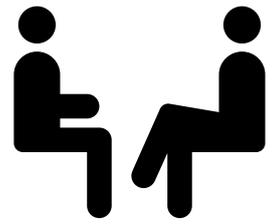


External beam radiotherapy



In this fact sheet:

- How does radiotherapy work?
- Who can have radiotherapy?
- What types of radiotherapy are there?
- What are the advantages and disadvantages of external beam radiotherapy?
- What does treatment involve?
- What happens next?
- What are the side effects?
- Dealing with prostate cancer
- Questions to ask your doctor, nurse or radiographer
- More information
- About us

This fact sheet is for anyone who has been offered external beam radiotherapy to treat their prostate cancer. Your partner, family or friends might also find it helpful.

In this fact sheet we talk about how this type of radiotherapy can be used to try to get rid of localised prostate cancer (cancer that hasn't spread outside the prostate) or locally advanced prostate cancer (cancer that has spread to the area just outside the prostate).

Radiotherapy can also be used to relieve symptoms caused by prostate cancer that has spread to other parts of the body (advanced prostate cancer). This is sometimes called palliative radiotherapy. But you can read about this in our fact sheet, [Radiotherapy for advanced prostate cancer](#).

Each hospital will do things slightly differently, so use this fact sheet as a general guide. Ask your doctor, nurse or therapeutic radiographer (health professional who gives

radiotherapy treatment) for more details about your treatment and the support available to you. You can also speak to our Specialist Nurses, in confidence, on 0800 074 8383 or chat to them online.

Symbols

These symbols appear in this fact sheet to guide you to more information:



Speak to our Specialist Nurses



Read our publications

How does radiotherapy work?

Radiotherapy aims to destroy prostate cancer cells without causing too much damage to healthy cells. External beam radiotherapy is when high-energy X-ray beams are targeted at the treatment area from outside the body. These X-ray beams damage the cancer cells and stop them from growing and spreading to other parts of the body (advanced prostate cancer). Radiotherapy permanently damages and kills cancer cells, but healthy cells can repair themselves and recover more easily.

Radiotherapy treats the whole prostate. It is also sometimes used to treat your seminal vesicles – these are two glands that sit behind your prostate and bladder that produce some of the fluid in semen. Radiotherapy aims to treat all the cancer cells, including any that have spread to the area just outside the prostate. The treatment itself is painless and can't be seen, but it can cause side effects (see page 9).

You may have radiotherapy to a wider area, including the nearby lymph nodes and bones within your pelvis around the prostate, if there is a risk that the cancer could spread there. Lymph nodes are part of your immune system and are found throughout your body. The lymph nodes in your pelvic area are a common place for prostate cancer to spread to. But if you do have radiotherapy to a larger area, you will be more likely to get side effects.

Talk to your doctor, nurse or therapeutic radiographer about your treatment and possible side effects.

Who can have radiotherapy?

External beam radiotherapy can be suitable for you if:

- your cancer hasn't spread outside the prostate (localised prostate cancer)
- your cancer has spread to the area just outside the prostate (locally advanced prostate cancer)
- your cancer has come back after treatment that aimed to cure it (recurrent prostate cancer).

If your prostate cancer is localised or locally advanced, or if you have recurrent prostate cancer, radiotherapy will aim to get rid of the cancer completely.

If you have some types of inflammatory bowel disease (IBD), external beam radiotherapy may not be suitable for you as it could make your bowel problems worse. Talk to your doctor or nurse to discuss if radiotherapy is suitable for you.

Radiotherapy for localised and locally advanced prostate cancer

If you're having radiotherapy for localised or locally advanced prostate cancer you might also have hormone therapy for six months before, during or after treatment. Hormone therapy can shrink the prostate and the cancer inside it, and make the treatment more effective. Your doctor will let you know if you need hormone therapy and for how long you should have it. If there is a risk of the cancer spreading outside your prostate, you may continue to have hormone therapy for up to three years after radiotherapy.



Read more in our fact sheet, **Hormone therapy**.

If there's a risk that your cancer could spread outside the prostate, you might also be offered another type of radiotherapy called brachytherapy alongside your external beam radiotherapy. Brachytherapy gives a high dose of radiation directly into your prostate through the perineum, which is the area between your testicles and back passage. Brachytherapy can be given either before or after treatment with external beam radiotherapy. Read more in our fact sheet, **Locally advanced prostate cancer**.



Having both types of radiotherapy together means you will have external beam radiotherapy to the prostate and the area just outside it, as well as an extra dose of radiotherapy to the prostate itself. This can help make treatment more effective, but might also mean you're more likely to get side effects. Read more in our fact sheets, **Permanent seed brachytherapy** and **High dose-rate brachytherapy**.



Read more in our fact sheets, **Permanent seed brachytherapy** and **High dose-rate brachytherapy**.

Adjuvant radiotherapy

Some men may also be offered radiotherapy to the prostate bed (the area where your prostate used to be) very soon after having surgery to remove prostate and seminal vesicles (radical prostatectomy). This usually happens if there's a chance that their cancer may come back or wasn't completely removed during the operation. This is called adjuvant radiotherapy. It is generally given within the first few months of surgery, but your doctor may suggest waiting until any urinary problems have improved.

