

Radiotherapy for advanced prostate cancer

What is radiotherapy for advanced prostate cancer?

The aim of all types of radiotherapy is to destroy cancer cells.

Radiotherapy damages cells and stops them from dividing and growing. Cancer cells can't recover from this damage so they die, but healthy cells can repair themselves more easily.

For **advanced prostate cancer**, the main aims of radiotherapy are:

- to shrink the cancer in the part of the body being treated – to stop it pressing on the nerves and causing pain
- to slow the growth of the cancer, giving your bones time to repair and strengthen.

This is sometimes called palliative radiotherapy. Palliative radiotherapy doesn't aim to cure cancer but it can help to slow down its growth.

There are two types of radiotherapy that can do this:

- external beam radiotherapy (EBRT)
- a type of internal radiotherapy called radioisotope treatment.

Radiotherapy for advanced prostate cancer uses less radiation overall than radiotherapy for earlier stages of prostate cancer. The course of treatment is also often shorter.

What other treatments are available?



What are the advantages and disadvantages of radiotherapy?

- External beam radiotherapy (EBRT)
- Radioisotope treatment

Who can have this kind of radiotherapy?

Men with advanced prostate cancer can have this kind of radiotherapy to slow down the growth of the cancer and control symptoms, such as bone pain.

Advanced prostate cancer is cancer that has spread from the prostate to other parts of the body, such as the bones. It's also called metastatic prostate cancer. Treatments for advanced prostate cancer, such as hormone therapy, can keep it under control for many months or years.

Prostate cancer can spread to any part of the

Radiotherapy for advanced prostate cancer

This fact sheet is for men with advanced prostate cancer who would like to know more about treatment with radiotherapy to help relieve symptoms

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Who can have this kind of radiotherapy?

If you have **advanced (metastatic) prostate cancer** you may be offered radiotherapy to slow down the growth of the cancer and control symptoms, such as bone pain.

Advanced prostate cancer is cancer that has spread from the prostate to other parts of the body, such as the bones. [Treatments for advanced](#)

prostate cancer, such as hormone therapy, can keep it under control for many months or years.

Prostate cancer can spread to any part of the body, but the most common places for it to spread are to your bones or lymph nodes. You might hear cancer that has spread to the bones described as bone secondaries, bone metastases or bone mets. This isn't the same as bone cancer, which starts in the bones.

When prostate cancer spreads to your bones it can cause pain and may sometimes make moving around more difficult. Radiotherapy can help treat this pain. Some men with prostate cancer have other symptoms, such as blood in their urine or discomfort from swollen lymph nodes. Radiotherapy can often help with these symptoms too.

Radiotherapy can also be used to treat a condition called metastatic spinal cord compression (MSCC).

[Read more about managing symptoms in advanced prostate cancer.](#)

Talk to your doctor or nurse about which treatment might be right for you. This could depend on where your cancer has spread to, what treatment you've already had and your general health and fitness.

What do my test results mean?

- What treatments are available?
- How will my cancer be monitored?
- What happens if my cancer starts to grow again?

Questions to ask your doctor or nurse

- More information
- About us

This fact sheet is for men who have been diagnosed with advanced (metastatic) prostate cancer – cancer that has spread from the prostate to other parts of the body. Your partner, family or friends might also find it helpful.

We explain what advanced prostate cancer is, what your test results mean, and the treatments available.

If you want to find out about localised or locally advanced prostate cancer, read our

Symbols

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

-  Speak to our Specialist Nurses
-  Read our publications

What is advanced prostate cancer?

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Advanced prostate cancer

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What are the advantages and disadvantages?

The advantages and disadvantages of radiotherapy depend on your general health, previous treatment and how far your cancer has spread. Talk to your doctor, radiographer or nurse about your own situation.

Advantages

- Radiotherapy may help relieve your symptoms for several months and improve day-to-day life.
- It may slow down the growth of the cancer in the area that's treated and help make your bones stronger.
- Treatment works quite quickly. You should have some pain relief within a few weeks.
- You might be able to reduce the dose of any pain-relieving drugs you're taking. This could be useful if they are causing side effects.
- Research has shown that a new type of internal radiotherapy called radium-223 can help relieve symptoms and can help men with advanced prostate cancer to live longer.

Disadvantages

- Like most treatments, radiotherapy can cause side effects. The risk of side effects depends on which radiotherapy you have.

- You might have slightly more pain during treatment, and for a few days afterwards. This should soon improve.
- The pain can come back after several months. If this happens, you might need further treatment with radiotherapy or other treatments.

The specialist who plans your radiotherapy treatment with you is called a clinical oncologist. They should talk to you about whether you might benefit from radiotherapy, which type of radiotherapy you will have, how long the treatment could take and the possible side effects. A specialist called a therapeutic radiographer will give you your treatment.

