

Prostate cancer is a serious medical condition and is the most-common form of cancer diagnosed in the UK.

One-in-eight men will develop prostate cancer in their lifetime, and it is the UK's second mostcommon cause of cancer deaths.

About 47,600 men are diagnosed with prostate cancer each year, with around 11,600 deaths caused by the disease.

# What is the prostate gland?

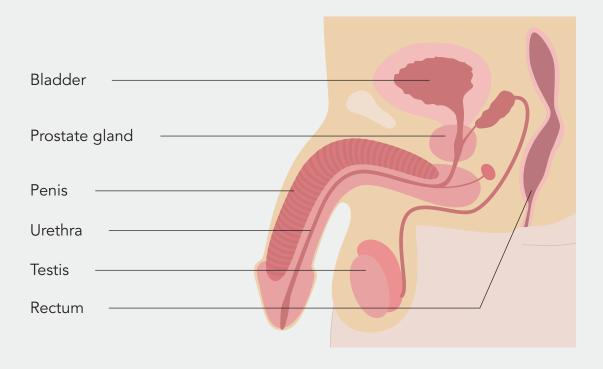
The prostate is a small sex gland at the base of the bladder. It is about the size of a walnut, but gets bigger as men get older. It provides bathing fluid to help produce healthy sperm.

The prostate surrounds the first part of the urethra, the tube which carries urine from the bladder out through the penis. The urethra also carries semen, the fluid containing sperm. Because of this, problems with the prostate gland can affect how you urinate as a well as changing your sexual function.

The prostate gland produces a protein called prostate specific antigen (PSA). A blood test can measure the level of PSA.







# What is prostate cancer?

Prostate cancer can develop when cells in the prostate start to grow in an uncontrolled way – and the cancer can grow slowly or very quickly.

Slow-growing cancers are common and may not cause any symptoms or shorten life, with many men not requiring any treatment. This means overdiagnosis can be an issue, leading to anxiety, medical tests and treatment with side effects.

## Risk factors

## Age

It predominantly affects those over 50, risk increases with age and the average age of diagnosis is 60 to 69 years.

## **Ethnicity**

One-in-four black men will get prostate cancer at some point in their lives.

## **Family History**

You are 2.5 times more likely to get prostate cancer if your father or brother has had it.

## Obesity

Being overweight or obese increases your risk for advanced cancer.



# **Symptoms**

Prostate cancer starts in the outer part of the gland and may not compress the urethra, so most men with early cancer don't have any signs or symptoms.

When symptoms do appear, they can include:

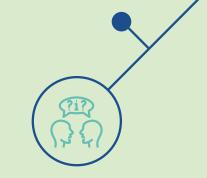
- > Getting up during the night to empty your bladder
- > Passing urine more often
- > Weaker flow, difficulty passing urine, urgency to urinate, weaker flow or not emptying your bladder completely (but these are more likely to be caused by benign enlargement of the prostate gland as we age)
- > Visible blood in the urine or semen
- > Erectile dysfunction (difficulty getting or maintaining an erection)
- > Back, hip or pelvis pain

You should you consult your GP if you have any of the risk factors or symptoms noted above.



# Diagnosis

There are a number of methods used in the diagnosis of prostate cancer, including:



## Prostate specific antigen test



Prostate specific antigen (PSA) is a protein produced by both normal and cancerous prostate cells. It aims to detect localised prostate cancer when treatment can be offered which may cure cancer or extend life. It's normal for all men to have some PSA in their blood.

A high level of PSA can be a sign of cancer, but your PSA level can also be raised in prostate conditions which are not cancerous - such as a benign enlarged prostate, urinary tract infection, or prostatitis (inflammation of the prostate).

A diagnosis of cancer is not usually made on a PSA level alone, however the higher the level of the PSA, the more likely it is prostate cancer.

If you have a raised level of PSA, you will require more testing - which may include an MRI and a biopsy.



#### Digital rectal examination

Examination of your prostate by the doctor or nurse inserting their finger through the back passage for signs of prostate cancer (hard gland with lumps), or benign enlargement (smooth enlarged gland).



## **Multiparametric MRI**

A special type of magnetic resonance imaging scan which produces a more detailed picture of your prostate gland. This information can help your doctor to decide whether you need a biopsy. It can also help your doctor work out more easily where to take the biopsies from your prostate.



## Biopsy

A biopsy will see a sample of tissue taken from the prostate – and can confirm the diagnosis of prostate cancer, providing useful prognostic information.

## Should I have a PSA test?

You have the right to request a PSA test if you are over 50 and have made an informed decision after considering the benefits and limitations.

Discuss the matter with your doctor before deciding to have the test:



### Benefits:

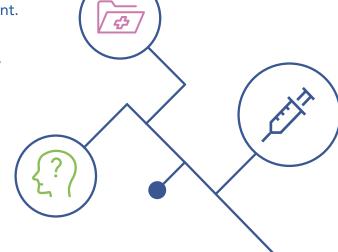
- > The test can pick up cancer before you have any symptoms.
- > It may help to pick up a fast-growing cancer at an early stage, when treatment may stop the cancer spreading.
- > Having regular PSA tests can be helpful for men who are at increased risk. This can spot any upward trend in the PSA level, which may be a sign of cancer.

### Limitations

- > The PSA test can show a normal result in a patient with prostate cancer, one-in-seven men with normal PSA will have prostate cancer – while one-in-50 will have a fast-growing cancer.
- > Two-out-of-three men with a raised PSA do not have cancer.
- > If you have a raised PSA, you may need further testing, including a biopsy which has risks including pain, infection, and blood in the urine and semen. Around two-out-of-three men who have a biopsy will not have prostate cancer.
- > Raised PSA may lead to unnecessary worry and medical tests when there is no cancer.
- > You may be diagnosed with slow-growing cancer which would not have caused any symptoms or shortened your life - but

being diagnosed with cancer may lead to worry and potentially unnecessary treatment.

> Treatment for prostate cancer can have side-effects which can affect your daily life, including urinary and bowel problems and erectile dysfunction.

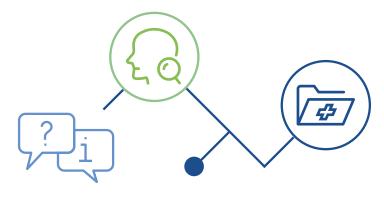






#### **Treatment**

Treatment depends on a number of factors, including how big the cancer is, whether it is slow or fast growing, whether it has spread anywhere else in the body and the patient's general health.



Usually provided under specialist care, treatment for localised cancer can include the following:

- Active surveillance also known as "watchful waiting" - for slow-growing cancers which have not spread outside the prostate gland
- > Radical prostatectomy (removal of the prostate gland)
- Hormone therapy
- > Targeted radiotherapy
- > Chemotherapy
- > Cryotherapy
- > High-intensity focused ultrasound

## **Prognosis**

There is a good survival rate for prostate cancer, and 78% of those diagnosed with the condition live for at least a further 10 years.

The five-year survival rate is around 90% for those aged up to 79, with a drop to 66% in those aged 80-99.

Survival has increased dramatically over the past four decades, thanks to an increase in testing and improved treatments.

## **Useful Links:**

Good support and advice is available online. Some of the best sources are listed below:

https://prostatecanceruk.org/

https://www.cancerresearchuk.org/aboutcancer/prostate-cancer

https://www.gov.uk/guidance/ prostate-cancer-risk-managementprogramme-overview

https://www.nhs.uk/conditions/ prostate-cancer/





