

Localised prostate cancer



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This fact sheet is for men who have been diagnosed with cancer that is completely contained within the prostate (localised prostate cancer). It explains your test results and gives an overview of the different treatment options. If you would like more detailed information about any of the treatments mentioned in this fact sheet, read our individual treatment fact sheets in our Tool Kit information pack.

This fact sheet does not include information about locally advanced or advanced (metastatic) prostate cancer. For information on these stages of prostate cancer read our Tool Kit fact sheets, Locally advanced prostate cancer and Advanced prostate cancer.

What is localised prostate cancer?

Localised prostate cancer is prostate cancer that is contained within the prostate gland. You may also hear it called early or organ-confined prostate cancer.

Prostate cancer can behave in different ways. Many localised cancers are not aggressive and grow too slowly to cause any problems in your lifetime. However, some cancers may grow more quickly and spread to other parts of the body.

The tests described on page 2 help to give your doctor an idea of how the cancer will behave and what treatment options may be suitable for you.

If you are not sure whether your prostate cancer is localised, speak to your doctor or nurse. They can explain your test results and talk to you about your treatment options.

What tests are used to diagnose localised prostate cancer?

If you have been diagnosed with localised prostate cancer, you may have had some or all of the following tests.



- **A PSA test**

This test measures the level of a protein called prostate specific antigen (PSA) in your blood. PSA is produced by healthy prostate cells and also by prostate cancer cells.

- **A digital rectal examination (DRE)**

The doctor or nurse feels the surface of the prostate gland through the wall of the back passage (rectum). They are feeling for any hard or irregular areas that may be a sign of cancer.

- **A prostate biopsy**

Small amounts of tissue are removed from different areas of the prostate gland using thin needles. The tissue samples are sent to a laboratory to be looked at under a microscope to check for any cancer.

You may be offered other tests such as a bone scan, a magnetic resonance imaging (MRI) scan or a computerised tomography (CT) scan to find out if the cancer has spread outside of the prostate. However you may not need these tests if the results of the other tests show your cancer is unlikely to have spread.



You can read more about tests used to diagnose prostate cancer in our Tool Kit fact sheet, **How prostate cancer is diagnosed**.

Sometimes, prostate cancer is found following an operation called a transurethral resection of the prostate (TURP) which is used to treat an enlarged prostate. The prostate tissue removed during the operation is sent to a laboratory where it is checked to see if there is any cancer.

What do my test results mean?

The results of all of your tests help to give your doctor an overall picture of your cancer. They can use the results to get an idea of how quickly your cancer may grow and how far it has spread. This will help them to decide which treatment options will be suitable for you.

PSA level

All men have some PSA in their blood. A raised PSA level may show that there is a problem with your prostate but it does not necessarily mean you have prostate cancer. You may have had a PSA test which showed that you had a raised PSA level, and then had further tests which diagnosed your prostate cancer. If you have been diagnosed with localised prostate cancer, your PSA level can help to decide which treatment options will be most suitable for you. You can read more about this on page 4.

The PSA test is also used, alongside other tests, to monitor your prostate cancer if you decide not to have treatment straight away (see page 7). If you do have treatment, it is used to check how successful your treatment has been. You will have regular PSA tests after treatment. A continuous rise in your PSA level may suggest that your treatment has not been successful or the cancer has returned.

Grading

After your biopsy, a pathologist looks at the samples of your prostate tissue under a microscope. The pathologist looks at the patterns made by the cancer cells and gives them a grade from 1 to 5. This is called the 'Gleason grade'.

The pathologist may see more than one grade of cancer in the biopsy sample. The grades of the most common pattern and the pattern with the highest grade are added together to give a 'Gleason score'.

For example, if the biopsy shows that:

- most of the cancer seen is grade 3, and
- the highest grade of cancer seen is grade 4, then
- the Gleason will be 3 + 4, and the Gleason score will be 7.

