Localised prostate cancer

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This fact sheet is for men who have been diagnosed with localised prostate cancer – cancer that hasn’t spread outside the prostate gland. Your partner, family or friends might also find it helpful.

We explain what localised prostate cancer is, what your test results mean, and the treatment options available.

If you want to find out about locally advanced or advanced prostate cancer, read our fact sheets, Locally advanced prostate cancer and Advanced prostate cancer.

Each hospital will do things slightly differently. Use this fact sheet as a general guide and ask your doctor or nurse for more information. 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

What is localised prostate cancer?
Localised prostate cancer is cancer that’s inside the prostate and hasn’t spread to other parts of the body. You may also hear it called early or organ-confined prostate cancer.

Localised prostate cancer often grows slowly – or doesn’t grow at all – and usually has a low risk of spreading. So it may never cause you any problems or affect how long you live. Because of this, localised prostate cancer might not need treatment. You might be able to have your cancer monitored with regular check-ups instead. This is to make sure the cancer isn’t growing more quickly than expected (see page 5).

But some men will have cancer that grows quickly and has a high risk of spreading.
This is more likely to cause problems and needs treatment to stop it spreading outside the prostate.

The tests described below will help your doctor find out how quickly your cancer might grow and if it has spread outside the prostate. They will also help to find out what treatments might be suitable for you.

**How is localised prostate cancer diagnosed?**

There is no test that can diagnose localised prostate cancer on its own. Prostate cancer is diagnosed using the results of some or all of the following tests.

**Prostate specific antigen (PSA) test**
This measures the amount of PSA in your blood. PSA is a protein produced by normal cells in the prostate and also by prostate cancer cells.

**Digital rectal examination (DRE)**
The doctor feels your prostate through the wall of the back passage (rectum). They feel for hard or lumpy areas that might be a sign of cancer.

**Prostate biopsy**
Thin needles are used to take small pieces of tissue from the prostate. The tissue is looked at under a microscope to check for cancer.

**Magnetic resonance imaging (MRI) scan**
This creates a detailed image of your prostate and the surrounding tissues. You might have an MRI scan to help your doctor decide whether you need a biopsy, or to help decide which areas of the prostate to take the samples from. An MRI scan may also be used to see if the cancer has spread (see page 3).

**Other tests**
The following tests might be used to make sure your cancer hasn’t spread outside the prostate.

- **Computerised tomography (CT) scan**
  This can show whether the cancer has spread outside the prostate, for example to the lymph nodes or nearby bones. Lymph nodes are part of your immune system and are found throughout your body. You probably won’t have a CT scan if you’ve already had an MRI scan.

- **Bone scan**
  This can show whether any cancer cells have spread to your bones, which is a common place for prostate cancer to spread to.

You might not need these scans if other tests show your cancer is unlikely to have spread. Read more about tests in our fact sheet, How prostate cancer is diagnosed.

Some men are diagnosed with prostate cancer after surgery for an enlarged prostate, called a transurethral resection of the prostate (TURP). If you have this operation, the pieces of prostate tissue that are removed are checked for cancer.

**What do my test results mean?**

Your test results will help your doctor understand how quickly your cancer might grow and whether it has spread. This will help you and your doctor to discuss what treatments might be suitable for you.

**PSA level**
It’s normal to have a small amount of PSA in your blood, and the amount rises as you get older. Other things can affect your PSA level, such as a urine infection, ejaculating recently, vigorous exercise – especially cycling – or a prostate problem. You may have had a PSA test that showed your PSA was raised, and then had other tests to diagnose your prostate cancer.

**Gleason grade and Gleason score**
Your doctor may talk about your Gleason grade and Gleason score after your biopsy.

**Gleason grade**
Prostate cancer cells in your biopsy samples are given a Gleason grade. This tells you how aggressive the cancer is – in other words, how likely it is to spread outside the prostate.
When prostate cells are seen under the microscope, they have different patterns, depending on how quickly they’re likely to grow. The pattern is given a grade from 1 to 5 – this is called the Gleason grade. Grades 1 and 2 are not cancer, and grades 3, 4 and 5 are cancer. If you have cancer, the higher the grade, the more likely the cancer is to grow and spread outside the prostate.

**Gleason score**
There may be more than one grade of cancer in the biopsy samples. An overall Gleason score is worked out by adding together two Gleason grades.

