scan images to produce a computerised plan of your treatment, ensuring an even dose of radiation to the prostate, or the prostate bed, while minimising the dose to surrounding tissues and organs – e.g. back passage and bladder. There will not be any ‘results’ from the CT scan, it is used to help us plan your radiotherapy.

## **Your first radiotherapy treatment**

When you arrive for treatment, please report into the receptionist in the main Radiotherapy waiting room.

On your first treatment day, you will have a chat with one of the team of radiographers who will be treating you. They will:

- Check your details.
- Give you a list of appointment times.
- Discuss the amount of water you will need to drink before treatment every day.
- Discuss the treatment procedure.
- Outline the potential side effects.
- Tell you about your review days with review radiographers and/or doctor.
- Answer any questions you may have.
- They will then ask you to empty your bladder and to drink the required amount of water.

## **What happens during the treatment?**

Each time you attend the department for treatment we need to ensure we are treating the correct person. As you enter one of the treatment areas, we will ask you to identify yourself by telling staff your name, date of birth and first line of your address. The staff will check this information against the treatment sheet that has your radiotherapy prescription.

Each day you will be positioned as you were for your planning scan and you will need to have a comfortably full bladder and empty bowels if possible, for this and every subsequent treatment. The radiographers will then position you for your radiotherapy by lining up the tattoo marks on your pelvis. Our treatment machines have a camera system attached that uses infra-red lights to help us get you into the correct position and will also detect movement during the

radiotherapy. We will need to remove your clothing from the waist down in order to use the camera system. You may feel a bit exposed, but we will cover you with tissue paper to maintain your dignity, and it will only be your treatment team that is present with you. You will not feel anything from the infra-red light and it will not affect or hurt your eyes so you can keep them open if you wish. Please do let us know if you are light sensitive.

All the measurements for your treatment will then be set and checked. The machine will then move to the first treatment position. The radiographers then leave the room to deliver your treatment. This is so they aren't exposed to too many high-energy rays, as they will treat many patients during one day.

During the radiotherapy treatment, it is **very important** you remain still, breathing quietly, as during your planning session.

During your treatment course, we will take x-ray images to confirm your treatment position. These are repeated on subsequent treatment days as required.

An additional check will also be conducted using a dose measurement device for the duration of one of your treatment sessions. This is done to confirm the dose given according to your treatment plan.

The radiographers check all the details of your treatment plan before going out of the treatment room as they operate the machine from outside of the treatment room. Although you are alone in the room, you will be monitored on a TV camera during your treatment. If you need a radiographer during the treatment, raise your hand clearly and a radiographer will stop the treatment and come into the room. You will not see or feel any thing during the treatment but you will hear a buzzing noise as the treatment is delivered.

The total time of your first treatment will be approx 30 minutes. Subsequent treatments should take between 10 and 15 minutes.

Once we have started treatment we aim to go through it without any breaks or days off. However, we know that circumstances do sometimes arise where either you cannot come for treatment or for technical reasons (e.g. a machine breakdown) we are not able to deliver to the original schedule. If any treatments are missed, then they will be added on to the end of the course. This will not affect the effectiveness of treatment and in the event of repeated delays, we will give you more information.

If there are any short notice changes of appointments times, we ask for your understanding while the staff work hard to rearrange your appointment.

Radiotherapy does not make you radioactive and it is perfectly safe for you to be with other people, including children, after your treatment.

## **After treatment**

### **Possible side effects**

Side effects and their intensity will vary from patient to patient – everyone is different and reacts differently to the treatment. It is important you keep the radiographers informed of any side effects you experience.

Most side effects will gradually start from approximately 2 weeks into your course of treatment and may continue for 4-6 weeks after your treatment is completed.

- **Skin reaction:** You may experience a skin reaction on the area we are treating which may become dry and itchy. To reduce the chance of a skin reaction we advise that you:
  - Apply a moisturising cream on the treatment area. Apply gently, twice a day.
  - After a bath/shower, towel dry the treatment area by patting not rubbing the skin, ideally, where possible, allow skin to dry naturally.

- Avoid applying hot or cold heat sources to the treatment area.
- Avoid exposing the treatment area to the sun.
- Try to keep natural fibre clothing against your skin.
- Swimming is ok while on treatment; although we ask that you seek advice if you notice a skin reaction developing. Swimming should be discontinued if your skin has any areas of breakdown.

If you experience any itching in the treatment area please let the radiographer know and he/she will advise you further.

Towards the end of the treatment, the skin between your legs and around your back passage may become darker in colour.

You may experience some hair loss in the area being treated. This usually grows back but sometimes, hair loss may be permanent.

If you experience any **pain or discomfort**, take painkillers, such as paracetamol, following the dosage instructions on the packaging.

- **Tiredness:** Radiotherapy can make you feel tired, as can the anxiety and travelling for the treatment. The tiredness may start while you are having treatment and continue for a number of weeks after the treatment has finished. Many men continue to work throughout their treatment but if tiredness becomes a problem, you may need to take time off work.

If necessary, you should allow extra time for a rest, for example an afternoon nap. If possible, spread your chores out over the week.

There is no reason why you should not continue with your usual daily activities if you feel able, and many people report a benefit of maintaining gentle exercise each day throughout their radiotherapy.

