

Permanent seed brachytherapy

What is it?

Permanent seed brachytherapy, also known as low dose-rate brachytherapy, is a type of radiotherapy where tiny radioactive seeds are put into your prostate. Each radioactive seed is the size and shape of a grain of rice. The seeds stay in the prostate and give a steady dose of radiation over a few months.

Radiation from the seeds destroys cancer cells in the prostate. You may be suitable for this treatment if your cancer is thought to be contained within the prostate gland (**localised prostate cancer**) and:

- your **PSA level** is 10ng/ml or less, and
- your **Gleason score** is 6 or less, and
- the **stage** of your cancer is T1 - T2a.

If you have a PSA level between 10 and 20 ng/ml, and a Gleason score of 7, this treatment may still be an option for you as long as tests show that the cancer is unlikely to have spread outside of the prostate. Check with your doctor or nurse. It may not be suitable if you have a large prostate gland, severe problems passing urine, or have recently had an operation called a transurethral resection of the prostate (TURP).

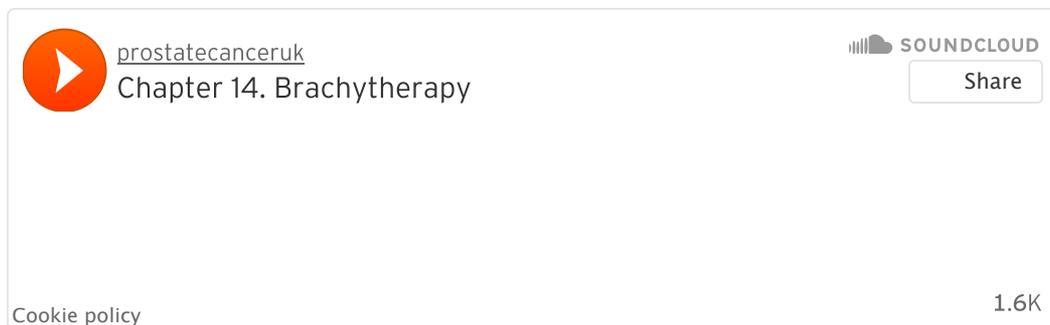
You may have this treatment on its own or together with **external beam radiotherapy** and/or **hormone therapy**. It is just as good at controlling prostate cancer as **other treatments**.

There is another type of brachytherapy called **temporary brachytherapy** or high dose-rate (HDR) brachytherapy. It is less common than permanent seed brachytherapy.

What other treatments are available?

Watch's **Chris' story** for one man's experience of brachytherapy.

Or listen to our audio explanation of brachytherapy.



The image shows a SoundCloud player interface. On the left is a red play button icon. To its right is the text 'prostatecanceruk' and 'Chapter 14. Brachytherapy'. In the top right corner, there is a 'SOUNDCLOUD' logo and a 'Share' button. At the bottom left, there is a 'Cookie policy' link, and at the bottom right, there is a '1.6K' view count.

What are the advantages and disadvantages?

What are the advantages and disadvantages?

What may be important for one person might not be for someone else. If you are offered permanent seed brachytherapy, speak to your doctor or nurse before deciding whether to have it. They will be able to help you think about which treatment option is right for you. There's usually no rush to make a decision so give yourself time to think about whether permanent seed brachytherapy is right for you.

Advantages

- Recovery is quick so most men can return to their normal activities one or two days after treatment.

- The radiation is inside the prostate gland and does not travel far, so there may be less damage to the surrounding healthy tissue, and a lower risk of some side effects.
- You will be in hospital for just one or two days for your treatment.
- If your cancer comes back, you may be able to have further treatment with [hormone therapy](#) or [cryotherapy](#) – or sometimes [surgery](#) although this isn't common.

Disadvantages

- Permanent seed brachytherapy can cause side effects such as urinary, erection and bowel problems.
- You will usually need to have a general or spinal anaesthetic – which can have side effects.
- It may be some time before you will know whether the treatment has been successful.
- It may make you infertile, which means you won't be able to have children naturally.
- You will need to avoid sitting closer than 50cm (20inches) to pregnant women or children for more than a few minutes each day, for the first two months after treatment.