Salvage radiotherapy

Salvage radiotherapy may be offered to men who've had surgery (radical prostatectomy). It may be an option if the level of PSA (prostate specific antigen) in your blood doesn't drop below 0.1 ng/ml in the first four to eight weeks after your surgery, and continues to rise above 0.2 ng/ml.

You might also have salvage radiotherapy if your cancer comes back after high-intensity focused ultrasound (HIFU) or cryotherapy.



For more information on treating cancer that has come back, read our booklet, **If your prostate cancer comes back: A guide to treatment and support.**

Other treatment options

Other treatment options for men with localised and locally advanced prostate cancer include:

- active surveillance
- watchful waiting
- surgery (radical prostatectomy)
- brachytherapy (either permanent seed or high dose-rate)
- hormone therapy
- docetaxel chemotherapy
- high-intensity focused ultrasound (HIFU) or cryotherapy, but these are less common and available only as part of a clinical trial.

You can read about all these treatments in our other fact sheets.

If you have advanced prostate cancer

If your cancer has spread to other parts of the body (advanced or metastatic prostate cancer), external beam radiotherapy won't be able to cure your cancer. But you may be offered radiotherapy to areas where the cancer has spread, to help with symptoms such as bone pain. And new research has found that giving radiotherapy to the prostate itself can help some men who've just been diagnosed with advanced prostate cancer to live longer. Read more in our fact sheet,

Radiotherapy for advanced prostate cancer.



Unsure about your diagnosis and treatment options?

If you have any questions, ask your doctor or your nurse at the hospital. They can talk you through your test results and your treatment options. Make sure you have all the information you need. You can also speak to our Specialist Nurses.



Getting support

If you need support or someone to talk to before, during or after your treatment, there is support available. See page 15 for more information.

What types of radiotherapy are there?

There are different types of external beam radiotherapy used to treat prostate cancer. Ask your doctor, nurse or therapeutic radiographer which type of radiotherapy you are being offered, and for how long.

Intensity modulated radiotherapy (IMRT)

This is the most common type of external beam radiotherapy in the UK. An advanced computer programme uses the scans from your radiotherapy planning session to map the location of your prostate and the organs near it to work out the precise radiation dose and create a plan for your radiotherapy treatment.

The radiotherapy machine (called a linear accelerator or Linac) gives out beams of radiation that match the shape of the area to be treated as closely as possible. This helps to avoid damaging the healthy tissue around it, reducing the risk of side effects. It also allows the treatment area to get the right doses of radiotherapy to get rid of the cancer. Most radiotherapy centres use a type of IMRT technique called VMAT (Volumetric Arc Therapy). It is also sometimes called RapidArc.

Stereotactic radiotherapy

Stereotactic radiotherapy, also known as stereotactic ablative radiotherapy (SABR), is another type of external beam radiotherapy that

is offered in some hospitals. SABR gives a much higher dose of radiation to the treatment area at each treatment session compared to IMRT, but a lower dose overall. You will have fewer treatment sessions with this technique. It is a very precise treatment that can be delivered on a standard Linac machine.

Stereotactic radiotherapy can also be delivered on different machines. Cyberknife® is a specially designed Linac machine that delivers SABR. Your therapeutic radiographer can tell you which machine they will use for your treatment. SABR is newer than other types of radiotherapy, so we don't yet know how well it works compared to other treatments for prostate cancer. Speak to your doctor, nurse, or therapeutic radiographer for more information.

Proton beam therapy

You might have heard of a type of radiotherapy called proton beam therapy. This uses beams of tiny particles called protons to target and kill cancer cells. It's mainly used to treat children and adults with very rare and complex types of cancer. Proton beam therapy isn't used to treat prostate cancer in the UK. This is because standard radiotherapy works just as well as, or better than proton beam therapy for prostate cancer. For more information on proton beam therapy visit the NHS website.

Clinical trials

A clinical trial is a type of medical research that aims to find new and improved ways of preventing, diagnosing, treating, and managing illnesses. There are clinical trials looking into the best ways of using radiotherapy to treat prostate cancer.

You can ask your doctor or nurse if there are any clinical trials you could take part in, or speak to our Specialist Nurses. You can also find details of some clinical trials for prostate cancer at www.cancerresearchuk.org/trials

Read more on our website. Visit, prostatecanceruk.org/clinical-trials

What are the advantages and disadvantages of external beam radiotherapy?

What may be important for one person might not be so important for someone else. If you're offered external beam radiotherapy, speak to your doctor, nurse, or therapeutic radiographer before deciding whether to have it. They can tell you about any other treatment options and help you decide if radiotherapy is right for you. There's a list of questions on page 16 that you might find helpful.

Advantages

- If your cancer is localised or locally advanced, radiotherapy will aim to get rid of the cancer completely.
- Most men can carry on with many of their normal activities while having treatment, including going to work and driving.
- Radiotherapy can be an option even if you're not fit or well enough for surgery.
- Radiotherapy is painless, but you might find the treatment position slightly uncomfortable.
- The treatment itself only lasts around 10 minutes, including the time it takes to get you into position. But you'll probably need to be at the hospital for up to couple of hours each day to prepare for your treatment (see page 5). You don't need to stay in hospital overnight.

Disadvantages

- You may need to go to a specialist hospital for treatment five days a week for a few weeks. This might be difficult if you need to travel far.
- Your bladder may need to be full, and your bowel may need to be empty during each treatment session. You may be given medicine to help empty your bowel each day (see page 6) and it could take a while to work. Some men may find this process difficult and inconvenient.