- **Bowel problems:** The bowel and back passage can be exposed to some radiation because they are close to the area being treated. This may not cause problems but in most men, it can cause the lining of the bowel to become inflamed (proctitis).

Side effects will vary in different people. Some men will start to have loose and watery stools (diarrhoea); they will pass more wind and have to open their bowels more frequently. This may mean that

you have to rush to the toilet. Some men will have the opposite and find it difficult to go to have their bowels open (constipation). You may feel pain around your back passage or stomach, or feel that you have not emptied your bowels properly. You may pass some mucus or blood.

Please tell the review radiographers or contact your nurse specialist if you have these changes. They may recommend medicine and creams to help your symptoms.

If you feel bloated or have excessive wind, you may find it helpful to eat for 3 small easily digested meals each day with 2 or 3 snacks in between, as this will help in keeping your bowels regular.

Keep hydrated by drinking 4-5 pints (2 litres) of fluids per day. Limit caffeine – such as tea and coffee (or drink decaffeinated versions). Symptoms usually happen in the second or third week into treatment and will settle down a couple of weeks after the treatment has finished. Some men find that the symptoms may continue and become permanent (see late side effects).

- **Urinary symptoms:** During your treatment, the sensitive lining of your bladder may become irritated by the treatment. This may cause a burning feeling when you pass urine. You may need to pass urine more frequently and with a greater sense of urgency. This usually improves after you have finished your treatment. This can be helped by increasing your fluid intake throughout the day, but try to avoid excess tea, coffee and alcohol. Some men find that drinking cranberry juice and lemon barley helps to settle this irritation. If you are taking the drug Warfarin, avoid cranberry juice as it can have an effect on the drug. If the pain increases or you are unable to pass urine you must tell the radiographers as soon as possible.
- **Problems with your sex life:** You may find that you have a loss of libido, and have little or no desire for sexual intercourse. You may find that you have difficulty getting and/or maintaining an erection.

You may find ejaculation uncomfortable because the tube that you pass urine and semen through may become inflamed. The inflammation should improve after you have finished treatment.

If you receive anal penetration, we suggest that you wait until any bowel problems or sensitivity in this area has passed.

You are advised to use contraception during treatment and for at least one year afterwards, if there is a chance of your partner becoming pregnant.

**The side effects from this treatment can feel embarrassing but please let your specialist or radiographers know, as often, simple treatments are available to help.**

## **Long term side effects**

- **Changes in bowel habits:** The need to go urgently and frequently, diarrhoea, straining, general feeling of discomfort in the rectum (back passage), bleeding or mucus from the back passage. These symptoms may be caused by the radiotherapy affecting healthy cells, making them irritated, sore and **inflamed** (proctitis).
- **Bladder problems:** Incontinence (loss of control over your urine flow), and cystitis (bladder inflammation). These symptoms may be caused by the radiotherapy affecting the bladder and the urethra (tube that carries urine from the bladder) which are next to the prostate.
- **Erectile dysfunction (problems getting an erection):** Radiotherapy can affect your ability to get and maintain an erection. This is because it can injure the healthy cells in the blood vessels and nerves that are close to the prostate and that control erections.
- **Dry orgasm:** Some men find that they do not produce any fluid when they ejaculate. This is because the prostate cells that produce the fluid can become damaged by radiotherapy. This is called 'dry orgasm' or 'dry ejaculation'.

These side effects often begin 3-6 months after treatment stops, but they can still appear for the first time a year or two later.

If you experience any of the above problems, ask your GP for advice. Please ask your team of radiographers or your specialist nurse if you have any questions or concerns.

## **Contact details**

The review radiographers can be contacted on 0118 322 8869.

The uro-oncology specialist nurses can be contacted on: 0118 322 7905 for the Royal Berkshire Hospital nursing team or 0300 6153809 for the Wexham Park Hospital nursing team.

## **Further information**

If you would like more information on this treatment and its potential side effects, then two sources of information are:

1. Pelvic Radiotherapy in men: possible late side effects by Macmillan Cancer Support ([www.macmillan.org.uk](http://www.macmillan.org.uk))
2. External Beam Radiotherapy Fact sheet from the Prostate Cancer Charity Tool Kit ([www.prostatecanceruk.org](http://www.prostatecanceruk.org) )

Both of these can be obtained from the Macmillan Cancer Information Centre situated in the Berkshire Cancer Centre or on 0118 322 8700.

## Useful organisations

Macmillan Cancer Support 0808 808 00 00 <a href="http://www.macmillan.org.uk">www.macmillan.org.uk</a>	Prostate Cancer UK Helpline: 0800 074 8383 <a href="http://www.prostatecanceruk.org">www.prostatecanceruk.org</a>
Prostate Research Campaign UK Tel: 020 8877 5840 <a href="http://www.prostate-research.org.uk">www.prostate-research.org.uk</a>	Patient Advice & Liaison Service (RBFT PALS) 0118 322 8338 PALS@royalberkshire.nhs.uk

# Notes

To find out more about our Trust visit [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

**Please ask if you need this information in another language or format.**

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Revised: Allison Hopkins Updesh Kaur – November 2021

Review due: November 2023