Most men with prostate cancer will have a Gleason score between 6 and 10. The higher the Gleason score, the more likely the cancer is to spread.

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

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 measures the tumour.
- The N stage measures whether cancer has spread to the lymph nodes.
- The M stage measures 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. This is measured by a digital rectal examination (DRE). You may also have an MRI scan to confirm your T stage.

T1 The cancer cannot be felt or seen on scans and can only be found by looking under a microscope – localised prostate cancer.

T2 The cancer can be felt but it is contained within the prostate gland – localised prostate cancer.

T2a The cancer can be felt in half of one side (lobe) of the prostate gland, or less.

T2b The cancer can be felt in more than half of one of the lobes, but not in both lobes of the prostate gland.

T2c The cancer can be felt in both lobes but is still inside the prostate gland.

T3 The cancer can be felt breaking through the capsule of the prostate gland – locally advanced prostate cancer.

T3a The cancer has broken through the capsule but has not spread to the seminal vesicles. The seminal vesicles

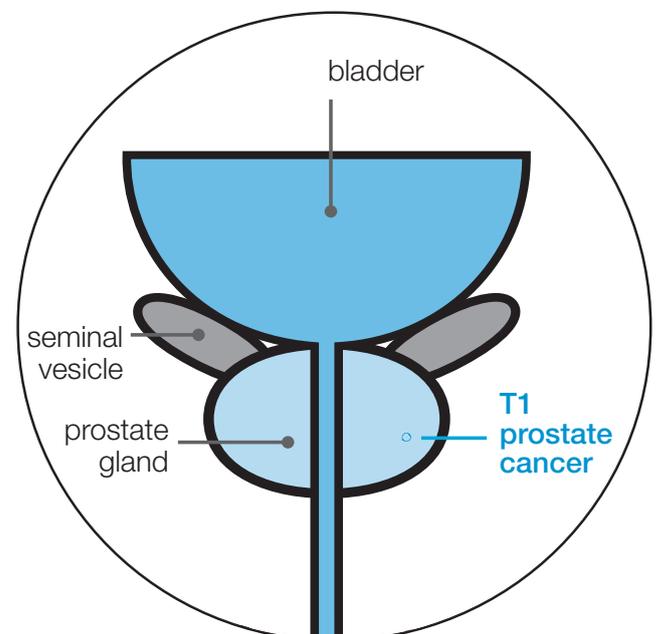
are two glands situated behind the prostate.

T3b The cancer has spread to the seminal vesicles.

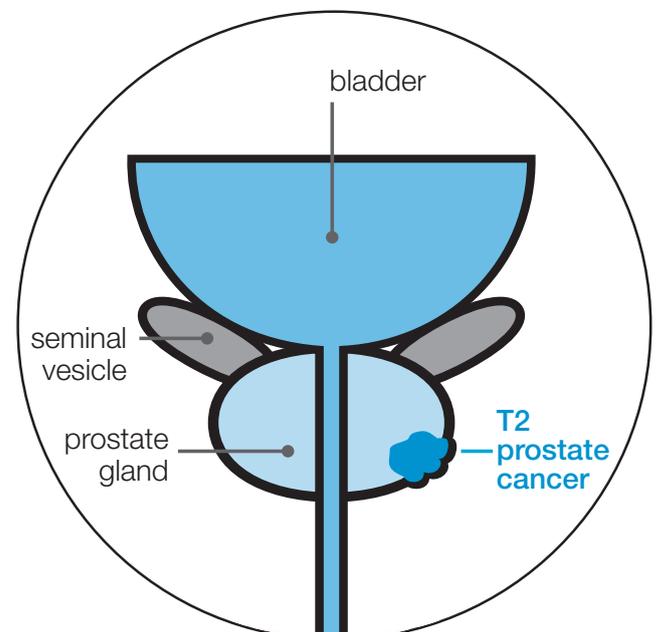
T4 The tumour has spread to nearby organs, such as the bladder neck, back passage or pelvic wall – locally advanced prostate cancer.