- Radiotherapy can cause side effects such as bowel, urinary and erection problems, as well as tiredness and fatigue. But there are usually treatments and ways to help manage these.
- There is a small increase in the risk of getting other cancers after radiotherapy. It is not very common.
- It may be some time before you know whether the treatment has worked.
- If you have radiotherapy as your first treatment and your cancer comes back or spreads, it might not be possible to have surgery afterwards. This is because the radiotherapy may have damaged the prostate and surrounding tissues, making it harder to remove the prostate and increasing the risk of side effects.



I was able to continue working throughout my treatment, although I got tired quickly. I had some side effects but nothing I couldn't cope with.

A personal experience

Having radiotherapy if you're obese

Each treatment session may take longer than usual if you're overweight. This is because it may be harder to get you into the right position on the treatment bed. The machine may also need to be on for longer, so that the right dose of radiation reaches the prostate.

Some studies suggest that side effects of radiotherapy can also be worse for men who are very overweight. For information about having a healthy lifestyle, and to find out if you're a healthy weight, read our fact sheet,

Diet and physical activity for men with prostate cancer.



What does treatment involve?

You will have your treatment at a hospital radiotherapy department. Before you start your treatment, you'll see a health professional who specialises in treating cancer with radiotherapy. These can include a specialist doctor known as a clinical oncologist, or a consultant therapeutic radiographer who has had additional training and specialises in prostate radiotherapy. You may also see the cancer nurse at the hospital. They'll talk to you about your treatment options, including side effects, and ask for your consent for your radiotherapy treatment.

Before your treatment

Prostate radiotherapy preparation

You will need to prepare your bladder and bowel before the CT planning scan (see page 6) and before every radiotherapy treatment. The therapeutic radiographers get you to do this preparation because the prostate sits very close to your bladder, rectum and bowel. So, the position of your prostate can change depending on the size of your bladder and rectum. If the size of the bladder and rectum change between your CT scan and your treatment sessions, it could mean the prostate is in a different position. This may affect the accuracy of the treatment and increase your risk of getting side effects.

Your therapeutic radiographer may ask you to have a comfortably full bladder and empty rectum so that the radiotherapy is aimed at your prostate, and that the surrounding areas get as little radiation as possible.

Before you have your CT scan and radiotherapy treatment, you will need to be well hydrated. You should drink about two litres (about four pints) of fluid throughout the day few days before your planning CT scan and throughout your treatment. This could be water or diluted squash. Limit fruit juice, fizzy drinks or drinks that contain alcohol or caffeine (like tea or coffee), as these can give you wind or irritate the bladder and make you urinate (pee) more often.

Some foods can make your rectum bigger or fill it up with gas. There are changes you can make to your diet to stop this.

- Reduce the fibre in your diet – but make sure you don't cut it completely as it can make you constipated.
- Cut down food and drink that make you gassy. These include fizzy drinks, beans and pulses, spicy foods, and green leafy vegetables such as broccoli, cabbage and sprouts.

Every radiotherapy department does things slightly differently so use this as a general guide. Your therapeutic radiographer will go through the preparation with you before you have your CT planning scan, and your first radiotherapy treatment. If the preparation isn't done properly, it can cause delays in your treatment. Speak to the radiotherapy team if you are unsure about any part of the preparation.

Radiotherapy planning scan

You'll have a CT scan two or three weeks before you start your treatment.

Before you have your scan, the therapeutic radiographers will ask you to complete the radiotherapy preparation (see page 5). Some hospitals will give you a micro-enema, which is a laxative that helps to empty your rectum. You may be asked to empty your bladder before your scan and then drink some water. You will then wait between 30 and 45 minutes for your bladder to fill up. Your radiotherapy team will explain this to you at your appointment. You will be taken into the CT scanner and lie down on the scanner couch. You may also have an injection of contrast dye if you are to have treatment to your lymph nodes. Your therapeutic radiographer will explain this fully if its applicable to you.

They will then take a scan that shows the cancer and area around it. This is only used by your health professional to plan your treatment, so you won't be given any results from the scan.

After the scan, your therapeutic radiographer will make three very small permanent marks (tattoos) on your skin. These will help to get you into the same position when you go for each of your treatments. It will feel like a pin prick, and the tattoos will be the size of a freckle.

At some radiotherapy departments, you may have three or four gold seeds, called fiducial markers, put inside your prostate. These are about the size of a grain of rice. An ultrasound probe is put into your back passage (rectum) to see your prostate. Hollow needles are then put into your prostate through your perineum (the area of skin between your scrotum and anus), and the seeds are passed through to your prostate. The seeds show up on X-ray images and help the therapeutic radiographer see the exact position of the prostate each day.

Some men find having scans and treatments stressful. If you are anxious about these, speak to your doctor or therapeutic radiographer. They will take the time to go through ways that will help you cope. They may be able to help by playing relaxing music in the room or talk to you during your scan or treatment to keep you distracted. Or you may be able to have medication to help you relax.

It might help to wear clothing and shoes that are easy to take off and put on, such as slip-on shoes and trousers with an elastic waist, as you will have to do this for your CT planning scan and treatment sessions.

