



Royal Berkshire
NHS Foundation Trust

Radiotherapy to the pelvis for anal and rectal tumours

Information for patients on radiotherapy treatment

Berkshire Cancer Centre Radiotherapy Planning
Opening times: 8.30am-4.30pm Monday to Friday
Level 1 North Block, Royal Berkshire Hospital
Tel: **0118 322 7872**
Email: **radiotherapy.planning@nhs.net**

What happens next?

In the clinic, you and your doctor have agreed that you are going to have radiotherapy treatment for your cancer. This booklet explains 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.

Planning treatment

You will be contacted by telephone to arrange an appointment for the CT scan that forms part of the planning of your radiotherapy treatment. During this telephone call please mention if:

- 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 been admitted to hospital since your last blood test.
- You have any kidney problems.
- You have diabetes.
- You have a pacemaker or other implanted cardiac device as radiotherapy can affect some types of cardiac device.
- You have any problems with travel or appointment times and we will do our best to help you.

If you have not been called by the Radiotherapy Planning Department within a week of today's appointment, then you can contact us on the number below, leaving a message on the answer phone when asked.

Telephone: 0118 322 7872 Email: radiotherapy.planning@nhs.net
Monday-Friday 8.30am-4.30pm

If you have any problems with travel or appointment times please mention these when you are contacted about your planning scan appointment and we will do our best to help you. Please allow two hours for this planning appointment.

Patient identification

The hospital has a policy to ensure the correct patient is identified for their scan or treatment each time they attend an appointment. This will be done by our staff asking you to confirm your full name, your date of birth and the first line of your address. You may be asked this by different staff members, so please bear with us, but we take great care to ensure the correct patient identification checks are undertaken.

What are the benefits of radiotherapy for rectal and anal cancer?

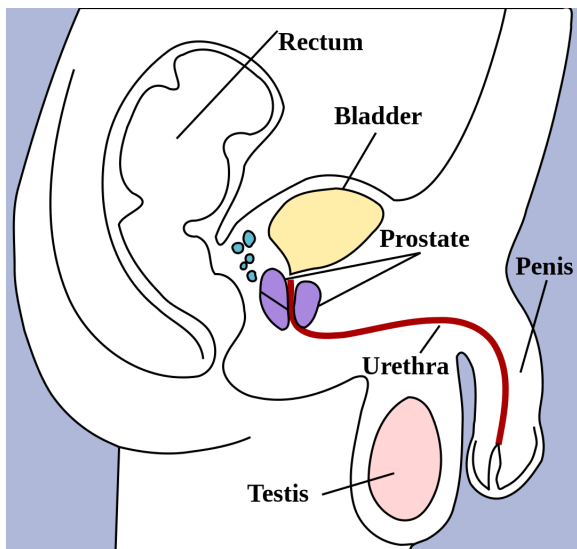
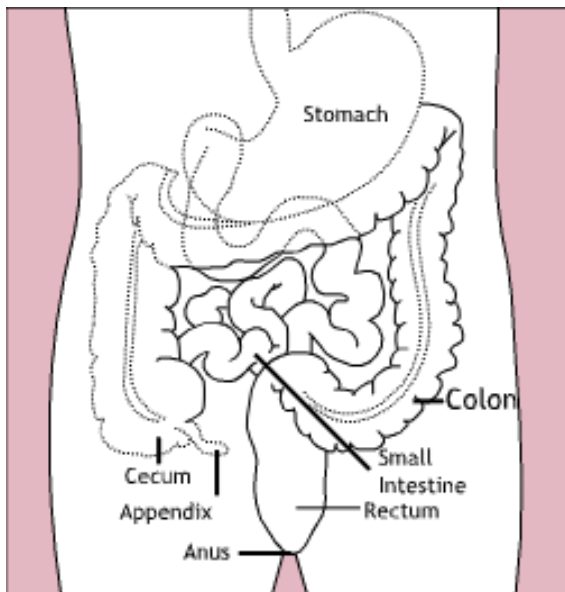
In rectal and anal cancer, radiotherapy is given to the tumour in the rectum and or/anal canal and surrounding tissues. Radiotherapy works by using high energy x-rays to kill cancer cells. Our bodies are made up of different cells and all cells have the ability to divide and grow. If radiation hits a cell that is dividing, it will be damaged. Unlike normal cells, cancer cells are much less able to repair the damage, which means that more of them will be destroyed.

