

Having a PSA blood test

To have a PSA blood test men will need to talk to their GP. **A PSA blood test on its own can help identify possible prostate cancer but is not a definitive test.**

Is a PSA blood test necessary?

National UK guidelines state that any man over the age of 50 is entitled to have a PSA blood test, provided that they understand the benefits and disadvantages of the results or their implications. Because of the higher risk it has been suggested that black men should discuss the possibility of having a PSA blood test with their GP earlier, around the age of 45.

Advantages

- ▶ It may help pick up a significant prostate cancer before a man suffers any symptoms.
- ▶ It may help pick up a potentially more aggressive forms of prostate cancer at an earlier stage.

Disadvantages

- ▶ Two thirds of men with a raised PSA do not have prostate cancer.
- ▶ It will not identify all prostate cancers. Some men with prostate cancer may have a normal PSA level.
- ▶ It cannot tell whether a prostate cancer is likely to be an aggressive or non-aggressive type.

A Digital Rectal Examination (DRE) is quick and simple to perform, a doctor inserts a gloved, lubricated finger into the rectum (back passage) to feel the prostate gland. A cancerous prostate gland may feel hard, uneven or have irregular lumps on it whereas a normal prostate will usually feel smooth and even. By performing this test it is possible to detect abnormalities such as cancer or non-cancerous enlargement of the prostate. Having this test does not affect a man's sexual well being or masculinity and can identify a potential problem quickly.

What if the PSA level or DRE is abnormal?

If the PSA blood test is abnormal or a DRE reveals an abnormality then a GP may suggest a referral to a prostate specialist (urologist) who may recommend further investigations. Having an abnormal feeling prostate with a raised PSA level is more likely to indicate the possibility of prostate cancer.

A urologist will usually recommend a special scan of the prostate to identify potential cancer and then targeted biopsies (sampling) of these areas during a minor operation..

- ▶ Avoid ejaculation or riding a bicycle for about 48 hours before having a PSA blood test as both these actions can sometimes increase the normal value giving an inaccurate result.
- ▶ Let a GP know if any abnormalities when passing urine such as a 'burning' or 'stinging' sensation or any blood in the urine have been noticed as these could indicate the presence of a possible urinary infection or other medical condition.

Prostate cancer risks

Age

Age is the most common risk factor for developing prostate cancer. The incidence rate increases sharply from the age of 55 and peaks at around the age of 70.

Family history and genes

A man with a first degree relative affected by prostate cancer such as a father or brother has roughly twice the risk of developing it and this risk is stronger and higher if a relative was diagnosed under the age of 60. The risk also increases in men who have a strong family history of female breast cancer and vice versa. This is thought to be because two genes carried by both men and women (called BRCA1 and BRCA2) increase the risk of breast cancer in women and prostate cancer in younger men.

What are genes?

Genes are chemicals that contain information and determine how a cell works. They determine who we are. Around 30,000 genes are found in each cell and these are stored in thread like structures called chromosomes. One chromosome is inherited from a person's father and one from their mother. Some cancers may develop if the genes which are passed on develop the wrong information which then causes the cell to behave differently.

Ethnicity

Prostate cancer is more common in men of direct African and African Caribbean descent and their lifetime risk is 1 in 4. Unfortunately prostate cancer can develop at a younger age in these men. Although research has been undertaken to try and find out why the risk is greater for these men we still do not know for sure. Some research has suggested that black men may have a variation in one or more of their genes which makes them more likely to develop prostate cancer.

Black men, who have a father, brother, or son with prostate cancer, should discuss this increased risk with their doctor the need for an annual DRE and PSA test starting around the age of 45.

Lifestyle

A good varied diet, with less reliance on red, processed meat may decrease the risks of certain cancers. Some food and drink has been linked with giving a possible protective effect; processed tomatoes (sauces), broccoli, fish (rich in vitamin D essential for maintaining a healthy immune system) and soya products (milk, beans etc. which contain protective plant chemicals).

Regular exercise, keeping fit and avoiding obesity also seems to be beneficial in maintaining a healthy body and possibly reducing the risk of cancer.

Orchid has a Male Cancer Helpline manned by specialist nurses on

0808 802 0010

or email helpline@orchid-cancer.org.uk

If you have any queries regarding the information contained in this quick guide please contact the Orchid Nurses on 0808 802 0010 or email: nurse@orchid-cancer.org.uk for further information and support.

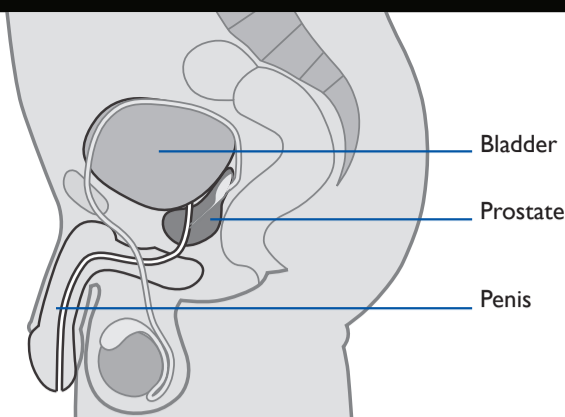
References are available on request.

