

Treatments: External Beam Radiotherapy

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Prostate cancer may be **localised** –only affecting the prostate - or it may be **locally advanced** or **advanced** –the cancer has moved outside the prostate.

If your doctors believe the cancer just affects the gland, they will discuss different kinds of treatment with you. These could be external beam radiotherapy – where radiation is used to kill cancer cells; surgery – where the prostate is removed; brachytherapy – where radioactive seeds are implanted into the prostate, or active monitoring-sometimes called 'watchful waiting' where the state of the cancer is closely observed and treatment started only when, or if, necessary.

This sheet is about external beam radiotherapy for localised prostate cancer.

This fact sheet gives you some idea about what happens during a course of external beam radiotherapy for prostate cancer.

Different hospitals and specialists differ slightly in how they do things. You should use this information as a guide rather than expect it to match your experience exactly. Your medical team will discuss their specific local information with you.

The fact sheet also guides you on what to look out for once you have finished treatment.

External beam radiotherapy

There are two types of external beam radiotherapy available in the UK at present:

- Standard External Beam Radiotherapy. This is a commonly available form of radiotherapy.
- 3D Conformal Radiotherapy often shortened to 3D Conformal. This is less widely available but becoming more common.

Throughout the fact sheet both forms of external beam treatment are referred to together, as radiotherapy.

There is another form of treatment with radiation available in the UK, called **brachytherapy**. Unlike external beam radiotherapy, brachytherapy is a way of giving radiation treatment internally. Radioactive seeds are implanted directly into the prostate. To find out more about this, see the Brachytherapy fact sheet.

Advantages of radiotherapy

None of the risks of surgery
You will not need to stay in the hospital over night
You can carry on with many of your usual activities during the period of treatment

Disadvantages of radiotherapy

Possible damage to bladder and rectum.
Diarrhoea and cystitis are common short-term side effects
Risk of impotence and incontinence
Requires daily hospital visits for 6 weeks

Your specialists

Your urologist is an expert in surgery. If you are considering radiotherapy your urologist will refer you to a radiotherapist, a specialist in treating cancer with radiotherapy. The radiotherapist, also called a clinical oncologist, is the leader of the team that will care for you if you decide on radiotherapy .

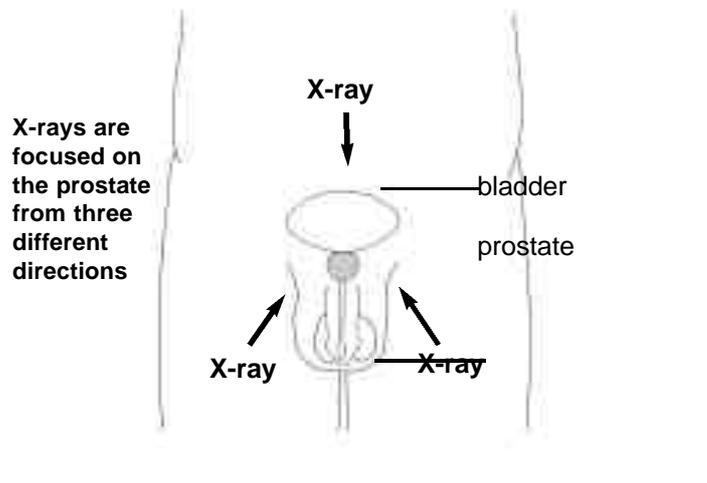
What is radiotherapy?

When radiation is used to treat cancer it is referred to as radiotherapy. You may have heard it called radium treatment, deep X-ray therapy or DXT.

Radiotherapy uses high-energy X-ray beams directed at the prostate from outside the body. These beams prevent cancer cells from dividing and the cancer growing larger. It uses stronger rays than those used for taking X-ray images.

Radiotherapy destroys the cancer cells in the treated area. Although normal cells are also affected, they can repair themselves more effectively than the cancer cells.

3D conformal radiotherapy



What is the difference between 3D conformal and standard external beam radiotherapy?

3D conformal radiotherapy is an updated method of standard external beam radiotherapy. It uses beams shaped to the particular outline of your prostate by lead blocks or rods. Computer images are used to target the radiotherapy beams accurately. This reduces the dose of radiation to the surrounding normal tissue.

If your local unit offers 3D conformal radiotherapy, you will be asked to visit the hospital for a CT scan of your prostate. This is a special kind of X Ray. The scanner produces a series of images that are fed into a computer. A 3D image of the prostate gland is made from these images and used as a guide. The radiation can then be delivered to the exact size and shape of your gland.

Call The Prostate Cancer Charity Helpline on 0845 300 8383 to find which hospitals offer 3D conformal radiotherapy.

Who can have radiotherapy?

Radiotherapy is a treatment for prostate cancer for men of any age. It is commonly used for men over the age of 70. Doctors often recommend radiotherapy for older men because it is a less invasive treatment than surgery. Even if you are younger than 70 your doctors may recommend it for you. They may offer it to you because you have other health problems or you may prefer it because you do not want to have an operation.