[What other treatments are available?](#)



Our Nurses

Ask all the questions you need answers to, or just talk. Our nurses have time for you.

[Find out more](#)

External beam radiotherapy (EBRT)

External beam radiotherapy is an effective and common way of relieving pain from prostate cancer that has spread to your bones. During treatment, high energy X-ray beams are directed at the area of pain from outside the body.

It may be a week or more after treatment before your pain starts to improve. It normally takes a few weeks for treatment to have its full effect. Pain relief usually lasts for an average of four to six months, but this can vary from person to person. For every ten men who have this treatment, between five and eight (50 to 80 per cent) get some pain relief from it.

Preparing for external beam radiotherapy

Before starting treatment you will usually have a planning session. This might involve a CT (computerised tomography) scan to help your doctor, radiographer or nurse map the exact area of your body that needs treating.

A few very small marks, like tiny tattoos, will be made on your skin in the area to be treated. This helps the radiographers put you in the right position during treatment.

What does treatment involve?

You will have your treatment in the outpatient radiotherapy department at the hospital. This means you'll usually be able to go home the same day.

You'll have either one single dose or a series of smaller doses spread out over a week or more. If you're having more than one dose, you might have it every day, every few days or once a week. At the beginning of each treatment, the radiographers will help move you into the right position on the treatment couch. They will use the marks that were made on your body as a guide.

The radiographer will then leave the room, but they'll be able to see you at all times through cameras. The radiotherapy machine moves around your body and it will make a slight noise. It doesn't touch you and you won't feel anything – a bit like having an X-ray. You'll need to lie still, but the

treatment only lasts a few minutes. You should be able to go home after the treatment has finished.

What are the side effects?

Like all treatments, external beam radiotherapy causes side effects in some men. But they affect each man differently and you might not get all of them, or any of them. Ask your doctor, radiographer or nurse for more information on the risk of side effects.

There are usually only a few side effects from external beam radiotherapy because you'll only have a few doses of treatment. The risk of side effects is higher if you are having radiotherapy to several different areas of your body or if a higher total amount of radiotherapy is used.

Which side effects you have will depend on which part of your body is treated. These are some of the most common side effects of external beam radiotherapy.

- Some men feel tired for a week or two after treatment finishes.
- Your skin might get darker and itch in the area treated, similar to sunburn. Avoid using any creams, lotions or perfumed soaps unless you are advised to do so by your doctor, radiographer or nurse.
- Radiotherapy to your pelvis or abdomen (stomach area) can make you feel or be sick – anti-sickness medication can help treat this.
- Radiotherapy to your lower body can lead to loose and watery stools (diarrhoea) – there are treatments to help this.
- You might have slightly more pain during the course of treatment or for a few days after it has finished– this should soon get better. It is important to keep taking any pain relieving drugs you've been given.
- Radiotherapy can affect the amount of blood cells your body produces, which can lead to anaemia or mean you're more likely to bruise easily, bleed or get an infection. This is more likely if a large area of your body is being treated.

[Read more about managing symptoms and getting support for advanced prostate cancer.](#)

Radioisotope treatment

Another way of using radiotherapy to treat advanced prostate cancer is with an injection of a very small amount of a radioactive liquid called a radioisotope. You may also hear this called internal radiotherapy.

The treatment works by travelling around the body in your blood and collecting in any bones that have been damaged by prostate cancer. Radioisotopes can be particularly helpful if you have pain in more than one area. For every ten men who have this treatment, between six and seven (60 to 70 per cent) get some pain relief from it.

Strontium-89

Strontium-89 (Metastron®) is a radioisotope that can be used to relieve bone pain and prevent new pain from occurring. It can take up to two weeks to start working and lasts for around 4 to 15 months.

Preparing for treatment

Before having strontium-89 there are things you should discuss with your doctor, radiographer or nurse.

- Let them know if you are taking any medicines. Strontium-89 can affect the way your blood clots so you may need to stop taking anti-inflammatory drugs such as ibuprofen or blood-thinning drugs such as aspirin or warfarin.
- If you are taking calcium, phosphate or vitamin D supplements, you may need to stop taking them for a while.
- You might not be able to have treatment with strontium-89 if your cancer or previous treatment has damaged your bone marrow. Bone marrow is the spongy tissue found inside some of your larger bones – it's where blood cells are made.

If you have treatment with strontium-89, you may not be able to have chemotherapy in the future if your pain returns. This is because both

chemotherapy and strontium-89 can affect your bone marrow. Speak to your doctor about whether chemotherapy is an option for you. There will usually be another treatment that you can have.

What does treatment involve?

You'll have the treatment at a hospital outpatient appointment and will be able to go home afterwards. On the day of your appointment you will be given the strontium through a small tube (cannula) put into a vein in your arm or hand. This will only take a couple of minutes.