Anti-oxidants and radiotherapy

Talk to your doctor or nurse if you take anti-oxidant supplements. Some research suggests that anti-oxidants might protect the cancer cells and stop radiotherapy working as well. But the evidence for this isn't very strong and we need more research to understand the possible risks.

Using a rectal spacer to protect your back passage

Your doctor may suggest using a rectal spacer to help protect the inside of your back passage from radiation damage. The spacer is placed between your prostate and your back passage. This means that less radiation reaches your back passage, which may help to lower your risk of bowel problems during or after your treatment.

Rectal spacers are still new and aren't very common yet, so they might not be available at your hospital. Ask your doctor, nurse or therapeutic radiographer for more information about rectal spacers, their side effects and other ways to manage bowel problems.

During your treatment

You will usually have one treatment (known as a session or fraction) at the hospital five days a week, with a rest over the weekend. You can go home after each treatment.

If you have localised prostate cancer, the course of radiotherapy usually involves 20 treatment sessions over four weeks. You might hear this called hypo-fractionated radiotherapy.

At some hospitals, you'll have 37 sessions over seven or eight weeks instead. If you have 37 sessions, you'll receive a slightly larger overall dose of radiotherapy – but the dose you receive at each session will be lower than if you have 20 sessions.

Studies have shown that having fewer treatment sessions over four weeks works just as well for men with localised prostate cancer as having more sessions over a longer time. The risk of side effects is also similar, and men usually find a shorter course of radiotherapy more convenient, as it involves fewer hospital visits.

If you were offered SABR, you will have as few as five sessions spread over one or two weeks.

You will have to follow the preparation before each treatment session (see page 5).

Your therapeutic radiographer will explain the treatment process and your radiotherapy preparation instructions. Once you are ready, your therapeutic radiographer will help you get into the exact same position as you were in at your planning scan. They'll also use the permanent marks made on your body during the CT scan. This will help to make sure that the radiotherapy treatment targets the same area each time. You'll have to keep very still while they get you in position. The therapeutic radiographers will then leave the room to give you the treatment. They can see you all the time and can come into the room if you need them.

The therapeutic radiographers will first start by taking a scan or X-rays to make sure the whole treatment area is covered, and that the radiotherapy targets the same area as in your planning scan. The treatment then starts, and the machine may move around your body. It doesn't touch you and you won't feel or see anything. The machine may make a buzzing sound as it works. You'll need to keep very still, but the treatment only takes around 10 minutes, including the time it takes to get you into position.

You may also hear about image-guided radiotherapy (IGRT). This is used as part of all radiotherapy treatments. Taking images of the treatment area before each treatment allows your therapeutic radiographer to make small changes to the area that is treated, in case the prostate has moved slightly since your last treatment session. This makes sure the surrounding healthy tissue gets as little radiation as possible. IGRT also makes sure the whole treatment area is treated.

It's safe for you to be around other people, including children and pregnant women, during your course of radiotherapy. The radiation doesn't stay in your body, so you won't give off any radiation.

Radiotherapy affects each person differently, but most people are able to carry on with their normal day-to-day activities. You may be fine to continue to work while having radiotherapy, or

you may find it tiring and need time off work. If you have any questions, speak to your doctor, your nurse or therapeutic radiographer, or call our Specialist Nurses.



Cardiac devices

If you have a cardiac device, such as pacemaker or implantable cardioverter defibrillator (ICD), your radiotherapy planning scan, treatment and follow up appointments might be a bit different. This is because there is a small risk these will affect your cardiac device. Each hospital does things slightly differently so it's important to know about your device and ask your doctor, nurse or therapeutic radiographer for more information.

What happens next?

After you've finished your radiotherapy, you will have regular check-ups to monitor your progress. This is often called follow-up.

The aim is to:

- check how your cancer has responded to treatment
- help you deal with any side effects of treatment
- give you a chance to raise any concerns or ask any questions.

Your follow-up appointments will usually start two or three months after treatment. Before your follow-up appointment you will usually need a PSA blood test (see below). You will then have PSA tests at least every six months in the first two years. After two years, you may have follow-up appointments less often. Each hospital will do things slightly differently, so ask your doctor or nurse for more details about how often you will have follow-up appointments.

Taking control of your health after radiotherapy

At some hospitals, you may have fewer follow-up appointments, and be encouraged to take greater control of your own health and wellbeing. You might hear this called supported self-management.

Instead of having regular appointments at the hospital, you may talk to your doctor or nurse over the telephone. You'll still have regular PSA blood tests to check how your cancer has responded to treatment (see below). But your GP may give you the results over the phone or in a letter. Men often prefer this type of follow-up, as it means you can avoid going to hospital appointments when you're feeling well and don't have any concerns.

Your doctor, nurse or therapeutic radiographer will give you information about the possible side effects of your treatment and any symptoms to look out for. They will also give you details of who to call if you have any concerns about your treatment and its side effects.

You, or your doctor or nurse, can arrange an appointment at any point if you have any questions or concerns.

PSA test

The PSA test is a blood test that measures the amount of a protein called prostate specific antigen (PSA) in your blood. You will usually have a PSA test a week or two before each follow-up appointment, so the results are available at your check-up. This can often be done at your GP surgery. PSA tests are a very effective way of checking how well your treatment has worked.

After treatment, your PSA level should start to drop. Your PSA level won't fall to zero as your healthy prostate cells will continue to produce some PSA. Every man is different, and your medical team will monitor your PSA level closely.