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

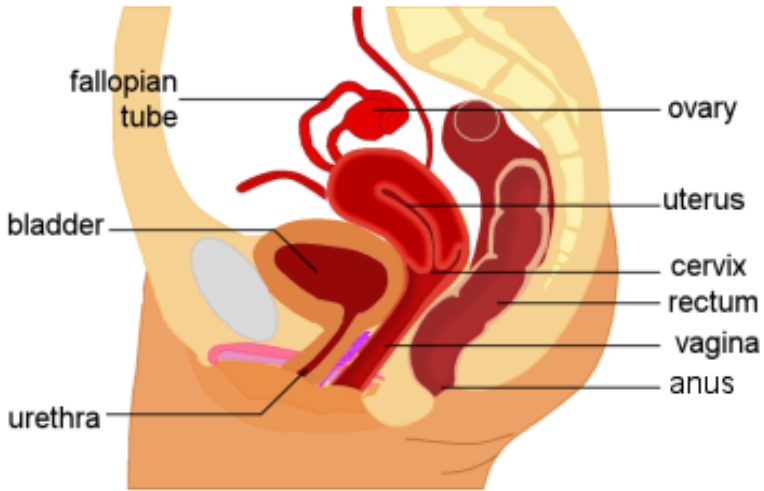
The number of treatments you are given will depend upon the nature of your cancer; and the doctor will have explained this to you.

The areas being treated

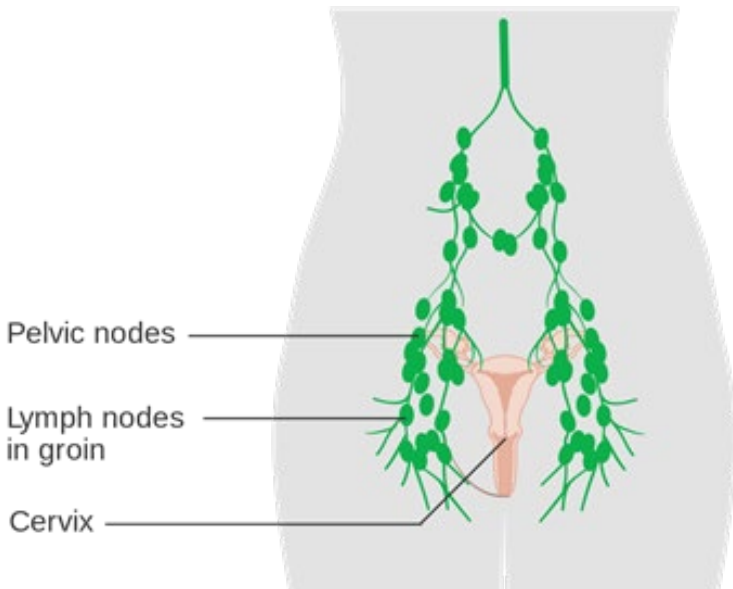
These diagrams may be useful to help you understand where your cancer is and the area to be treated with radiotherapy. Your doctor may draw on them to help explain your treatment.



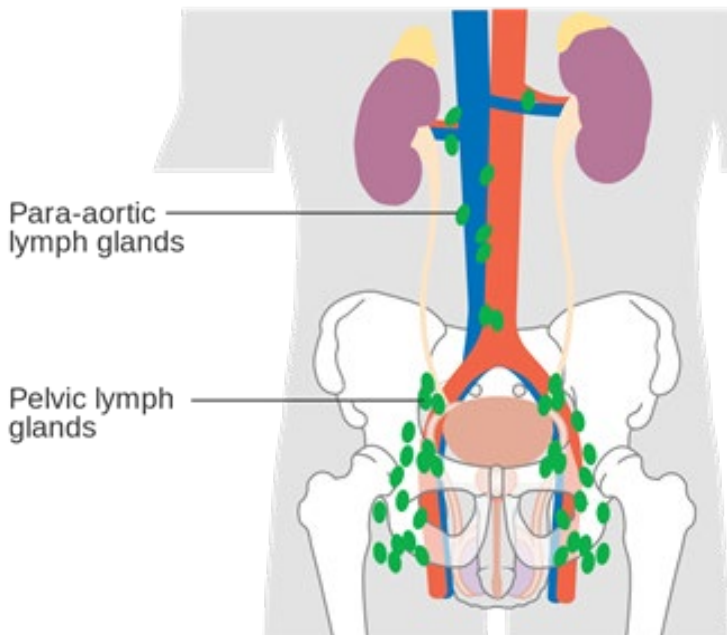
Male pelvis – side view.