The first is the most common grade in all the samples. The second is the highest grade of what’s left. When these two grades are added together, the total is called the Gleason score.

\[
\text{Gleason score} = \text{the most common grade} + \text{the highest other grade in the samples}
\]

For example, if the biopsy samples show that:
- most of the cancer seen is grade 3, and
- the highest grade of any other cancer seen is grade 4, then
- the Gleason score will be 7 (3+4).

A Gleason score of 4+3 shows that the cancer is slightly more aggressive than a score of 3+4, as there is more grade 4 cancer.

If you have prostate cancer, your Gleason score will be between 6 (3+3) and 10 (5+5). You might only be told your total Gleason score, and not your Gleason grades.

**What does the Gleason score mean?**
The higher your Gleason score, the more aggressive the cancer, and the more likely it is to spread.

- A Gleason score of 6 suggests the cancer is slow-growing.
- A Gleason score of 7 suggests the cancer may grow at a moderate rate.
- A Gleason score of 8, 9 or 10 suggests the cancer may grow more quickly.

**Grade group**
Your doctor might also talk about your ‘grade group’. This is a new system for showing how aggressive your prostate cancer is likely to be. It is not the same as your Gleason score. Your grade group will be a number between 1 and 5. The higher the grade group, the more aggressive the cancer and the more likely it is to spread. Ask your doctor or nurse for more information about your grade group, or speak to our Specialist Nurses.

**Staging**
Staging is a way of recording how far the cancer has spread. The most common method is the TNM (Tumour-Nodes-Metastases) system.

- The **T stage** shows how far the cancer has spread in and around the prostate.
- The **N stage** shows whether the cancer has spread to the lymph nodes.
- The **M stage** shows whether the cancer has spread (metastasised) to other parts of the body.

**T stage**
The T stage shows how far the cancer has spread in and around the prostate. A DRE or MRI scan (see page 2) is usually used to find out the T stage, and sometimes a CT scan.

If you’ve been diagnosed with localised prostate cancer, your T stage will be T1 or T2.

The diagrams on the next page show the T stages T1 and T2.
**Specialist Nurses 0800 074 8383**

**Diagnosis**

**T1 prostate cancer**
The cancer can’t be felt during a DRE or seen on scans, and can only be seen under a microscope.

**T2 prostate cancer**
The cancer can be felt during a DRE or seen on scans, but is still contained inside the prostate.

- **T2a** The cancer is in half of one side (lobe) of the prostate, or less.
- **T2b** The cancer is in more than half of one of the lobes, but not in both lobes of the prostate.
- **T2c** The cancer is in both lobes but is still inside the prostate.

**T3 and T4 prostate cancer**
If your T stage is T3 or T4, this means your cancer has started to spread outside the prostate and is no longer localised prostate cancer. Your doctor will need to look at the results of other tests to find out how far it has spread. If your cancer has just started to break out of the prostate or has spread to the area just outside it, this is locally advanced prostate cancer. If your cancer has spread to other parts of your body, you will be diagnosed with advanced prostate cancer.

Read more in our booklet, **Prostate cancer: A guide for men who’ve just been diagnosed**, or our fact sheets, **Locally advanced prostate cancer** or **Advanced prostate cancer**.

**N stage**
The N stage shows whether your cancer has spread to the lymph nodes near the prostate. If you have been diagnosed with localised prostate cancer, your N stage will be either:

- **N0** No cancer can be seen in the lymph nodes.
- **NX** The lymph nodes were not looked at, or the scans were unclear.

**M stage**
The M stage shows whether the cancer has spread (metastasised) to other parts of the body, such as the bones. If you have been diagnosed with localised prostate cancer, your M stage will be either:

- **M0** The cancer hasn’t spread to other parts of the body.
- **MX** The spread of the cancer wasn’t looked at, or the scans were unclear.

For example, if your cancer is described as T2, N0, M0, it is likely that your cancer:
- is completely contained inside the prostate
- has not spread to your lymph nodes
- has not spread to other parts of your body.

**This is localised prostate cancer.**
Is my cancer likely to spread?

Your doctor may talk to you about the risk of your cancer spreading outside the prostate or coming back after treatment. To work out your risk, your doctor will look at your PSA level, your Gleason score and the stage of your cancer. Your risk will affect which treatment options are suitable for you.

Low risk
Your cancer may be low risk if:
- your PSA level is less than 10 ng/ml, and
- your Gleason score is 6 or less, and
- the stage of your cancer is T1 to T2a.

