External beam radiotherapy

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This fact sheet is for men who have 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 given to some men whose cancer has spread to other parts of the body (advanced prostate cancer). It may be used to help control the cancer or, more commonly, to relieve symptoms. 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 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 high-energy X-ray beams targeted at the prostate 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 the cancer cells, but healthy cells can repair themselves and recover more easily.
Radiotherapy treats the whole prostate. It aims to treat all the cancer cells, including any that have spread to the area just outside the prostate. The treatment itself is painless but it can cause side effects that may cause you problems (see page 9).

You may have radiotherapy to a wider area, including the nearby lymph nodes, if there is a risk that the cancer has 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. If you do have radiotherapy to a wider area, you will be more likely to get side effects.

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

Who can have radiotherapy?
External beam radiotherapy can be suitable for men with:
• cancer that hasn’t spread outside the prostate (localised prostate cancer)
• cancer that has spread to the area just outside the prostate (locally advanced prostate cancer)
• cancer that 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 Crohn’s disease or ulcerative colitis, radiotherapy probably won’t be suitable for you. This is because it could make your bowel problems worse. Talk to your doctor or nurse about which treatments are suitable for you.

Radiotherapy for localised prostate cancer
If you’re having radiotherapy for localised prostate cancer you might also have hormone therapy for a few months before and during treatment. Hormone therapy can shrink the prostate and the cancer inside it, making the cancer easier to treat. You might have hormone therapy for a total of six months before, during or after external beam radiotherapy. 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 a type of internal radiotherapy called high dose-rate (HDR) brachytherapy alongside your external beam radiotherapy. But this isn’t very common. HDR brachytherapy gives a high dose of radiation directly into your prostate through the perineum, which is the area between your testicles and back passage.

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 sheet, High dose-rate brachytherapy.

Adjuvant radiotherapy
Some men may also be offered radiotherapy very soon after having surgery if there’s a chance that their cancer might come back or wasn’t completely removed during the operation. This is called adjuvant radiotherapy. It may be offered to you if the level of PSA (prostate specific antigen) in your blood doesn’t drop below 0.1 ng/ml in the first six to eight weeks after your surgery. Or it may be offered if tests show that some cancer cells were left behind during surgery.
Adjuvant radiotherapy usually starts in the first six months after having surgery, but your doctor may suggest waiting until any urinary problems have improved.

Other treatment options
Other treatment options for men with localised prostate cancer include:
- active surveillance
- watchful waiting
- surgery to remove the prostate (radical prostatectomy)
- brachytherapy (either permanent seed or high dose-rate)
- high-intensity focused ultrasound (HIFU) or cryotherapy, but these are less common.

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

Radiotherapy for locally advanced prostate cancer
External beam radiotherapy combined with hormone therapy is the standard treatment for men with locally advanced prostate cancer. You may be offered hormone therapy for up to six months before radiotherapy. And you may continue to have hormone therapy during your radiotherapy, and for up to three years after it’s finished. Your doctor might also offer you high dose-rate brachytherapy alongside your radiotherapy and hormone therapy.

Read more in our fact sheet, Locally advanced prostate cancer.

Other treatment options
Other treatment options for men with locally advanced prostate cancer include:
- surgery (radical prostatectomy)
- hormone therapy alone
- watchful waiting.

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

Radiotherapy after other treatments for prostate cancer
Radiotherapy can be an option if your cancer has come back after surgery (called salvage or second-line radiotherapy). It may also be possible after HIFU or cryotherapy. Read our booklet, If your prostate cancer comes back: A guide to treatment and support for more information on treating cancer that has come back.

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.

Making a decision about which treatment to have is difficult, there’s pros and cons to them all. I felt a big sense of relief after I’d made my choice.

A personal experience
Deciding whether to have treatment for slow-growing, localised prostate cancer

If tests show your cancer is likely to grow slowly (low risk prostate cancer), you may be offered active surveillance instead of having treatment. This is a way of monitoring slow-growing, localised prostate cancer with regular tests, instead of having treatment straight away.

The aim is to avoid or delay the side effects of treatment. If there are signs the cancer may be growing, you’ll be offered treatment that aims to get rid of the cancer.