After the injection, your urine and blood will be slightly radioactive. It will be safe for you to be around other people, including children, but your doctor, radiographer or nurse will let you know what safety guidelines you need to follow for a few days after treatment. For example, you may need to be extra careful with wiping up any spills after going to the toilet and flushing tissues away.

Strontium-89 will stay in the bones for several months and continue to treat the cancer cells. Any strontium-89 that is not taken up by the bones will be gone from your urine and blood in a few days.

What are the side effects?

Most side effects of strontium-89 only last a short time and are not severe.

- Some men have more pain in the days after treatment, but this should only last for a few days.
- Sometimes the bone marrow is affected which might change the way that your blood clots and increase your risk of infection and anaemia. If this happens you may get a fever, chills, bruising, bleeding or tiredness. It is rare for infection or anaemia to be severe, but you might need regular blood tests after treatment.
- You may feel or be sick (nausea or vomiting) or have diarrhoea. This is not common.

Radium-223

Radium-223 (Xofigo) is a new type of radioisotope for men who have prostate cancer that is no longer responding to hormone therapy. It can improve some of the symptoms caused by cancer spreading to your bones, such as bone pain and fractures. Research also shows that radium-223 can help men live longer.

Radium-223 may be an option if your prostate cancer has spread to your bones but not to other organs in your body, for example, your liver. But it isn't yet widely available on the NHS (in England, Scotland or Wales) or through the Health and Social Care (HSC) service in Northern Ireland.

If you live in England, you may be able to get radium-223 through the Cancer Drugs Fund. If you live in Scotland or Wales, your doctor can apply to your local health board if they think radium-223 is suitable for you. If you live in Northern Ireland, your doctor can apply to your local HSC Trust for you. You may also be able to get radium-223 through a clinical trial.

Speak to your doctor or nurse about whether radium-223 might be an option for you. You can also talk to our Specialist Nurses or visit our website prostatecanceruk.org/new-treatments.

Preparing for treatment

Before having radium-223 there are things you should discuss with your doctor, radiographer or nurse.

- Let them know if you are taking any medicines. If you take calcium, phosphate, or vitamin D supplements, you may need to stop taking these for a while.
- Your doctor or nurse may ask you to have a blood test before treatment to check your blood cell levels are high enough.

What does treatment involve?

Radium-223 is injected into a vein through a small tube put into your arm (cannula). This will only take a couple of minutes. You should be able to go

home straight after the treatment. You will normally have an injection every four weeks, for up to six injections.

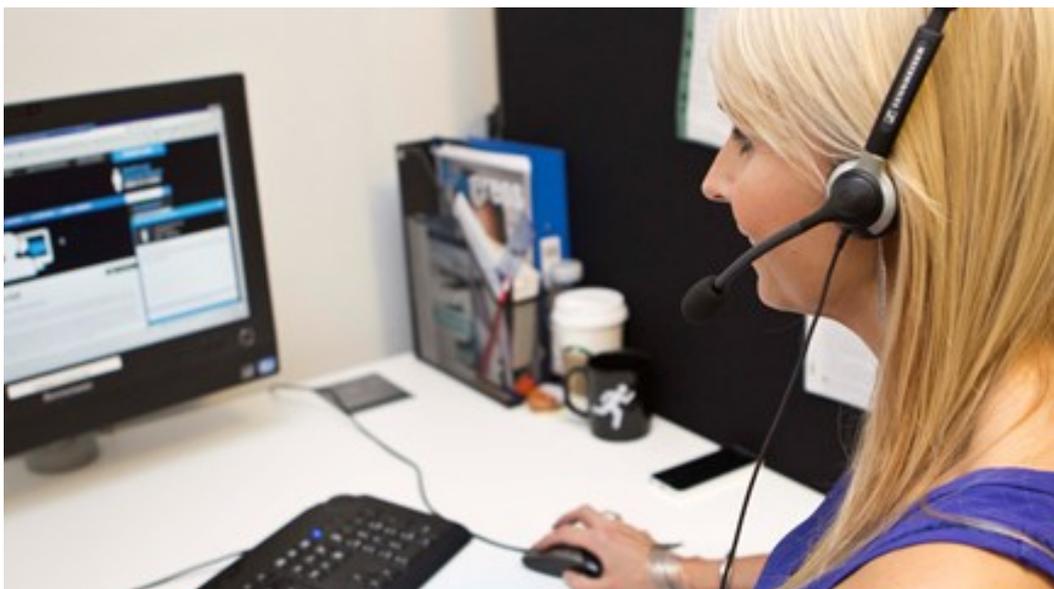
After your injection, your urine, bowel movements and blood will be slightly radioactive. It will be safe for you to be around other people, including children. But your doctor, radiographer or nurse will let you know what safety guidelines you need to follow for a week (seven days) after treatment. For example, you may need to be extra careful with wiping up any spills after going to the toilet and flushing tissues away.