Female pelvis – side view.



Female pelvis showing lymph nodes.



Male pelvis showing lymph nodes.

Chemotherapy

Your doctor may recommend some chemotherapy as well as radiotherapy. Chemotherapy is the use of drugs to treat cancer, and to enhance the effects of radiotherapy. If your doctor feels you might benefit from this treatment, he or she will discuss this with you. The staff will give you a leaflet with specific information about the type of chemotherapy that you are going to have.

Contraception – avoiding pregnancy

Patients with child bearing capacity **must not be pregnant or become pregnant at any time during planning and the course of radiotherapy**, as radiation can be harmful to the unborn child. It is important to let the radiographers know if you have missed a period or suspect that you may be pregnant, before you are exposed to any radiation.

Patients with child bearing capacity will be asked to confirm their pregnancy status prior to planning the radiotherapy and again on the first day of radiotherapy treatment. This applies to all women between the ages of 10-56 years and is a legal requirement.

Radiation can also damage the production of sperm in patients undergoing pelvic radiotherapy and so patients must use contraception during treatment and for at least one year afterwards if there is a chance of your partner becoming pregnant.

Patient identification

The hospital has a policy to ensure the correct patient is identified for their scan or treatment each time they attend an appointment. This will be done by our staff asking you to confirm your full name, your date of birth and the first line of your address. You may be asked this by different staff members, so please bear with us, but we take great care to ensure the correct patient identification checks are undertaken.

CT scan – your planning appointment

When you arrive for your planning appointment, please report into the receptionist at the desk in the radiotherapy waiting room. They will tell you where to wait until a member of the radiotherapy team comes to call you in for your scan.

Before the scan starts, one of the radiographers will explain what is going to happen and answer any of your questions. They will explain to you that you will need to have a comfortably full bladder for this scan.

During your CT scan you will lie on the CT couch with the bottom half of clothing removed. The radiographers will ask you to lie on your back, and they may need to position a small wire marker on the entrance to your back passage. They will draw some pen marks on your pelvis with a washable pen. Some markers are placed on your skin which will show up on the scan. Measurements are then taken

to record the position for treatment. The radiographers will then leave the room to start the scan. During the scan you will move through the scanner; however, you will not see or feel anything. You can breathe normally throughout the scan.

The scan will take approximately two minutes. It will not hurt but it is very important that you stay very still during the scan. Please be assured that the radiographers are able to see you throughout the whole procedure.

Contrast ('dye') injection

The doctor may have asked for you to have an injection of contrast for the scan; not everyone will have this but for some patients it is required.

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 contrast (dye) is injected through this cannula. 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 15 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.

After your CT scan you will be given the date and time for your treatment appointment. This will be approximately two to three weeks after your CT scan. This allows us to use your CT scan images to produce a computerised plan of your treatment.

You will be given a parking permit if you or a friend or relative drives you to the hospital for your appointments. While the permit entitles you to free parking, it does not guarantee a parking space; parking availability can very limited.

Your first radiotherapy treatment

When you arrive for your treatment, please report into the receptionist at the desk in the radiotherapy waiting room. They will tell you where to wait until a member of the radiotherapy team comes to call you in for your treatment.

On your first treatment you will have a chat with a radiographer who will be treating you. They will:

- Check your details.
- Give you a list of the first week's appointment times.
- Discuss the treatment procedure.
- Outline the potential side effects.
- Tell you which day your doctor or review radiographer will see you during the treatment.
- Answer any questions you might have.

The Berkshire Cancer Centre is a training centre, so you may meet radiotherapy students who may be involved with the delivery of your treatment under close supervision.

