

Patient information from BMJ

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Prostate cancer

Prostate cancer is serious, but it often grows slowly. If your prostate cancer is caught early, you don't have to rush into a decision about treatment.

Here, we look at prostate cancers that have not spread to other parts of the body (called non-metastatic cancer).

What is prostate cancer?

Your prostate gland sits near your bladder. It makes the fluid that carries sperm out of your penis when you have an orgasm.

If you have prostate cancer, it means that some of the cells in your prostate gland have started to grow out of control.

The cancer cells form a lump called a **tumour**. The tumour can cause problems as it grows, such as difficulty urinating and painful orgasms.

Cancer cells can also break off the main lump and spread to other parts of your body. This can be very serious, and even life threatening. However, tumours in the prostate often grow very slowly. Most men live for many years without getting any symptoms.

Some men are more likely than others to get prostate cancer. You are more likely to be affected if you:

- are older
- have Black or African ancestry, or
- have a family history of prostate cancer.

It's possible that a high-fat diet might make prostate cancer more likely. But there isn't much evidence about this.

What are the symptoms?

Symptoms of prostate cancer include:

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- having problems urinating (peeing), such as having to urinate more often, and needing to get up during the night to urinate, and
- having blood in your urine or semen.

But most men who have problems urinating don't have cancer. The symptoms of prostate cancer are very similar to the symptoms of an **enlarged prostate**. An enlarged prostate is not cancer.

You might have heard an enlarged prostate called **benign prostate hyperplasia (BPH)** or **lower urinary tract symptoms (LUTS)**.

So these symptoms alone don't mean that you have prostate cancer. For example, even having blood in your urine could be caused by something else, such as a **urinary tract infection (UTI)**.

If you have these symptoms, though, it's best to have them checked out.

Many men find talking to their doctor about these problems embarrassing. But urinary symptoms are extremely common, especially in middle-aged and older men. So your doctor will have plenty of experience of dealing with them.

For most men, having your symptoms checked out just gives peace of mind.

For more information on checking for prostate cancer, and for testing, see our leaflet: *Routine screening for prostate cancer*.

What treatments are available?

Prostate cancer is a serious but often curable disease. Even if your cancer has grown into nearby tissue outside the prostate, your chances of survival are still good.

But prostate cancer cells can sometimes spread to other, more distant parts of the body.

This spread is called metastasis, and it is a more advanced and serious form of cancer.

Here, we look at treatments for prostate cancer that has not spread to other parts of the body (non-metastatic cancer).

There are four main treatment options: **expectant management**, **surgery to remove the prostate**, **radiotherapy**, and **hormone therapy**.

What treatment, or treatments, your doctor recommends will depend on three main things:

- **How high-risk your cancer is.** Your doctor will consider several factors, including how big your tumour is, whether your cancer has spread (and how far), and whether it appears to be fast-growing.

Based on these things and on the results of tests, he or she will calculate your level of risk.

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If you are in a lower-risk group, one of your treatment options may be to take a wait-and-see approach and hold off on treatment for the time being (expectant management).

- **How long you're likely to live (your life expectancy).** This is based on your age and your health.

If you are older or if you have other serious health issues, your prostate cancer may never cause problems in your lifetime and you may decide to hold off on treatment.

But if you are younger and otherwise in good health, there's a higher chance that your cancer will eventually spread and cause problems. So, your doctor may recommend having one or more treatments to get rid of the cancer.

- **Your choices.** Your views and preferences play an important role in your treatment.

For example, you may decide you're comfortable living with an untreated cancer if it means you can avoid the side effects of treatments.

On the other hand, you may decide that getting rid of the cancer is the most important thing for you, and that you want the most aggressive treatments, regardless of the possible side effects.

Your doctor will fully explain all your options, and help you make a decision based on what is most important to you.

Expectant management

Expectant management means that you have regular check-ups rather than treatment. You may also hear this called 'active surveillance'.

For many men, prostate cancer grows slowly. A wait-and-see approach obviously can't cure your cancer. But by choosing expectant management, you'll avoid all the side effects of other treatments.

You can start treatment in the future if your cancer starts to spread. But some men will live the rest of their lives without needing treatment, especially if they're older.