If your cancer is staged T1 or T2, you will be diagnosed with localised prostate cancer. The diagrams below give an example of a T1 and T2 prostate cancer.

T1 prostate cancer



T2 prostate cancer



N stage

The N stage shows whether the cancer has spread to the lymph nodes near the prostate. The lymph nodes are part of the immune system. There are lymph nodes in the groin and pelvic area, near the prostate, which can be a common place for prostate cancer to spread to.

The N stage is measured using an MRI or CT scan. You may be offered an MRI or CT scan if you are thinking about having a treatment such as radiotherapy or surgery and there is a risk that your cancer has spread to your lymph nodes.

NX The lymph nodes were not looked at.

N0 The lymph nodes do not appear to contain cancer cells.

N1 The lymph nodes appear to contain cancer cells.

M stage

The M stage shows whether the cancer has spread (metastasised) to other parts of the body. The majority of men diagnosed with localised prostate cancer will not need to have this stage measured as, if tests show that your cancer is localised, it is unlikely that it will have spread. A bone scan, MRI scan or CT scan may be used to check whether the cancer has spread to other parts of the body. If your cancer has spread (M1), you will be diagnosed with advanced prostate cancer.

MX The spread of the cancer was not looked at.

M0 The cancer has not spread to other parts of the body.

M1 The cancer has spread to other parts of the body.



If you are diagnosed with advanced prostate cancer, our Tool Kit fact sheet, **Advanced prostate cancer** provides more information.

Talk to your doctor or specialist nurse if you have any questions about the tests you have had or your diagnosis. For more detailed information about how prostate cancer is diagnosed read our Tool Kit fact sheet **How prostate cancer is diagnosed**.



What is the chance my cancer will spread?

Doctors often divide localised prostate cancers into risk groups. This is the risk of the cancer coming back after treatment. This can be used to help decide which treatment options are suitable for you. To work out your risk group, your doctor will look at your PSA level, your Gleason score and the stage of your cancer.

Low risk

Your cancer may be described as low risk if:

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

Medium risk

Your cancer may be described as 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 or T2c.

High risk

Your cancer may be described as high risk if:

- your PSA level is 20 ng/ml or higher, **or**
- your Gleason score is 8 or higher, **or**
- the stage of your cancer is T3 or T4.

What are my treatment options?

The main treatment options for localised prostate cancer are:

- active surveillance
- watchful waiting
- surgery (radical prostatectomy)
- external beam radiotherapy (EBRT)
- brachytherapy.

You may also be offered high intensity focused ultrasound (HIFU) or cryotherapy. They are not widely available in the UK and researchers are studying better ways of carrying out these treatments. They may be available in specialist centres or as part of a clinical trial. They are more commonly used to treat prostate cancer that has started to grow again after radiotherapy.

There may be more than one treatment that is suitable for you. Your choice of treatment will depend on your test results, personal preferences and a number of other factors. You can read more about choosing a treatment on page 6.

Below is a summary of the treatment options for men who have been diagnosed with localised prostate cancer. You can read more about what each treatment involves, the advantages and disadvantages and the possible side effects in our **Tool Kit** fact sheets. You can also call our Specialist Nurses on our confidential helpline.



Active surveillance

Prostate cancer may be slow growing and, for many men, may never progress or cause any symptoms. Active surveillance is a way of monitoring prostate cancer. It aims to avoid or delay unnecessary treatment in men with low risk localised prostate cancer and so avoid the side effects that can be caused by treatment.

Active surveillance involves monitoring your cancer with regular PSA tests and occasional DREs. You may also need to have further biopsies every few years. In some hospitals, you may have an MRI scan before you have a biopsy. The tests aim to detect any changes that suggest that the cancer is starting to grow more quickly.

If there is any sign that the cancer is growing more quickly, you will be offered a treatment that aims to get rid of the cancer completely, such as surgery, radiotherapy or brachytherapy.