What happens during treatment?

Each time you attend 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 radiographers your name, date of birth and first line of your address. The staff will check this information against your radiotherapy prescription.

You will be positioned as you were for your planning scan and you will need to have a fairly full bladder for all of your radiotherapy treatments. The radiographers will position you for your radiotherapy treatment to get you lying straight on the couch. Our treatment machines have a camera system attached which uses infra-red lights to help us get you into the correct position and will also detect movement during the radiotherapy.

Because of the way the camera system works, we will need to remove your clothing from the waist down in order for the team to use the camera system. You may feel a bit exposed, but your treatment team will discuss ways of maintaining your privacy, and it will only be your treatment team that is present in the treatment room 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 be set and checked, and the machine will then move to the first treatment position. At this point the radiographers will leave the room.

During the radiotherapy treatment it is **very important** that you remain still, breathing normally, as you did in your CT scan.

During your first few treatments we will take x-ray images to confirm your treatment position. These are then repeated weekly or more frequently as required. These x-ray images are used for position checking only. They do not show us how the treatment is working.

An additional check will also be carried out using a dose measurement device which is taped to your skin during one of your treatment sessions. This is done to confirm the dose given matches your treatment plan. This is a routine check and may be repeated on another of your treatment sessions.

The radiographers operate the machine from outside of the treatment room and they will check all the details of your treatment plan before they leave the room. Although you are alone in the treatment room, they will be watching you on CCTV. If you need a radiographer during the treatment, raise your hand clearly and they 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 approximately 30 minutes. Subsequent treatments should take between 10 and 15 minutes.

Once treatment has started, we aim to continue it without any breaks or days off, apart from the weekends. However, we know that circumstances do sometimes arise where either you cannot come for treatment or for technical reasons e.g. a machine breakdown, when we might not be able to deliver to the original schedule. If any treatments are missed, the radiographers will discuss with you how we will compensate for this. This will not change the effectiveness of treatment and in the event of repeated delays you will be given more information. If there are any short notice changes of appointments times we ask for your understanding and patience while the staff works 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 severity will vary from patient to patient – everyone reacts differently to the treatment. It is important you tell the radiographers of any side effects you may have.

Most side effects will start gradually from approximately two weeks into your course of treatment and may continue for three to four weeks after your treatment is completed.

Skin reaction: You may see a skin reaction on the area we are treating. This begins as a mild reaction similar to sunburn and may become dry and itchy. In some cases, the reaction may become more severe, similar to bright red sunburn. Towards end of treatment, the skin around the anus, the vagina in women or scrotum in men may break down and weep.

To minimise skin soreness we advise that:

- After bathing or showering, gently dry the treatment area by patting not rubbing the skin, or ideally, where possible, allow the skin to dry naturally. Avoid applying hot or cold heat sources to the treatment area.
- Apply moisturising cream twice a day to moisturise the treatment area although you should avoid applying the cream one hour before your treatment.
- Avoid exposing the treatment area to the sun.
- Try to keep loose, cotton clothing against your skin.
- Swimming is ok whilst on treatment; although we ask that you seek advice should you notice a skin reaction developing.

If you experience any itching in the treatment area please let the radiographer know and you will be referred to the skin care specialist radiographer for guidance.

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

Due to possible soreness and discomfort, we advise that you refrain from penetrative sexual intercourse until any bowel problems or sensitivity in this area have passed.

You may lose some of the hair in the area that is being treated. This usually grows back but sometimes hair loss can be permanent.

If you experience any pain or discomfort, you can take painkillers, such as paracetamol, following the dosage instructions on the packaging. If the pain continues even though you are taking regular painkillers please discuss this with the radiographers, your oncologist or the clinical nurse specialists.

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.

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 shouldn't continue with your usual daily activities if you feel able, and many people report a benefit of maintaining gentle exercise, such as walking each day throughout their course of radiotherapy.

Keeping hydrated by drinking 6-8 cups of water per day, limiting caffeine such as tea and coffee (or replace with decaffeinated versions) can also help to keep you more active.