If you go on active surveillance, there’s a very small chance that your cancer could spread before being picked up. But as you’ll have regular tests to monitor the cancer, the risk of this happening is very low.

Research involving men with low risk localised prostate cancer has shown that men who go on active surveillance have the same chances of living for 10 years or more as men who choose surgery or external beam radiotherapy.

It’s important to think about this when deciding whether to have treatment straight away or go on active surveillance. Read more in our fact sheets, Localised prostate cancer and Active surveillance.

Unsure about your diagnosis and treatment options?

If you have any questions, ask your doctor, nurse or radiographer. 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 14 for more information.

What types of radiotherapy are there?

There are two common types of external beam radiotherapy:

- intensity-modulated radiotherapy (IMRT)
- 3-dimensional conformal radiotherapy (3D-CRT).

You may also hear about image guided radiotherapy (IGRT). This is part of all radiotherapy treatments. Taking images of the prostate before each treatment allows your radiographer to make small changes to the area that is going to be 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. It also makes sure the whole prostate is treated.

Intensity-modulated radiotherapy (IMRT)

This is the most common type of external beam radiotherapy in the UK. A computer uses the scans from your radiotherapy planning session (see page 6) to map the location, size and shape of your prostate. The radiotherapy machine gives beams of radiation that match the shape of the prostate as closely as possible. This helps to avoid damaging the healthy tissue around it, reducing the risk of side effects.

The strength of the radiation can be controlled so that different areas get a different dose. This means a higher dose of radiation can be given to the prostate without causing too much damage to surrounding tissue.

3D conformal radiotherapy (3D-CRT)

As with IMRT, the radiation beams are mapped to the size, shape and position of the prostate. But the strength of the radiation can’t be controlled in 3D-CRT, so all areas are treated with the same dose.

IMRT is now the standard type of external beam radiotherapy for prostate cancer in most hospitals, but some still use 3D-CRT. They are both effective ways of treating prostate cancer. Ask your doctor or radiographer which type of radiotherapy you’re being offered.
Other types of radiotherapy

Stereotactic radiotherapy
Stereotactic radiotherapy, also known as stereotactic ablative radiotherapy (SABR), is another type of radiotherapy. It is a very precise treatment which means the cancer itself gets a high dose of radiation, while the surrounding tissue gets less. It may also mean you need fewer treatment sessions. Cyberknife® is an example of stereotactic radiotherapy. It delivers many thin beams of low-dose radiation from different angles that all target the cancer. But it’s newer than other types of radiotherapy, so we don’t yet know how well it works compared to other treatments for prostate cancer.

At the moment, stereotactic radiotherapy for prostate cancer is only available as part of a clinical trial or through private healthcare. Speak to your doctor, nurse or 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 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 www.nhs.uk

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 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.
- Many 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 an hour each day to prepare for your treatment (see page 7). You don’t need to stay in hospital overnight.

Disadvantages
- You will need to go to a specialist hospital for treatment five days a week for a few weeks. This might be difficult if you have to travel far.
- 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 7). This can take a while to work, and some men may find this 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.

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.

To find out about taking part in a clinical trial, ask your doctor or nurse. You can also read more in our fact sheet, A guide to prostate cancer clinical trials, or speak to our Specialist Nurses.
• 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 very overweight
Each treatment session may take longer than usual if you’re very 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. You’ll see a specialist doctor who treats cancer with radiotherapy, known as a clinical oncologist. You may also see a specialist nurse and a specialist radiographer. They’ll talk to you about your treatment plan and ways to manage any side effects.

Before your treatment
Radiotherapy planning session
A week or two before your treatment, you’ll have a planning session. This is to make sure the radiographers know the exact position, size and shape of your prostate. It will help them make sure the radiotherapy is aimed at your prostate and that the surrounding areas get as little radiation as possible.

• You’ll have a CT (computerised tomography) scan, and possibly an MRI (magnetic resonance imaging) scan.

• Your radiographer will make three very small permanent marks (tiny tattoos) on your skin. This will help to get you into the right position when you go for each treatment.

• 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) and the seeds are passed through the probe using a hollow needle. The seeds show up on X-ray images and help the radiographer see the exact position of the prostate each day.