For more information read our Tool Kit fact sheet, **Active surveillance**.

Watchful waiting

Watchful waiting is a different way of monitoring cancer that is not causing any symptoms or problems. It is generally suitable for men with other health problems who may not be fit enough for treatments such as surgery or radiotherapy. It may also be suitable for older men whose cancer is unlikely to cause problems during their lifetime.

The aim is to monitor the cancer over the long term. If you choose watchful waiting, you will not start treatment unless you get symptoms, such as problems passing urine or bone pain. You will then be offered hormone therapy to control the symptoms. Hormone therapy works by shrinking the cancer cells, wherever they are in the body.

If you choose this option your doctor or nurse can explain how your cancer will be monitored. You may be offered a PSA test every four to 12 months. You may have other tests, including a DRE and blood and urine tests, although this will vary.

If you are offered active surveillance or watchful waiting, make sure you are clear which approach you are being offered. These terms are not always used in the same way. Other terms that you may hear include 'active monitoring' and 'wait and see'. Ask your doctor to explain exactly which type of monitoring they are offering you.

Surgery (radical prostatectomy)

This is an operation to remove the whole prostate gland. There are several types of operation:

- laparoscopic (keyhole) surgery
- traditional open surgery, and
- robotic-assisted keyhole surgery.

You can read more about radical prostatectomy, the different types of operation and possible side effects in our Tool Kit fact sheet, **Surgery: radical prostatectomy**.



External beam radiotherapy (EBRT)

This treatment uses high energy X-ray beams to destroy the cancer cells. The X-ray beams are directed at the prostate from outside the body.

You may be offered hormone therapy for several months before starting radiotherapy. This is to shrink the prostate and help make the treatment more effective. In some cases you may continue hormone therapy for two to three years after radiotherapy.

 For more information about EBRT, including the possible side effects, read our Tool Kit fact sheet, **External beam radiotherapy**.

Brachytherapy

This is an internal radiotherapy treatment. There are two types of brachytherapy – permanent seed brachytherapy (also called low dose rate) and high dose rate brachytherapy (also called temporary).

Permanent seed brachytherapy involves implanting tiny radioactive seeds into the prostate. It is used to treat low or medium risk localised prostate cancer.

High dose rate brachytherapy involves inserting a source of radiation into the prostate gland for a few minutes at a time. It is suitable for men with medium risk localised prostate cancer. High dose rate brachytherapy is often used together with external beam radiotherapy to give higher doses of radiation to the whole gland as well as to the area just outside the prostate.

If there is a higher risk of your cancer spreading, brachytherapy may be used with external beam radiotherapy to give higher doses of radiation.

You may have hormone therapy to shrink the prostate for a few months before starting either type of brachytherapy.

 For more information about brachytherapy and the possible side effects, read our Tool Kit fact sheets, **Permanent seed brachytherapy**, and **High dose rate brachytherapy**.

Less common treatment options

High intensity focused ultrasound (HIFU)

HIFU uses ultrasound waves to heat and destroy the cancer cells. This treatment is not widely available in the UK, but may be available in specialist centres or as part of a clinical trial. It may be used to treat localised prostate cancer, but is more commonly used for cancer that has started to grow again after treatment with radiotherapy.

 For more information about HIFU and the possible side effects, please read our Tool Kit fact sheet, **High intensity focused ultrasound (HIFU)**.

Cryotherapy

Cryotherapy uses freezing and thawing to destroy the prostate cancer cells. It is not widely available in the UK, and may be available in specialist centres or as part of a clinical trial. It may be suitable for men with localised prostate cancer but it is more commonly used to treat men whose cancer has started to grow again after having radiotherapy or brachytherapy.

 For more information on this treatment and the possible side effects, read our Tool Kit fact sheet **Cryotherapy**.

Clinical trials

 Clinical trials are a type of medical research study that aim to find new improved ways of preventing, diagnosing and treating illnesses. If you would like to find out about taking part in a prostate cancer clinical trial ask your doctor or specialist nurse. You can read more about this in our Tool Kit fact sheet, **A guide to prostate cancer clinical trials**.