If you have expectant management, you will see your doctor regularly - probably at least every six months - to check on your cancer.

Surgery

Surgery for prostate cancer involves having an operation to remove your prostate gland and some of the tissue around it. You may also have nearby lymph nodes removed. The goal is to remove all of the cancer and stop it spreading.

There are a few ways to do the operation. It can be done:

- through a large cut in your abdomen
- through a cut in the skin between your anus and your scrotum, or

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- with keyhole surgery (laparoscopic surgery), which is done by inserting tiny tools through several small cuts.

Having your prostate removed is a major operation. And it's possible for the organs and nerves close to the prostate to get damaged during surgery.

This can cause problems, such as difficulty controlling the flow of urine.

Although this usually gets better once men have recovered from surgery, some men don't regain full control. They may, for example, leak some urine when coughing, sneezing, or exercising.

Some men also have difficulty controlling their bowel movements for a while after their surgery. Prostate surgery can also make it difficult to get an erection.

Without a prostate, you can still have orgasms but you won't produce any semen when you ejaculate.

You also will no longer be able to father children through sex. Some men store a sample of their semen before having their prostate removed, so they can still father children.

As with any major operation, there's a small chance you could die from prostate surgery.

Your doctor will explain the possible risks for you, based on your age and general health. Your doctor can help you decide if the benefits of surgery outweigh the risks.

Radiotherapy

Radiotherapy uses high-energy x-rays to kill cancer cells. There are two main types of radiotherapy used for prostate cancer. They are sometimes combined with each other, or with other treatments.

- **External beam radiotherapy:** a special machine carefully directs radiation into your tumour from outside of your body.

You lie very still on a table during treatment. One session of treatment usually lasts around 10 minutes. You'll have treatment five days a week for several weeks.

- **Brachytherapy:** radioactive seeds are implanted in your prostate during a small operation. The seeds are each about the size of a grain of rice.

If you have low-dose seeds implanted, these can stay inside your body after treatment. But if you have high-dose seeds implanted, these will need to be removed when treatment is finished.

Some men prefer brachytherapy over external beam radiotherapy, because they don't have to repeatedly go to hospital for treatment.

Side effects of radiotherapy include tiredness, bowel problems (such as feeling as if you need to go to the toilet urgently), and problems when urinating (such as having a burning feeling or blood in your urine).

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These side effects usually go away after treatment ends. But other problems can happen months or years after radiotherapy, including trouble getting an erection.

Your doctor will provide a complete list of possible side effects.

Hormone therapy

In order to grow, the healthy cells in your prostate gland need the hormone testosterone. And so do the cancer cells.

So, treatment to reduce or block the testosterone in your body may slow down the cancer.

Hormone therapy isn't usually used on its own for lower-risk prostate cancers. But your doctor might recommend having it with radiotherapy if your cancer seems likely to spread.

There are two ways to stop the cancer cells getting testosterone.

- You can take drugs that stop your body making testosterone or that block the effect of testosterone on cells.
- You can have surgery to remove your testicles (your testicles make most of the testosterone in your body).

One advantage of taking drugs to reduce or block testosterone is that you can stop taking them if they don't help or you don't like the side effects. But the effects of surgery to remove your testicles are permanent.

Hormone therapy can cause a range of side effects. Your doctor will discuss these with you in detail.

Examples of possible problems include:

- having difficulty getting an erection
- getting hot flushes
- growing larger, tender breasts
- losing some of your hair
- gaining weight, and
- weakened bones.

What will happen to me?

Prostate cancer is a serious condition. It can be dangerous if it spreads around your body.

But prostate cancer often grows slowly. Many men live for years without getting any symptoms, and some men never need treatment.

If you do need treatment, it can work well to get rid of the cancer if it's caught before it spreads. For example, almost all men who have treatment for early-stage prostate cancer are still alive 5 years later, and most are still alive 10 years later.

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It's hard to say how many are alive after longer than 10 years. Prostate cancer mainly affects older men, many of whom will die from something else in the meantime.

But treatments do have side effects. Be sure to discuss any concerns or questions with your doctor. Together, you can decide on a treatment approach that's right for you.

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