• Your doctor or radiographer may suggest using a rectal spacer to reduce the amount of radiation that reaches your back passage and possibly help lower your risk of bowel problems after treatment (see page 7).

• Your radiographer will let you know how full or empty your bladder and bowel should be during treatment. This helps to make sure your radiographer treats the right area equally each time. They’ll explain how much to drink, and how to make sure your bowel is empty.

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 or radiographer 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.

If your hospital doesn’t use rectal spacers, you may be able to have one through private healthcare, or as part of a clinical trial. Ask your doctor, nurse or radiographer for more information about rectal spacers and other ways to manage bowel problems.

**During your treatment**
You will have one treatment (known as a 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.

Before each treatment session you may be given an enema (liquid medicine) or a suppository (a pellet). These are put inside your back passage and will help make sure your bowel is completely empty. Then your radiographer will help you get into the exact same position you were in at your planning session. They’ll use the marks made on your body as a guide and may also take a scan. This will help to make sure that the radiotherapy treatment targets the same area each time.

The treatment then starts and the machine moves around your body. It doesn’t touch you and you won’t feel anything. 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.

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 man differently, but most men 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, nurse or radiographer, or call our Specialist Nurses.

**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. You will then have appointments every three to six months. After three 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.

Looking after yourself after radiotherapy
At some hospitals, you may not have many follow-up appointments after your treatment 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. Some men 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 or nurse will give you information about the possible side effects of your treatment and any symptoms to look out for, as well as details of who to call if you notice any changes.

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. But it could fall to about 1 ng/ml, although 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. Try not to worry if it doesn’t fall below 1 ng/ml. If you had radiotherapy on its own, it may take 18 months to two years for your PSA level to fall to its lowest level (nadir).

Your PSA level may actually 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.

If your PSA level rises by 2 ng/ml or more above its lowest level, or if it rises for three or four PSA tests in a row, this could be a sign that your cancer has come back. Your doctor will continue to check your PSA level and 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, high-intensity focused ultrasound (HIFU), or cryotherapy. 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. Sometimes bowel, urinary and sexual problems after radiotherapy treatment are called pelvic radiation disease. For more information about pelvic radiation disease visit www.prda.org.uk

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. But some side effects can start months or years after treatment. These can sometimes become long-term problems. Before you start treatment, talk to your doctor, nurse or 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. It may also cause other side effects.

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. This can cause urinary problems, such as:

- a sudden urge to empty your bladder
- 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 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 muscle exercises that could help with your urinary problems. You can usually do these at home. There are also lots of tips on managing urinary problems in our interactive online guide: prostatecanceruk.org/guides

"At first I didn’t have any side effects, but 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 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 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 and are the receptive partner (bottom), then bowel problems after radiotherapy may affect your sex life. You may need to wait until any problems or sensitivity have settled before having anal sex. This will be different for everyone but may take about two months. 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 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 quite common 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 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

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 from time to time – 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 or go online for useful tips in our interactive guide at prostatecanceruk.org/guides. We also have a telephone support service for help managing fatigue (see page 15).

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 and 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 rare. Your 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 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 9).

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. There are also lots of tips for managing urinary problems in our interactive online guide: prostatecanceruk.org/guides

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, such as 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.

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 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. There are also lots of tips in our interactive online guide: prostatecanceruk.org-guides

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 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 over the period you are having radiotherapy and for up to a year after. You can also ask your doctor, nurse or 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 or nurse 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. 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 5 to 10 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 radiographer. You can also call our Specialist Nurses.
Dealing with prostate cancer

Some men say being diagnosed with prostate cancer changes the way they think and feel about life. If you are dealing with prostate cancer, you might feel scared, worried, stressed, helpless or even angry.

At times, lots of men with prostate cancer get these kinds of thoughts and feelings. But there’s no ‘right’ way that you’re supposed to feel, and everyone reacts in their own way.

This section suggests some things you can do to help yourself and people who can help. Families can also find this a difficult time and they may need support and information too. They may want to read our booklet, When you’re close to a man with prostate cancer: A guide for partners and family.

How can I help myself?

Everyone has their own way of dealing with prostate cancer, but you may find some of the following suggestions helpful.

Look into your treatment options

Find out about the different treatments you could have. Bring a list of questions to your doctor or nurse. And ask about any side effects so you know what to expect and how to manage them. This will help you decide what’s right for you.