Choosing a treatment

Your doctor or nurse will explain all your treatment options and help you choose the right treatment for you. It is up to you how much you want to be involved in choosing your treatment, but your personal preference can be an important factor in deciding your treatment.

If you have been diagnosed with localised prostate cancer this means your test results suggest your cancer has not spread outside of the prostate gland. Because of this, most treatment options for localised prostate cancer aim to get rid of the cancer.

There is no overall best treatment and each treatment has its own advantages, disadvantages, and side effects.

Treatments will affect each man differently, and you may not get all of the side effects. It is important that you think about the side effects and how you would cope with them when deciding on a treatment. You can find more detailed information, including the common side effects for each treatment, in the **Tool Kit** fact sheets.



It can be hard to take everything in, especially when you have just been diagnosed with prostate cancer. In most cases there is no urgency to decide which treatment to have, and your doctor may suggest you take time to think things through before coming to a decision. It can be a good idea to write down any questions you might want to ask at your next appointment. If you need more time to think about the treatment options, just ask. You might find it useful to have someone with you at the consultation, or make notes that you can read in your own time. You can also discuss the treatments with your partner or family to help you decide.

You can read more about each treatment, including how it works and its advantages and disadvantages, in our **Tool Kit** fact sheets.



You can download these from our website or order them by calling our helpline or emailing literature@prostatecanceruk.org.

If you would like to discuss your treatment options, you can call our Specialist Nurses on our confidential helpline.



What will affect my treatment choice?

Which treatment you choose may depend on several things. You might like to discuss some of the following factors with your doctor or nurse:

- how the cancer is behaving and whether your cancer is low, medium or high risk
- your general health and age, for example, if you have any other medical conditions such as heart disease
- what the treatment involves
- the possible side effects of each treatment

- the advantages and disadvantages of the treatment, including practical things such as how often you would need to go to hospital, or how far away your nearest hospital is, and
- your personal views about different treatments, for example some men prefer to have their prostate gland removed, while others may not like the idea of surgery.

Do I need treatment?

Many prostate cancers grow very slowly and may never cause symptoms or harm in a man's lifetime. In other words, many men with prostate cancer will never need treatment.

Treatments for prostate cancer can cause side effects. If you have slow growing cancer, the side effects may be worse than any problems that might be caused by the cancer.