What kinds of prostate cancer can be treated with radiotherapy?

Radiotherapy alone is most successful when treating a slow growing, localised cancer. If you have locally advanced prostate cancer, or a more aggressive one, you may need other treatment in addition to radiotherapy. Usually this is hormone therapy. See the Hormone Therapy fact sheet for more information about this.

Surgery for prostate cancer does not always completely remove the cancer. If your cancer grows again after treatment, your urologist may recommend a course of

radiotherapy to try and kill the cancer cells that remain.

What is the preparation for radiotherapy?

Your team may recommend that you receive hormone treatment for three months before you begin a course of radiotherapy. The hormone treatment shrinks the prostate and makes the cancer within it easier to treat with radiotherapy. Not every man will need this.

Whether you have standard radiotherapy, or 3D conformal, you will be asked to attend a simulation or planning session. If you have had to take hormones the planning appointment will probably be towards the end of the course of hormone treatment. This is because the hormones will change the size of your prostate.

At the planning appointment your abdomen and pelvis are marked with small tattoos or special marker pen. These marks act as a guide to the exact location of your prostate. This means you can be lined up consistently each time you are treated.

You may meet the physicists and planning radiographers when you go for your planning appointment. They work behind the scenes for the rest of the time. They specialise in radiation treatments and decide the best way of delivering the amount of radiation prescribed, and the type of machine to use. They also make sure the radiotherapy equipment runs safely.

How is radiotherapy given?

Your radiotherapist is responsible for planning, prescribing and supervising your treatment. He or she will make sure the whole of your prostate gland is treated, as well as a margin around it. This is to make sure that any stray cancer cells are also targeted.

Whether you have standard radiotherapy or 3D conformal radiotherapy, you will receive your treatment over several weeks – sometimes as many as six or seven - in a hospital radiotherapy unit. You will go home after having it each day. Each treatment is known as a **fraction**. Fractions are usually given once a day, from Monday to Friday, with a rest at the weekend. This rest helps normal cells recover.

The radiotherapy machine is a large piece of equipment housed in its own special room, often at basement level. This is so that the radiotherapy can be given safely to you, whilst not exposing anyone else unnecessarily to radiation. Each treatment lasts only for a few minutes and is not painful. You will lie on a hard couch under an X-Ray machine and will not feel the treatment taking place. The machine may make a slight noise.

Who will I see?

You will see your radiotherapist, or a doctor from his or her team regularly during your treatment. They will continually monitor your progress.

The staff you will see most often are the treatment radiographers. They operate the machines that give you your treatment. You will usually see the same

radiographers each day, so you will get to know each other quite well. They can give you help and advice about your treatment. So can the nurses who work in the department. You should discuss any concerns with either the radiographers or the nurses. They will give you advice on coping with any side effects.

What short term side effects could there be?

Radiotherapy can have temporary side effects, commonly:

- tiredness
- bowel problems
- a burning sensation on passing urine

Tiredness

Sometimes tiredness only affects men towards the end of the course of treatment. You should try and take it easy throughout, though many men feel well enough to continue working. If tiredness becomes a problem, you should arrange for someone else to drive you to and from your radiotherapy appointments. If you have no transport of your own, and find you are too tired to use public transport, there may be a hospital car service available locally. Ask your GP or the radiotherapy department about this.

Rectal problems

You may feel as if you need to open your bowels but all you pass is wind and some diarrhoea. You may need steroid suppositories to settle these symptoms. Some men get diarrhoea towards the end of their course of treatment but usually this problem settles down.

A burning sensation on passing urine

Some men get a burning feeling, known as cystitis, when passing urine. This usually lasts only a few weeks, starting at about week four and finishing after the treatment ends.

Feeling sick is rare with radiotherapy for the prostate. Your doctor can prescribe drugs to overcome this.

What long-term side effects could there be?

Some men who have external beam radiotherapy have long-term bowel problems. This occurs in less than 5% of men. Your bowel motions may be more frequent or looser than they were before. You may also have a slimy mucus discharge from the bowel. In most men the symptoms gradually settle.

There can be other long-term side effects. These are urinary incontinence – which means that you may leak urine - and impotence, which is being unable to achieve and maintain an erection. Roughly 20-30% of men might be affected, but ask your radiotherapy team for local up-to-date complication rates. This means you are fully informed about the possible risks involved.

For more information on dealing with impotence and incontinence ask for the relevant fact sheets from us.

What happens after the course of radiotherapy is completed?

Your general health, PSA levels and any side effects will be monitored in the months ahead. After check ups with the radiotherapist, you may return to the care of your urologist. You may remain under the care of the specialist who supervised your treatment. Your GP will continue to measure your PSA at regular intervals, and you will have regular hospital appointments at three, then six monthly intervals, and then annually. Your GP will contact your urologist or radiotherapist should there be any concerns in the future.