How quickly your PSA level drops, and how low it falls, will depend on whether you had hormone therapy at the same time as radiotherapy. If you had radiotherapy on its own, it may take 18 months to 2 years for your PSA level to fall to its lowest level (nadir).

Your PSA level may rise after your treatment is finished, and then fall again. This is called 'PSA bounce'. It could happen up to three years after treatment. It is normal, and doesn't mean your cancer has come back or that you need more treatment.

If your PSA level consistently rises, particularly in a short amount of time, this could be a sign that your cancer has come back. If this happens, your doctor will talk to you about further tests and treatment options if you need them.

 Read more in our booklet, **Follow-up after prostate cancer treatment: What happens next?**

Treatment options after radiotherapy

If your cancer does come back, there are further treatments available. You may be offered hormone therapy to control your cancer, or you may be offered another treatment that aims to get rid of your cancer.

Treatments that aim to get rid of cancer that has come back are called salvage treatments. After radiotherapy these may include:

- surgery
- brachytherapy
- hormone therapy
- more external beam radiotherapy
- high-intensity focused ultrasound (HIFU) or cryotherapy, but these are less common and available only as part of a clinical trial.

There is no standard or best treatment after radiotherapy – your treatment options will depend on you and your cancer. For example, surgery can be difficult after radiotherapy because radiotherapy changes the prostate tissue and makes it harder for a surgeon to remove the prostate.

You may be more likely to get side effects if you have a second treatment. More research is also needed to look at how well treatments after radiotherapy work in the long term.

Ask your doctor which treatments might be suitable for you. Read more in our booklet,

 **If your prostate cancer comes back: A guide to treatment and support.**

What are the side effects?

Like all treatments for prostate cancer, radiotherapy can cause side effects. These will affect each man differently, and you might not get all the possible side effects. Side effects happen when the healthy tissue near the prostate is damaged by radiotherapy. Most healthy cells recover so side effects may only last a few weeks or months.

Some side effects can start months or years after treatment. These can sometimes become long-term problems. Sometimes long-term or late side effects after radiotherapy treatment are called pelvic radiation disease. For more information about pelvic radiation disease, visit www.prda.org.uk

Before you start treatment, talk to your doctor, nurse or therapeutic radiographer about the side effects. Knowing what to expect can help you deal with them.

If you have hormone therapy as well as radiotherapy, you may also get side effects from the hormone therapy. Read more in our booklet,

 **Living with hormone therapy: A guide for men with prostate cancer.**

If you're having radiotherapy as a second treatment, and you still have side effects from your first treatment, then radiotherapy can make those side effects worse or last longer.

The most common side effects of radiotherapy are described here.

Short-term side effects

Urinary problems

Radiotherapy can irritate the lining of the bladder and the urethra, which is the tube men urinate (pee) and ejaculate through. It can also cause swelling in the prostate. This can cause urinary problems, such as:

- needing to urinate often, including at night
- a sudden urge to empty your bladder
- reduced flow
- a burning feeling when you urinate
- difficulty urinating (urine retention)
- blood in your urine.

You might also leak urine (urinary incontinence) after radiotherapy, but this is rare. It may be more likely if you've previously had an operation called a transurethral resection of the prostate (TURP) for an enlarged prostate.

Urinary problems tend to start midway through your treatment and may begin to improve several weeks after treatment finishes. But this is different for everyone. Some men may continue to have side effects for longer, while others may not get any side effects at all or have side effects that improve more quickly. If you get any urinary problems, tell your doctor, nurse or therapeutic radiographer. There are treatments to manage them, as well as things you can do to help yourself. Read more in our fact sheet, **Urinary problems after prostate cancer treatment**.

Your medical team may suggest pelvic floor exercises that could help with your urinary problems. You can usually do these at home.



By week four it was getting harder to pee and a bit uncomfortable. The specialist nurse got me treatment to help.

[A personal experience](#)

Bowel problems

Your bowel and back passage are close to the prostate. Radiotherapy can irritate the lining of the bowel and rectum (called proctitis), which can cause bowel problems. Before you start radiotherapy, tell your doctor if you've had any bowel problems in the past as this could mean you're more likely to get bowel problems again.

Symptoms vary from man to man, and some men only notice a slight change. Common bowel problems can include:

- passing more wind than usual, which may sometimes be wet
- loose or watery bowel movements (diarrhoea)
- needing to empty your bowels more often, or having to rush to the toilet
- leaking a clear, jelly-like mucus from your back passage
- feeling an urge to empty your bowels, but then not being able to
- a feeling that your bowels haven't emptied properly
- pain in your abdomen (stomach area) or back passage
- bleeding from your back passage – this isn't usually anything to worry about, but let your doctor, nurse or therapeutic radiographer know if it happens
- leaking from your back passage (faecal incontinence) – this is very rare.

Bowel problems usually start during or shortly after your treatment and usually begin to settle down several weeks after finishing treatment. Again, this is different for everyone. Some men may find that some of their side effects last longer, while others may not get any side effects at all, or have side effects that improve more quickly.

Tell your doctor, nurse or therapeutic radiographer about any changes in your bowel habits. There are often things you can do to help yourself and simple treatments available.