Medium risk
Your cancer may be medium risk if:
- your PSA level is between 10 and 20 ng/ml, or
- your Gleason score is 7, or
- the stage of your cancer is T2b.

High risk
Your cancer may be high risk if:
- your PSA level is higher than 20 ng/ml, or
- your Gleason score is 8, 9 or 10, or
- the stage of your cancer is T2c, T3 or T4.

What are my treatment options?

Localised prostate cancer often grows slowly and might not need treatment. You may be able to have your cancer monitored with regular check-ups instead. If you decide to have treatment, it will usually aim to get rid of the cancer.

The two ways of monitoring localised prostate cancer are:
- active surveillance
- watchful waiting.

The main treatments for localised prostate cancer are:
- surgery (radical prostatectomy)
- external beam radiotherapy
- brachytherapy.

You might also be offered high-intensity focused ultrasound (HIFU) or cryotherapy, but they are less common.

We’ve included some information about monitoring and treatments for localised prostate cancer below. Some of the treatments might not be suitable for you, so ask your doctor or nurse about your own treatment options.

How might my prostate cancer be monitored?

Active surveillance
This is a way of monitoring localised prostate cancer that’s likely to be slow-growing. The aim is to avoid unnecessary treatment in men whose cancer is unlikely to spread – so you’ll avoid or delay the side effects of treatment.

Active surveillance is suitable for men with low risk prostate cancer. It’s also sometimes suitable for men with medium risk cancer. If you have high risk prostate cancer, active surveillance won’t be suitable for you.

Active surveillance involves monitoring your cancer with regular tests, including PSA tests, biopsies and MRI scans, rather than treating it straight away. The tests aim to find any changes that suggest the cancer might need treating. If any changes are found, you’ll be offered treatment such as surgery, radiotherapy or brachytherapy. The aim of treatment will then be to get rid of the cancer completely.

Read more in our fact sheet, Active surveillance.

Watchful waiting
Watchful waiting is a different way of monitoring prostate cancer that isn’t causing any symptoms or problems. The aim is to keep an eye on the cancer over the long term. If you choose watchful waiting, you won’t have any treatment unless you get symptoms, so you’ll avoid the side effects of treatment. If you do get symptoms, you’ll be offered hormone therapy to control the cancer and help manage your symptoms.

Watchful waiting involves having fewer tests than active surveillance. It’s generally suitable for men with other health problems who may not be able to have treatments such as surgery or radiotherapy.
It might also be suitable if your prostate cancer isn't likely to cause any problems during your lifetime or shorten your life. Read more in our fact sheet, *Watchful waiting*.

If you're offered active surveillance or watchful waiting, ask your doctor to explain which one you're being offered and why. They are quite different ways of monitoring prostate cancer.

**How might my prostate cancer be treated?**

**Surgery (radical prostatectomy)**

This is an operation to remove the prostate and the cancer inside it. There are several types of surgery:

- keyhole (laparoscopic) surgery
- robot-assisted keyhole surgery (Da Vinci® Robot)
- open surgery.

Read more about surgery, including the possible side effects, in our fact sheet,*Surgery: radical prostatectomy*.

**External beam radiotherapy**

This uses high-energy X-ray beams to destroy cancer cells from outside the body.

If your prostate cancer is medium or high risk, you will be offered hormone therapy for up to six months before starting external beam radiotherapy. Delaying external beam radiotherapy to have hormone therapy won't cause any problems. The hormone therapy can make the prostate smaller and shrink the cancer, making it easier to treat.

If your cancer is medium risk, you might continue to have hormone therapy for six months after your radiotherapy. If your cancer is high risk, you may be offered hormone therapy for up to three years. Read more about hormone therapy in our fact sheet,*Hormone therapy*.

If your prostate cancer is medium or high risk, you might also be offered high dose-rate brachytherapy (see below) at the same time as external beam radiotherapy.

Read more about external beam radiotherapy, including the possible side effects, in our fact sheet,*External beam radiotherapy*.

**Brachytherapy**

This is a type of internal radiotherapy. There are two types of brachytherapy – permanent seed brachytherapy and high dose-rate (HDR) brachytherapy. It can be used with external beam radiotherapy to give higher doses of radiation to the prostate and the area just outside it.