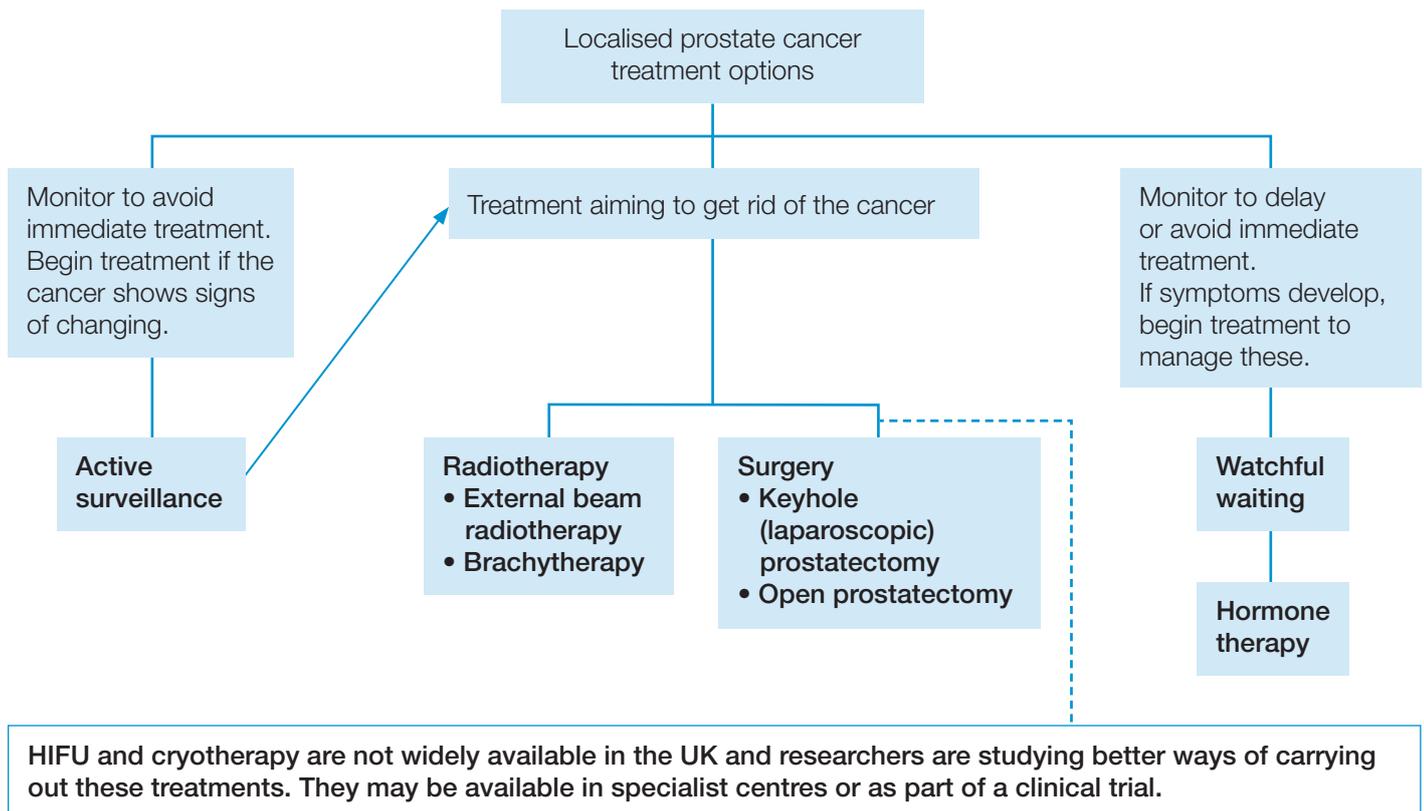
You may therefore prefer to avoid or delay treatment and any side effects, by having your cancer monitored. It is not always possible to tell how quickly your cancer will grow, but if it is monitored your doctor can check for any changes.

The two different options for monitoring prostate cancer are active surveillance and watchful waiting (page 5).

If you are given the option of having your cancer monitored, there are a few things you may wish to think about. For example, what will monitoring involve, how will you know if you need treatment, and how you would feel about living with prostate cancer that has not yet been treated. Some men are not comfortable with this and prefer to have treatment straight away.

If you do decide to have your cancer monitored but then change your mind, talk to your doctor or nurse about what treatments are available for you.

The main treatment options for localised prostate cancer are shown in the diagram on the next page (page 8).



What will happen after my treatment?

Your doctor and nurse will monitor your response to treatment to check how well it is working and whether you are experiencing any side effects. You will have regular PSA tests and appointments with your doctor or nurse. How often this happens will depend on the treatment you have had, so ask them about this. It is important to let them know about any side effects you are experiencing and how you are coping with these. There are usually ways of managing side effects.

You should be given the details of someone to contact between appointments if you have any concerns or develop any new symptoms or side effects.

What is my outlook?

After a diagnosis of localised prostate cancer, many men will want to know how successful their treatment is likely to be and what chance there is of curing their cancer. This is sometimes called your outlook or prognosis. No one will be able to tell you exactly what your outlook will be. Each cancer is different and it will depend on

many things, such as the grade and stage of your cancer, and how quickly it is growing.

For many men with localised prostate cancer, treatment will get rid of the cancer. However, for some men treatment will be less successful, and the cancer may come back again. But there are further treatments available if your cancer does come back. You can read more about these in our booklet, **Recurrent prostate cancer: A guide to treatment and support**.