What are the side effects?

Radium-223 does not cause much damage to the surrounding healthy cells, so it doesn't usually cause side effects. Because radium works in a slightly different way to other radioisotopes you are less likely to get side effects.

If you do get side effects they may include feeling or being sick (nausea or vomiting) and diarrhoea. Radium-223 can affect your bone marrow, which means you may have a drop in blood cells but this is rarely severe enough to cause problems.

[Read more about managing symptoms and getting support for advanced prostate cancer.](#)



Our Specialist Nurses

Ask all the questions you need answers to, or just talk. Our nurses have time for you.

[Find out more](#)

What happens after radiotherapy?

Your doctor will monitor you and your symptoms. Pain can sometimes get worse during treatment and for a few days afterwards – called a pain flare. If you get this, it shouldn't last long. Your doctor might prescribe some pain-relieving drugs to help with the pain, or increase the dose that you already take.

You should notice that the pain gradually improves, though it might take a few weeks for the treatment to be most effective. The pain relief usually lasts for several months and you may be able to reduce the dose of any pain-relieving drugs you are taking. But speak to your doctor, nurse or GP about this – reducing the dose shouldn't be done suddenly.

If your pain or other symptoms don't improve, talk to your doctor or nurse. If your pain has come back, they might suggest another course of radiotherapy. If you've already had external beam radiotherapy to one area, you may be able to have it again to the same area. This will depend on the dose you've already had.

If you've already had external beam radiotherapy to one area, you might be able to have either more external beam radiotherapy or internal radiotherapy. You might be able to have more than one course of internal radiotherapy.

There are other treatments that might help reduce or control any symptoms. The options available to you will depend on treatments you've already had and might include:

- treatments for the cancer itself, such as [hormone therapy](#) or [chemotherapy](#)
- drugs called [bisphosphonates](#) which help relieve bone pain
- steroids to reduce swelling around the cancer and relieve pain.

Ask your doctor or nurse about your options.

[Read more about managing pain in advanced prostate cancer.](#)



One-to-one support

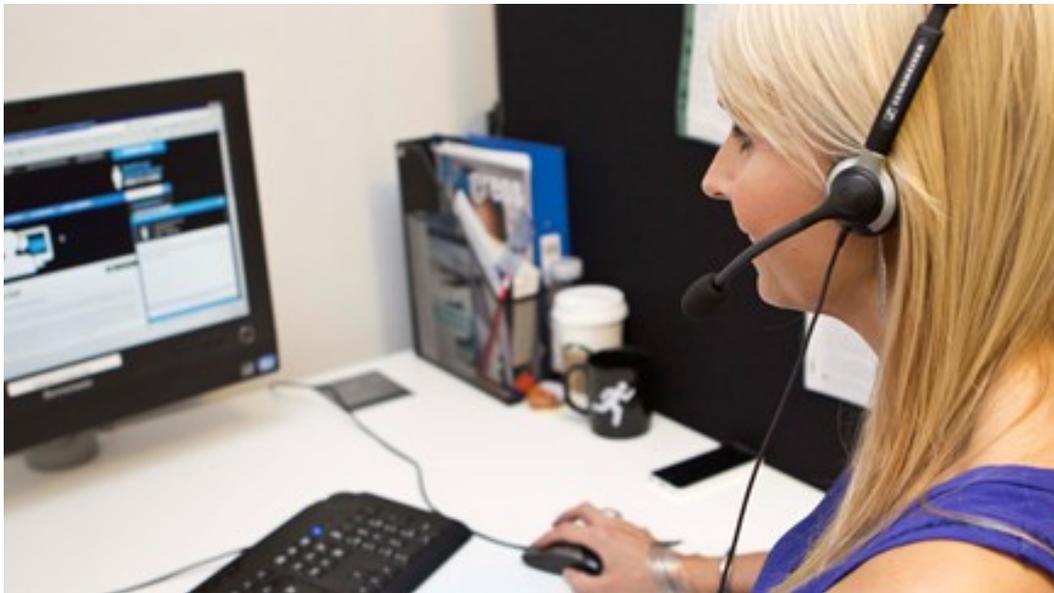
Anyone affected by prostate disease can talk with one of our trained support volunteers.

[Find out more](#)

Questions to ask your doctor or nurse

- How will radiotherapy help me?
- What other treatments are available to help with my pain?
- Which type of radiotherapy is best for me?

- How long will the pain relief last?
- Will I get any side effects? What can help with these?
- Are there any safety guidelines I should follow during and after treatment?
- Who should I contact if I have any questions at any point during my treatment?
How do I contact them?
- Will having this treatment mean I can't have other types of treatment later on
(for example, chemotherapy)?



Our Specialist Nurses

Ask all the questions you need answers to, or just talk. Our nurses have time for you.

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References

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Full list of references used to produce this page