- Permanent seed brachytherapy, also called low dose-rate brachytherapy, involves putting tiny radioactive seeds into the prostate. It can be used to treat low or medium risk localised prostate cancer.
- HDR brachytherapy, sometimes called temporary brachytherapy, involves putting a source of radiation into the prostate for a few minutes at a time. It is less common than permanent seed brachytherapy, but may be suitable for men with medium or high risk localised prostate cancer.

You may also have hormone therapy for several months before starting brachytherapy.

Brachytherapy isn’t available in all hospitals. If your hospital doesn’t offer it, your doctor may be able to refer you to one that does.

Read more about brachytherapy, including the possible side effects, in our fact sheets,*Permanent seed brachytherapy* and *High dose-rate brachytherapy*.

**High-intensity focused ultrasound (HIFU) and cryotherapy**

HIFU uses ultrasound to heat and destroy cancer cells. Cryotherapy uses extreme cold to destroy cancer cells. HIFU and cryotherapy are not available at many hospitals in the UK, but may be offered at specialist centres or as part of a clinical trial. Read more about HIFU and cryotherapy, including the possible side effects, in our fact sheets,*High-intensity focused ultrasound (HIFU)* and *Cryotherapy*. 
Clinical trials
A clinical trial is a type of medical research. Clinical trials aim to find new and improved ways of preventing, diagnosing, treating and managing illnesses. You can ask your doctor or nurse if there are any clinical trials you could take part in, or call our Specialist Nurses. You can also find details of some clinical trials for prostate cancer at www.cancerresearchuk.org

Read more in our fact sheet, A guide to prostate cancer clinical trials.

Making a decision about treatment

Do I need treatment?
This may seem like an odd question, but many localised prostate cancers grow too slowly to cause any problems or affect how long you live. So many men with localised prostate cancer will never need treatment.

If your test results show your cancer is unlikely to spread outside the prostate, you may decide to have your cancer monitored (see page 5). This means you won’t have treatment unless the cancer starts to grow or you get symptoms. Instead, you will have regular check-ups, including PSA tests, to check if your cancer might be growing.

If you’re thinking about going on active surveillance or watchful waiting, make sure you have all the information you need before you decide. Monitoring isn’t right for everyone – some men are happy to avoid treatment, but others may worry about not treating their cancer. Speak to your doctor or nurse about your own situation, or speak to our Specialist Nurses.

Choosing a treatment
Your doctor or nurse will talk you through your treatment options and help you choose the right type of monitoring or treatment for you. You might not be able to have all of the treatments listed in this fact sheet. Ask your doctor or nurse which ones are suitable for you.

What might I want to think about?
Which treatment you choose may depend on several things, including:
• how much cancer you have inside your prostate
• how quickly your cancer may be growing
• your age and general health – for example, if you have any other health problems
• what each treatment involves
• the possible side effects of each treatment
• practical things, such as how often you would need to go to hospital
• how you feel about different treatments – for example some men prefer to have their prostate removed, while others don’t want surgery
• how the treatment you choose now would affect your treatment options in the future, if your cancer comes back or spreads.

There’s no overall best treatment, and each one has its own advantages and disadvantages. All treatments can have side effects, such as urinary problems, problems getting an erection, and fatigue. The type of side effects you get will depend on the treatment you choose. Treatments will affect each man differently. You might not get all of the possible side effects, but it’s important to think about how you would cope with them when choosing a treatment.

The first treatment you have may affect which other treatments you can have in the future, if you need further treatment. For example, you can usually have radiotherapy if your cancer comes back after surgery, but having surgery after you’ve had radiotherapy is less common. Speak to your doctor or nurse about this when deciding on a treatment.

It can be hard to take everything in, especially when you’ve just been diagnosed. Make sure you have all the information you need, and give yourself time to think about what is right for you. Your doctor or nurse can help you think about the advantages and disadvantages.

It can help to write down any questions you want to ask at your next appointment. And to write down or record what’s said to help you remember it. It can also help to take someone to appointments, such as your partner, friend or family member.

If you have any questions, call our Specialist Nurses.

What will happen after my treatment?

If you decide to have treatment, you will have regular check-ups during and after your treatment to check how well it is working. You’ll have regular PSA blood tests. Ask your doctor or nurse how often you’ll have these. If your PSA level goes down this usually suggests your treatment is working.

Tell your doctor or nurse about any side effects you’re getting. There are usually ways of managing side effects.

Make sure you have the details of someone to contact if you have any questions or concerns between check-ups. This might be your specialist nurse or key worker. You can also speak to our Specialist Nurses.