Permanent seed brachytherapy

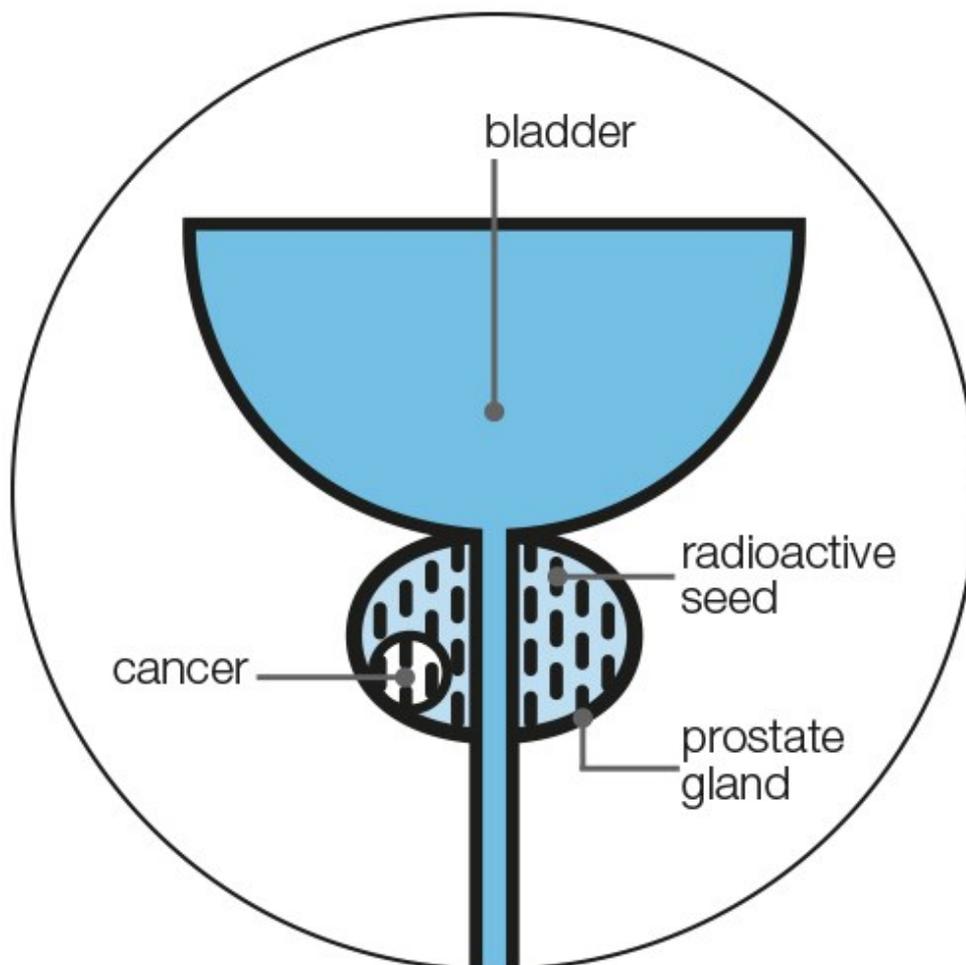
This is for men who are thinking about having permanent seed brachytherapy to treat their prostate cancer. Partners and families of men with prostate cancer may also find it useful. It describes how prostate cancer is treated using radioactive seeds implanted in the prostate.

[Download or order](#)

What does treatment involve?

You will have a planning session to measure the size, shape and position of your prostate to work out how many radioactive seeds you need. This is also a final check that the treatment is suitable for you. You may have a general anaesthetic so that you are asleep during the procedure, or you could have a spinal or epidural anaesthetic, so that you are awake but cannot feel anything.

The radioactive seeds will either be put into the prostate on the same day as the planning session (one-stage procedure) or they will be put in two to four weeks later (two-stage procedure). You will have a general anaesthetic or you may have a spinal or epidural anaesthetic.



What happens afterwards?

You will have a [computerised tomography \(CT\)](#) or [magnetic resonance imaging \(MRI\)](#) scan up to six weeks after the treatment to check the position of the seeds. You will have regular [follow-up](#) appointments after this to monitor your [PSA level](#) and any side effects. If your treatment has been successful, your PSA level should drop, although it may start to rise again because your prostate will still produce some PSA. Some men may experience a rise and fall in PSA levels up to three years after treatment.

You should be able to return to your normal activities within a few days and go back to work as soon as you feel able to.

Brachytherapy can make you infertile which means you won't be able to have children naturally. But it's still possible to make someone pregnant after brachytherapy. The radiation could change the sperm, which might affect any children you conceive. The risk of this is very low, but you may have to use contraception for up to a year after having treatment, if there is a chance of your partner becoming pregnant.

If you plan to have children in the future, you may be able to store your sperm before you start treatment so that you can use it for fertility treatment. Your doctor, nurse or radiographer will tell you if this is possible.

Permanent seed brachytherapy

This is for men who are thinking about having permanent seed brachytherapy to treat their prostate cancer. Partners and families of men with prostate cancer may also find it useful. It describes how prostate cancer is treated using radioactive seeds implanted in the prostate.

[Download or order](#)

Follow-up after prostate cancer treatment: What happens next?

In this booklet, we describe the care and support you can expect after your treatment.

[Download or order](#)

What are the side effects?

Side effects usually start to appear about a week after treatment, when the radiation from the seeds starts to have an effect. They are generally at their worst a few weeks after treatment, when the radiation dose is strongest, but should then improve over the following months as the seeds lose their radiation.

The most common side effects are:

- Blood-stained urine or rusty or brown-coloured semen for a few days or weeks.
- Bruising and pain in the area between your testicles and back passage that can spread to your inner thighs and penis. This will disappear after a week or two.
- Discomfort when you pass urine and a need to pass urine more often and urgently, especially at night.
- Problems passing urine, erection problems, bowel problems and tiredness.

Side effects will affect each man differently, and you may not get all of the side effects.

Some men who have had brachytherapy and [external beam radiotherapy](#) together may find that they have worse side effects. If you already had urinary, erection or bowel problems before treatment, these may be worse after treatment.

I do have some long term bladder irritability as a result of the radiation, but I manage this with medication.

- A personal experience

Questions to ask your doctor or nurse

- Will I have a planning session at a different time to the treatment, or immediately before?
 - Will I have **external beam radiotherapy** or **hormone therapy** as well as permanent seed brachytherapy?
 - What side effects might I get?
 - How will I know if the treatment has worked?
 - What should my PSA level be after treatment and how often will you measure it?
 - If my PSA continues to rise, what other treatments are available?
-

References

Updated: January 2017 | Due for Review: January 2019



List of references





Prostate information

Read reliable and up-to-date information about prostate cancer and prostate problems.

[All information](#)