If you have anal sex, then bowel problems after radiotherapy may affect your sex life. You can continue giving anal sex to your partner. But if you receive anal sex, your doctor, nurse

or therapeutic radiographer may suggest you avoid having anal sex while you are having radiotherapy, and for up to two months afterwards. This is to make sure any bowel problems or sensitivity have settled before receiving anal sex, and will be different for everyone. Find out more about how side effects of prostate cancer treatment may affect your sex life in our booklet, **Prostate cancer tests and treatment: A guide for gay and bisexual men.**



Screening for bowel cancer

If you're invited to take part in the NHS bowel screening programme soon after having radiotherapy, the test may pick up some blood in your bowel movements, even if you can't see any blood yourself. Your doctor, nurse or therapeutic radiographer may suggest that you delay your NHS bowel screening test for a few months if you've recently had radiotherapy. This will help to make sure that you don't get incorrect results.

It's normal to have a tiny amount of blood in your bowel movements while having radiotherapy and shouldn't be anything to worry about. But if you're having radiotherapy and you do notice blood you should always let your therapeutic radiographer, or the doctor know.



I had no side effects for the first few days but towards the end of treatment it became a case of when I needed to go, I had to go straight away.

A personal experience

Travelling with urinary or bowel problems

Not all men get urinary or bowel problems after radiotherapy. But if you do, it shouldn't stop you from travelling. The following tips may help you plan ahead and feel more prepared for your trip.

- Try to book an aisle seat close to toilets and find out where the nearest public toilets are.
- If you use pads, make sure you pack enough for your trip.
- Keep a spare change of clothes and an empty plastic bag with you to store wet clothes.
- Wear dark trousers if you're worried about leaks.
- Carry some hand gel and a pack of wet wipes or tissues when travelling – supermarkets sell these in small sizes that are easy to carry.
- Use our **Urgent toilet card** to help you get to a toilet quickly. You can also buy an international version from www.theibsnetwork.org/cant-wait-card
- You can buy a radar toilet key for locked public toilets on shop.disabilityrightsuk.org/products/radar-key

Find out more about travelling with prostate cancer in our fact sheet, **Travel and prostate cancer.**



Tiredness and fatigue

The effects of radiation on your body can leave you feeling very tired, especially towards the end of your treatment. Fatigue is extreme tiredness that can affect your everyday life. It can affect your energy levels, your motivation and your emotions – which can be hard to cope with.

This will usually start to improve several weeks after you finish radiotherapy, but for some men it could take up to a year. If you're having hormone therapy as well as radiotherapy then this may also make you feel tired. You may feel very tired until you stop having hormone therapy.

There are things you can do to help manage fatigue. For example, planning your day and making the most of the energy you have. Try to stay active with some gentle exercise – start with a short and slow walk. Light exercise can lift your mood and help you to feel more energised and awake. Always talk to someone in your medical team before starting a new exercise plan.

Some men continue to work during their treatment. If you're dealing with fatigue, talk to your manager about different options, such as changing your working hours or working from home. It may be helpful to write down some things that you think could help. Share your ideas with your manager and work out a plan together. They might have some helpful suggestions as well.

If you're worried about talking to your employer, remember that everyone has their own worries and health problems – most employers will be understanding and want to support you during your treatment. But if you think your employer is treating you unfairly, try talking to the human resource team at your workplace or contact Citizens Advice for more information.



Read more about ways to manage fatigue in our fact sheet, **Fatigue and prostate cancer**.



One invaluable tip was to take a short rest each day when I got home after my treatment.

A personal experience

Problems with ejaculation

You may find ejaculation uncomfortable and notice that you produce less semen during and after treatment. You may also have a 'dry orgasm', where you feel the sensation of orgasm but don't ejaculate. This may feel different to the orgasms you're used to. Some men find this difficult to come to terms with.

Skin irritation and hair loss

During treatment, the skin between your legs and near your back passage may become sore or look a bit like sunburn – but this is very rare. Your therapeutic radiographer will talk to you about how to look after your skin during treatment. Radiotherapy might also make some of your pubic hair fall out. But it usually grows back after treatment.

Long-term or late side effects

Sometimes side effects can develop much later – several months, or even years, after finishing treatment. If this happens, then these side effects can last a long time.

Talk to your doctor or nurse about your own risk of long-term side effects. You might be more likely to get them if:

- you're older
- you have diabetes
- you're very overweight
- you've had bowel or prostate surgery in the past
- you've had bladder, bowel, or erection problems in the past.

Researchers have been looking at whether smoking increases the chance of having long-term bowel and urinary problems after radiotherapy for prostate cancer. At the moment only a small number of studies have been done, so we need more research into this. If you're thinking of stopping smoking, there's lots of information and support available. Visit the NHS website for help on how to stop smoking at www.nhs.uk/smokefree

Urinary problems

If you had urinary problems during treatment, you may be more likely to develop problems later on. These may be similar to the short-term side effects (see page 10).

Radiotherapy can cause the urethra to become narrow over time – this is called a stricture.

This is more likely if you have brachytherapy combined with external beam radiotherapy. If this happens you will find it difficult to urinate.

Symptoms can include:

- feeling that your abdomen (stomach area) is swollen
- feeling that you're not emptying your bladder fully
- a weak flow when you urinate.

Speak to your doctor or nurse if you get any of these symptoms.



Read more in our fact sheet, **Urinary problems after prostate cancer treatment**, or call our Specialist Nurses.