Urinary symptoms: During your treatment the sensitive lining of your bladder may become irritated by the treatment which may cause a burning feeling when you pass urine. You may need to pass urine more frequently and with a greater sense of urgency, but this usually gets better when your treatment is finished. The burning and frequency can be helped by drinking plenty and avoiding too much tea, coffee and alcohol.

Some patients find that drinking cranberry juice and lemon barley water 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. Outside work hours please contact your GP.

Changes in bowel habit: Changes may involve the need to open your bowels urgently and frequently, diarrhoea, straining, general feeling of discomfort in the rectum, bleeding or mucus from the back passage. These symptoms may be caused by the radiotherapy affecting healthy cells, making them irritated, sore and inflamed.

Fertility: This treatment causes infertility which is permanent and very likely to bring forward the menopause during the three to four months after treatment in those patients who are still having regular periods.

Your doctor may advise you to start hormone replacement therapy (HRT) if your symptoms are troublesome.

If fertility is an issue for you and your partner, please let the doctor who is planning your treatment know so that this can be discussed further with you. If appropriate they can arrange for you to see a fertility specialist urgently.

Radiation can also damage the production of sperm in patients undergoing pelvic radiotherapy and so patients must use contraception during treatment and for at least one year afterwards if there is a chance of your partner becoming pregnant.

Painful ejaculation: During radiotherapy treatment, the tube that you pass urine and semen through may become inflamed. This may make ejaculation uncomfortable during your course of radiotherapy; however, it should improve after you have finished your treatment. The side effects from this treatment can be embarrassing but please let your nurse specialist or radiographers know as often simple treatments available may help.

Late side effects

Radiotherapy can cause problems which become evident months or even years after treatment is complete; these are called Late Effects and are difficult to predict. You should always report them to your GP or hospital team for assessment and advice.

You may wish to read the Macmillan booklet 'Managing the late effects of pelvic radiotherapy' which is available from the Macmillan information office or from your specialist nurse.

Bleeding: Some patients can experience bleeding either from the bowel or bladder as a late side effect. This can be intermittent and is usually not severe or significant. However it should be investigated to make sure there is no other cause. Sometimes treatment is needed.

Bowel late effects: You might continue to feel an urge to empty your bowels more often or with more urgency. Although this may gradually improve over time, there is a chance that you might need to wear pads. Sometimes scar tissue forms as the area is healing. If scar tissue affects the bowels it can add to the problems of diarrhoea. Very rarely this can lead to a narrowing or even a blockage in the bowel. An operation may be needed to remove this narrowed area, but this is a very rare problem.

Vaginal late effects: Radiotherapy treatment can affect the vagina, causing changes. These include: vaginal scarring (fibrosis), shortening and tightening of the vaginal space (stenosis) and the walls of the vagina may stick together (adhesions). To prevent these occurring, you will be advised on the use of vaginal dilators by the radiographers. We will give you an information sheet about this.

Penile late effects:

- **Erectile dysfunction (problems getting an erection)**

Radiotherapy can sometimes affect your ability to get and keep an erection. This is because it can injure the healthy cells in the pelvic blood vessels and nerves that control erections. If this is a concern to you, please talk to your doctor, nurse specialist or your GP, who will be able to support and advise you.

- **Retrograde ejaculation**

Due to nerve problems following surgery and radiotherapy, some patients may find that on ejaculation the sperm enters the bladder and is later passed out during urination.

If you experience any of the above problems, contact your GP or hospital specialist for advice.

Additionally, please ask your team of radiographers or your specialist nurse if you have any questions or concerns.

Contact details

Colorectal Nurse Specialists: 0118 322 7182

Radiotherapy Planning Department: 0118 322 7872

Email: radiotherapy.planning@nhs.net

Macmillan Cancer Information Centre: 0118 322 8700

Further information

- Macmillan Cancer Support 0808 808 2020 www.macmillan.org.uk
- Royal Berkshire NHS Foundation Trust Patient Advice and Liaison Service (PALS): 0118 322 8338 or email PALS@royalberkshire.nhs.uk

Notes

To find out more about our Trust visit www.royalberkshire.nhs.uk

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

BCC Radiotherapy Planning Department.

Reviewed: September 2022 by Allison Hopkins, Updesh Kaur, Alice Freebairn. Next review due: September 2024