Not everyone will want to know about their outlook, but if you do, speak to your doctor. They will be able to talk to you about your individual situation.

Where can I get support?

If you have been recently diagnosed with prostate cancer and are facing decisions about treatment, there is support available.

It can be an overwhelming time and you may experience a range of emotions. Your family may also find it difficult so this section may be helpful to them.

You will be given a main contact at the hospital, sometimes called a key worker. This might be a specialist nurse or another member of the team looking after you. They should be able to answer any questions or concerns you might have, as well as providing support. You and those close to you can also speak to one of our Specialist Nurses on our confidential helpline. They can help you to understand your diagnosis, treatment options and the emotional effects of cancer.



You and your family may find that talking to someone with similar experiences helps. Our support volunteers are all men and women personally affected by prostate cancer, either as a man with prostate cancer or a family member. They are trained to listen and offer support over the telephone. Call our Specialist Nurses on our confidential helpline to arrange to speak to a volunteer.



If you have access to the internet, you and your family can join our online community on our website at prostatecanceruk.org. You can share your experiences with other men and their families. There are also prostate cancer support groups across the country, where you and your family can meet other people affected by prostate cancer. You can find details on our website or ask your nurse.

If you have been diagnosed with prostate cancer, you may be worried about practical issues such as work and money. There is support available, and you can read more about this in our booklet,



Living with and after prostate cancer: A guide to physical, emotional and practical issues.

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 grade and stage?

Which of the treatment options in this fact sheet are suitable for me and why?

What does each treatment involve?

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

What are the side effects of each treatment?

What are the advantages and disadvantages of each treatment?

If I decide to have my cancer monitored, what will this involve?

Are there any clinical trials that would be suitable for me?

How successful are the treatments available to me likely to be?

When do I need to make a decision by?

After treatment, how will I be monitored and often will this be?

If I have a question, who should I contact?

More information

British Association for Counselling and Psychotherapy

www.itsgoodtotalk.org.uk

Telephone: 01455 883300

Provides information about counselling and details of therapists in your area.

Cancer Black Care

www.cancerblackcare.org.uk

Telephone: 020 8961 4151

Provides information and support to all people affected by cancer and raises awareness of cancer in black and minority ethnic communities.

CancerHelp UK

<http://cancerhelp.cancerresearchuk.org/>

Freephone: 0808 800 4040

(9am-5pm, Mon-Fri)

Part of Cancer Research UK, Cancer Help provides information about all types of cancer and a database of cancer clinical trials.

Healthtalkonline

www.healthtalkonline.org

Watch, listen to, or read personal experiences of men with prostate cancer and other medical conditions.

Macmillan Cancer Support

www.macmillan.org.uk

Freephone: 0808 808 00 00

(9am-8pm, Mon-Fri)

Provides practical, financial and emotional support for people with cancer, their family and friends.

Maggie's Cancer Caring Centres

www.maggiescentres.org

Telephone: 0300 123 1801

Provides cancer information and support centres throughout the UK where people affected by cancer can drop in to access information and support services.

NHS Choices

www.nhs.uk

Provides information and advice about medical conditions, and information on NHS health services in your area.

UK Prostate Link

www.prostate-link.org.uk

Guide to reliable sources of prostate cancer information.

About us

Prostate Cancer UK fights to help more men survive prostate cancer and enjoy a better life.

This fact sheet is part of the Tool Kit. You can order more Tool Kit fact sheets, including an

 **A-Z of medical words**, which explains some of the words and phrases used in this sheet.

All of our publications are available to download and order from the website. You can also order printed copies by calling **0800 074 8383** or emailing literature@prostatecanceruk.org

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

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Speak to our Specialist Nurses

0800 074 8383*

prostatecanceruk.org

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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



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The helpline is open Mon - Fri 10am - 4pm, Wed 7pm - 9pm

*Calls are recorded for training purposes only.

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