Bowel problems

Although bowel problems often improve once treatment has finished, some men find that changes to their bowel habits last a lot longer.

Bowel problems can develop months or years after treatment and may be similar to the short-term side effects (see page 10). If you had bowel problems during treatment, you may be more likely to develop problems later on.

Try not to be embarrassed to tell your hospital doctor or your GP about any bowel problems. There are treatments that can help. Bowel problems can be common in older men, so it's possible that they're caused by something other than radiotherapy. Your hospital doctor or your GP can arrange tests to find out what's causing the problems, or they may refer you to a bowel specialist.



If you have long-term bowel problems, you might be offered a camera test, like a flexible sigmoidoscopy or a colonoscopy. This is where a narrow tube with a camera on the end is put into your back passage to check for any damage to the bowel.



I didn't have many side effects during treatment, but six months later I had diarrhoea and some bleeding from the back passage.

A personal experience

Erection problems

Radiotherapy can cause problems getting or keeping an erection (erectile dysfunction). Other treatments for prostate cancer such as hormone therapy, other health problems, certain medicines, tiredness and fatigue, and depression or anxiety can all cause erection problems too. And many men with prostate cancer may have had sexual problems before their treatment.

Erectile dysfunction caused by radiotherapy often takes a while to appear and it can be up to two years before you notice any problems. Erection problems can also get worse over time.

There are some changes you can make to your lifestyle, as well as treatments that may help you manage erection problems or sometimes prevent them. For example, your doctor may prescribe regular medication to help with erectile dysfunction after your radiotherapy. These often work best if you start them soon after radiotherapy. Talk to your doctor, nurse or therapeutic radiographer to find out more. Read our booklet, **Prostate cancer and your sex life** for more information about treating erection and other sexual problems, and practical tips to help with your sex life.

Having children

Radiotherapy can damage the cells that make semen and cause you to have a dry orgasm (where you don't ejaculate). You may want to consider storing your sperm before you start radiotherapy, so that you can use it later for fertility treatment – if you want to. Ask your doctor, nurse or therapeutic radiographer about sperm storage.

There is a very small chance that radiotherapy could affect any children you might conceive during treatment. If there is a chance of your partner getting pregnant, you may want to use contraception during radiotherapy and for up to a year after radiotherapy. You can also ask your doctor, nurse or therapeutic radiographer for advice. It is safe for you to have sex with your partner – you won't pass on your cancer or any radiation.

Lymphoedema

If your lymph nodes are treated with radiotherapy, there is a small chance that fluid might build up in your tissues. This is called lymphoedema. It usually affects the legs, but it can affect other areas, including the penis or testicles. It can occur months or even years after treatment. Speak to your doctor nurse or therapeutic radiographer if you start to get any unusual swelling. There are treatments that can help manage the symptoms of lymphoedema – read more on our website.

Hip and bone problems

Radiotherapy can damage the bone cells and the blood supply to the bones near the prostate and the pelvic lymph nodes. This can cause pain, and hip and bone problems later in life. Hormone therapy can also weaken your bones, so you might be slightly more likely to have hip and bone problems if you have both hormone therapy and radiotherapy.

Other cancers

Radiotherapy can damage the cells in the tissues surrounding the prostate. There is a very small chance that this could increase your

risk of bladder or bowel cancer. It would take at least five to ten years after having radiotherapy treatment for a second cancer to appear.



If you're worried about any of these side effects, speak to your doctor, nurse or therapeutic radiographer. You can also call our Specialist Nurses.

Dealing with prostate cancer

Having prostate cancer can change the way you feel about life. You might feel scared, stressed or even angry. There's no 'right' way to feel and everyone reacts differently. There are things you can do to help yourself and people who can help. Your loved ones may also need support – this section might be helpful for them too.

How can I help myself?

- **Look into your treatment options.** Ask your nurse or doctor about any side effects so you know what to expect and how to manage them.
- **Talk to someone.** It could be someone close or someone trained to listen, like a counsellor or your doctor or nurse.
- **Set yourself some goals and things to look forward to.** Even if they're just for the next few weeks or months.
- **Look after yourself.** Learn some techniques to relax and manage stress, like breathing exercises or listening to music.
- **Eat healthily.** It's good for your general health and can help you stay a healthy weight, which may be important for men with prostate cancer. Read our fact sheet, **Diet and physical activity for men with prostate cancer.**
- **Be as active as you can.** Take things at your own pace and don't overdo it. Our fact sheet (see above) has ideas to help you get active.





Visit prostatecanceruk.org/living for more ideas, or read our booklet, **Living with and after prostate cancer: A guide to physical, emotional and practical issues**. You could also contact Macmillan Cancer Support, Maggie's, Penny Brohn UK or your nearest cancer support centre.

Who else can help?

Your medical team

It may be useful to speak to your therapeutic radiographer, nurse, doctor or someone else in your medical team. They can explain your diagnosis, treatment and side effects, listen to your concerns, and put you in touch with other people who can help.



Our Specialist Nurses

Our Specialist Nurses can answer your questions and explain your diagnosis and treatment options. They have time to listen, in confidence, to any concerns you or those close to you have.

Trained counsellors

Many hospitals have counsellors or psychologists who specialise in helping people with cancer. You can also refer yourself for counselling on the NHS website, or you could see a private counsellor.