Talk to someone

Share what you’re thinking – find someone you can talk to. It could be someone close or someone trained to listen, like a counsellor or your doctor or nurse. People involved in your care should be able to answer any questions or concerns you might have.

Set yourself some goals

Set yourself goals and plan things to look forward to – even if they’re just for the next few weeks or months.

Look after yourself

Take time out to look after yourself. When you feel up to it, learn some techniques to manage stress and to relax – like breathing exercises or listening to music.

Eat a healthy, balanced diet

We don’t know for sure whether any specific foods are helpful for men with prostate cancer. But eating well can help you stay a healthy weight, which may be important for men with prostate cancer. It’s also good for your general health and can help you feel more in control. Certain changes to your diet may also help with some side effects of treatment. For more information, read our fact sheet, Diet and physical activity for men with prostate cancer.

Be as active as you can

Keeping active can improve your physical strength and fitness, and can lift your mood. We don’t know for sure if physical activity can help slow the growth of prostate cancer. But it can help you stay a healthy weight, which may help to lower your risk of advanced prostate cancer. Physical activity can also help with some side effects of treatment. Even a small amount can help. Take things at your own pace. Read our fact sheet, Diet and physical activity for men with prostate cancer, to find out more.

I enjoy walking at weekends with my family. It says life is normal and it keeps me physically fit.

A personal experience

Get more ideas about how to look after yourself from Macmillan Cancer Support, Maggie’s Centres, Penny Brohn UK, or your nearest cancer support centre. You can also find more ideas in our booklet, Living with and after prostate cancer: A guide to physical, emotional and practical issues.
Check out our online ‘How to manage’ guides
Our interactive guides have lots of practical tips to help you manage symptoms and side effects. We have guides on fatigue, sex and relationships, and urinary problems. Visit prostatecanceruk.org/guides

Who else can help?
Your medical team
It may be useful to speak to your 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.

I found talking to Prostate Cancer UK’s Specialist Nurses tremendously helpful.
A personal experience

Trained counsellors
Counsellors are trained to listen and can help you find your own ways to deal with things. Many hospitals have counsellors or psychologists who specialise in helping people with cancer – ask your doctor, nurse or radiographer at the hospital if this is available. Your GP may also be able to refer you to a counsellor, or you could see a private counsellor. To find out more, contact the British Association for Counselling & Psychotherapy.

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 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.

Local support groups
At local support groups, men get together to share their experiences of living with prostate cancer. 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 service
This is a 10-week telephone service delivered by our Specialist Nurses. It can help if you have problems with extreme tiredness (fatigue). Fatigue is a common symptom of prostate cancer and a side effect of some treatments, including radiotherapy and hormone therapy. The fatigue support service can help you make positive changes to your behaviour and lifestyle that can improve your fatigue over time.

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 607 8219
Impartial 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
Patient information from Cancer Research UK, including a database of some clinical trials and advice on finding a trial.

Citizens Advice
www.citizensadvice.org.uk
Advice on a range of issues including financial and legal matters. Find your nearest Citizens Advice Bureau in the phonebook or online.

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 Centres
www.maggiescentres.org
Telephone: 0300 123 1801
Drop-in centres for cancer information and support, and an online support group.

NHS Smokefree
www.nhs.uk/smokefree
Telephone: 0300 123 1044
Information and support to help people stop smoking, including telephone support, an app, Quit Kit, email, text message and face-to-face guidance.

NHS website
www.nhs.uk
Information about conditions, treatments and lifestyle. Support for carers and a directory of health services in England.

Pelvic Radiation Disease Association
www.prda.org.uk
Telephone: 01372 744 338
Support for men with long-term side effects of radiotherapy.

Penny Brohn UK
www.pennybrohn.org.uk
Telephone: 0303 3000 118
Runs courses and offers physical, emotional and spiritual support for people with cancer and those close to them.

Sexual Advice Association
www.sexualadviceassociation.co.uk
Information about sexual problems and their treatments, including erection problems.
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.

This fact sheet is part of the Tool Kit. You can order more fact sheets, including an A to Z of medical words, which explains some of the words and phrases used in this fact sheet.

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

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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
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, 40,000 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