To be reviewed 2025

Models featured are for illustrative purposes only.

What is the prostate gland?

The prostate gland is located just below the bladder. It is only found in men and is responsible for helping to produce the fluid in semen. The gland is tiny at birth, but grows in size after puberty due to rising levels of the male hormone, testosterone.



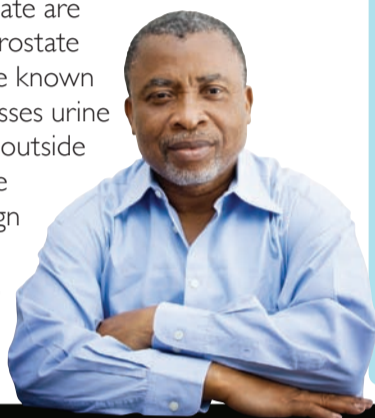
What causes prostate cancer?

Prostate cancer occurs when normal, healthy cells, which are carefully regulated, begin to reproduce uncontrollably in the prostate. In most cases this growth is slow, and cancer can go undetected for many years because it may cause very few symptoms.

What are the symptoms?

There is no single symptom to indicate the presence of prostate cancer. **In fact many men with early prostate cancer may have no symptoms at all.**

Problems with the prostate are common. Because the prostate gland surrounds the tube known as the urethra, which passes urine from the bladder to the outside of the body, any prostate disease or growth (benign or malignant) may cause problems with urination.



Symptoms of prostate cancer may include the following:

- ▶ Slow or weak flow of urine.
- ▶ Urinating more frequently or urgently than usual.
- ▶ Difficulty starting to urinate.
- ▶ Pain or burning sensation when urinating.
- ▶ Unexplained urinary infection.

These symptoms can also be caused by the prostate gland obstructing the bladder due to benign (non-cancerous) prostate enlargement which can affect the nerves and muscles which control urination.

- ▶ Difficulty getting or maintaining an erection or pain during ejaculation.
- ▶ Impotence.

These symptoms can also be caused by age, diabetes, heart or cardiovascular disease.

- ▶ Constipation, altered bowel habit.

This symptom can also be caused by age, low intake of fibre and lack of exercise.

Less common symptoms can include the following:

- ▶ Blood in the urine or semen.
- ▶ Pain in the back with no obvious cause or improvement with painkillers.

What checks are available?

There are two common methods which can be used for potentially identifying prostate cancer. These are:

- ▶ The PSA blood test
- ▶ A Digital Rectal Examination (DRE)

The PSA test - what is it?

PSA (Prostate Specific Antigen) is a substance that is made by the prostate gland. From the age of puberty, a man's prostate gland will begin to enlarge and cause an increase in PSA production.

This means that the level of PSA will increase and will vary as a man ages (see chart below). A small amount of PSA leaks into the bloodstream so a blood test can be used to measure the level of prostate activity. An abnormally high level can sometimes indicate the presence of prostate cancer or other abnormalities such as inflammation or infection.

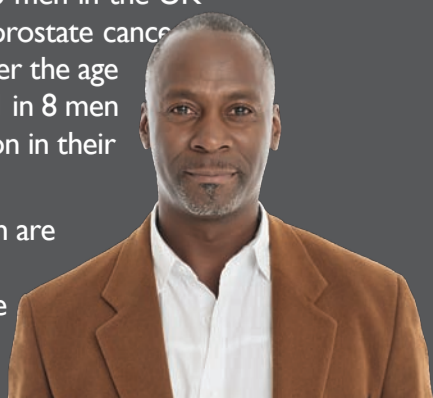
Age	Value (measured in nanograms of blood ng/ml)
40 – 49 years	Up to 2.5
50 – 59 years	Up to 3.5
60 – 69 years	Up to 4.5
70 – 79 years	Up to 6.5
80 – 89 years	6.5+

Factors that can affect PSA blood levels

Benign (normal) enlargement of prostate	Up to and possibly over 10ng/ml
Urinary infection	Up to and possibly over 20ng/ml
Inflammation of the prostate gland (prostatitis)	Up to and possibly over 20ng/ml
Urinary retention (inability to pass urine). Having a urinary catheter	Up to and possibly over 10ng/ml
Prostate biopsy or an operation to core out the prostate, Trans Urethral Resection of the Prostate (TURP)	Up to and possibly over 20ng/ml
Ejaculation in the last 48 hours	Mild elevation
Vigorous exercise	Mild elevation
Tablets to treat benign enlargement of the prostate such as Finasteride	Reduces level by half

“ Every year, over 55,000 men in the UK will be diagnosed with prostate cancer. It is common in men over the age of 50 and an estimated 1 in 8 men will develop the condition in their lifetime.

Unfortunately black men are more at risk of prostate cancer with an incidence of 1 in 4. ”



Orchid is the UK's leading charity dedicated to supporting men and their families who are affected by male-specific cancers – testicular, prostate and penile.

Established in 1996, Orchid works to improve the lives of people affected by male cancers through a world class research programme, educational campaigns and raising awareness and an extensive support service.