Our one-to-one support service

Our one-to-one support service is a chance to speak to someone who's been there and understands what you're going through. They can share their experiences and listen to yours. You can discuss whatever's important to you.



Our Specialist Nurses will try to match you with someone with similar experiences.

Our online community

Our free online community is a place to talk about whatever's on your mind – your questions, your ups and your downs. Anyone can ask a question or share an experience.

Support groups

At support groups, men get together to share their experiences of living with prostate cancer. Some groups also hold meetings online. You can ask questions, share worries and know that someone understands what you're going through. Some groups have been set up by local health professionals, others by men themselves. Many also welcome partners, friends and relatives.

Our fatigue support

Fatigue is a common symptom of prostate cancer, and a side effect of some treatments.



Our Specialist Nurses can talk to you in depth about your experience of fatigue, and the impact it's having on your day-to-day life. They can also discuss ways to help you better manage your fatigue, such as behaviour and lifestyle changes.

Our sexual support service



This is a chance for you, or your partner, to talk to one of our Specialist Nurse with an interest in sexual problems after treatment for prostate cancer. They can talk to you about the impact of treatment on your sex life and relationships, and discuss possible treatments or ways to deal with these changes.

To find out more about any of the above, visit prostatecanceruk.org/get-support or call our Specialist Nurses on 0800 074 8383.



I am now coping with the fatigue by identifying things I really want to do, and then being determined to do them.

A personal experience

Questions to ask your doctor, nurse or radiographer



You may find it helpful to keep a note of any questions you have to take to your next appointment.

What type of radiotherapy will I have?

How many sessions will I need?

What other treatment options do I have?

What are the possible side effects and how long will they last?

What treatments are available to manage the possible side effects from radiotherapy?

Will I have hormone therapy and will this carry on after radiotherapy?

How and when will I know if radiotherapy has worked?

If the radiotherapy doesn't work, which other treatments can I have?

Who should I contact if I have any questions?

What support is there to help manage long-term side effects?

More information

Bladder and Bowel UK

www.bbuk.org.uk

Telephone: 0161 214 4591

Information and advice about bladder and bowel problems.

British Association for Counselling & Psychotherapy

www.bacp.co.uk

Telephone: 01455 883 300

Information about counselling and details of therapists in your area.

Cancer Research UK

www.cancerresearchuk.org

Telephone: 0808 800 4040

Information about prostate cancer and clinical trials.

Continence Product Advisor

www.continenceproductadvisor.org

Unbiased information on products for continence problems, written by health professionals.

Lymphoedema Support Network

www.lymphoedema.org

Telephone: 020 7351 4480

Information and support for people with lymphoedema, including details of support groups.

Macmillan Cancer Support

www.macmillan.org.uk

Telephone: 0808 808 0000

Practical, financial and emotional support for people with cancer, their family and friends.

Maggie's

www.maggies.org

Telephone: 0300 123 1801

Drop-in centres for cancer information and support, and online support groups.

NHS Smokefree

www.nhs.uk/smokefree

Telephone: 0300 123 1044

Information and support to help people stop smoking.

Pelvic Radiation Disease Association

www.prda.org.uk

Support for people with long-term side effects of radiotherapy.

Tackle prostate cancer

www.tackleprostate.org

Telephone: 0800 035 5302

Local support for patients and families.

About us

Prostate Cancer UK has a simple ambition: to stop men dying from prostate cancer – by driving improvements in prevention, diagnosis, treatment and support.

Download and order our fact sheets and booklets from our website at **prostatecanceruk.org/publications** or call us on **0800 074 8383**.

At Prostate Cancer UK, we take great care to provide up-to-date, unbiased and accurate facts about prostate cancer. We hope these will add to the medical advice you have had and help you to make decisions. Our services are not intended to replace advice from your doctor.

References to sources of information used in the production of this fact sheet are available at **prostatecanceruk.org**

This publication was written and edited by our Health Information team.

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- Our Specialist Nurses
- Our volunteers.

Tell us what you think

If you have any comments about our publications, you can email:

yourfeedback@prostatecanceruk.org



Speak to our Specialist Nurses

0800 074 8383*

prostatecanceruk.org

Donate today – help others like you

Did you find this information useful? Would you like to help others in your situation access the facts they need? Every year, over 52,000 men face a prostate cancer diagnosis. Thanks to our generous supporters, we offer information free to all who need it. If you would like to help us continue this service, please consider making a donation. Your gift could fund the following services:

- £10 could buy a Tool Kit – a set of fact sheets, tailored to the needs of each man with vital information on diagnosis, treatment and lifestyle.
- £25 could give a man diagnosed with a prostate problem unlimited time to talk over treatment options with one of our Specialist Nurses.

To make a donation of any amount, please call us on **0800 082 1616**, visit prostatecanceruk.org/donate or text **PROSTATE** to **70004**[†].

There are many other ways to support us. For more details please visit prostatecanceruk.org/get-involved

[†] You can donate up to £10 via SMS and we will receive 100% of your donation. Texts are charged at your standard rate. For full terms and conditions and more information, please visit prostatecanceruk.org/terms



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Patient Information Forum

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Call our Specialist Nurses from Monday to Friday 9am - 5pm, Wednesday 10am - 5pm

* Calls are recorded for training purposes only.
Confidentiality is maintained between callers and Prostate Cancer UK.

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