Read more about care and support after treatment in our booklet, Follow-up after prostate cancer treatment: What happens next?

What is my outlook?

Many men will want to know how successful their treatment is likely to be. This is sometimes called your outlook or prognosis. No one can tell you exactly what your outlook will be, as it will depend on many things, such as the stage of your prostate cancer and how quickly it might grow, your age, and any other health problems. Speak to your doctor about your own situation.

Most localised prostate cancer is slow-growing and may not need treatment or shorten a man’s life. For many men who have treatment for localised prostate cancer, the treatment will get rid of the cancer. For some men, treatment may be less successful and the cancer may come back. If this happens, you might need further treatment.

For more information about the outlook for men with prostate cancer, visit www.cancerresearchuk.org. The figures they provide are a general guide and they cannot tell you exactly what will happen to you. Speak to your doctor or nurse about your own situation.
Dealing with prostate cancer

Being diagnosed with prostate cancer can change how you feel about life. If you or your loved one is dealing with prostate cancer you may feel scared, stressed or even angry. There is no ‘right’ way to feel and everyone reacts differently. There are things you can do to help yourself and people who can help.

How can I help myself?

- **Look into your treatment options.** Ask your nurse or doctor about any side effects so you know what to expect and how to manage them.

- **Talk to someone.** It could be someone close, or someone trained to listen, like a counsellor or your medical team.

- **Set yourself some goals and things to look forward to,** even if they’re just for the next few weeks or months.

- **Look after yourself.** Take time out to learn some techniques to manage stress and to relax, like breathing exercises or listening to music.

- **Eat a healthy and balanced diet.** It’s good for your general health and may slow down the growth of prostate cancer, or lower the risk of it coming back after treatment. Read more in our fact sheet, *Diet and physical activity for men with prostate cancer.*

- **Be as active as you can.** Take things at your own pace and don’t overdo it. Read more in our fact sheet, *Diet and physical activity for men with prostate cancer.*

Who else can help?

Your medical team

It could be useful to speak to your nurse, doctor, GP 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 others who can help.

Trained counsellors

Many hospitals have counsellors or psychologists who specialise in helping people with cancer – ask your doctor or nurse at the hospital if this is available.

Local support groups

At local support groups, men get together to share their experiences of living with prostate cancer. Some groups have been set up by local health professionals, others by men themselves.

Prostate Cancer UK services

We have a range of services to help you deal with problems caused by prostate cancer or its treatments:

- our Specialist Nurses who can answer any of your questions in confidence
- our one-to-one support service, where you can speak to someone who’s been there
- our online community, a free forum to talk about what’s on your mind
- our fatigue support telephone service delivered by our Specialist Nurses to help with extreme tiredness.

To find out more about any of the above, visit prostatecanceruk.org/get-support or call our Specialist Nurses on 0800 074 8383.
Questions to ask your doctor or nurse

You may find it helpful to keep a note of any questions you have to take to your next appointment.

What is my Gleason score?

What is the stage of my cancer?

What treatments are suitable for me? How quickly do I need to make a decision?

What are the advantages and disadvantages of each treatment? What are the side effects?

How effective is my treatment likely to be? What is the risk of my cancer coming back after treatment?

Can I see the results of treatments you’ve carried out?

Are all of the treatments available at my local hospital? If not, how could I have them?

Can I join any clinical trials?

If I have any questions or get any new symptoms, who should I contact?
More information

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 clinical trials and advice on finding a trial.

Healthtalk.org
www.healthtalk.org
Watch, listen to and read personal experiences of men with prostate cancer and other health problems.

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. Includes an online support group.

NHS Shared Decision Making
www.england.nhs.uk/rightcare/shared-decision-making
Decision aids to help people make difficult decisions about their healthcare.

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.

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 Tool Kit 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

This publication was written and edited by our Health Information team.

It was reviewed by:
- Manit Arya, Consultant Urologist, University College London Hospital and Princess Alexandra Hospital, Harlow
- Frank Chinegwundoh, Consultant Urological Surgeon, Barts Health NHS Trust
- Joe Kearney, Macmillan Uro-Oncology Clinical Nurse Specialist, Buckinghamshire Healthcare NHS Trust, Buckinghamshire
- Claire Parker, Urology Nurse Specialist, Aintree University Hospital, Liverpool
- Our Specialist Nurses
- Our Volunteers.
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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