

Prostate Cancer and you

A quick guide to prostate cancer

Every year, over 41,000 men in the UK will be diagnosed with prostate cancer. It is the most common cancer in men over the age of 55 years, and an estimated 1 in 8 men will develop the condition in their lifetime.

Orchid has produced this leaflet to help raise awareness of prostate health.

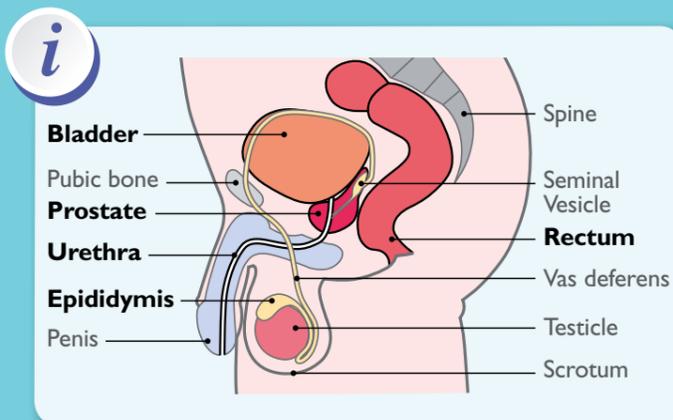


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Prostate cancer and YOU

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 in the body, begin to reproduce uncontrollably in the prostate gland. In most cases the growth is slow, and the cancer can go undetected for many years because it may cause very few symptoms.

A Digital Rectal Examination (DRE) is quick and simple to perform, and involves a doctor inserting a gloved, lubricated finger into the rectum (back passage) to feel the prostate gland. A cancerous prostate gland may sometimes feel hard, uneven or have irregular nodules on it whereas a normal prostate will usually feel smooth and even. The examination is painless but men may experience some initial discomfort.

What if the PSA level or DRE is abnormal?

If the PSA blood test comes back abnormal or a DRE reveals an abnormal feeling prostate 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 may then recommend a biopsy (sampling) of the prostate gland. If however they feel that a coexisting condition such as prostatitis or urinary infection is present they may request a further PSA blood test which should be performed after about 6 weeks. This will allow any PSA level raised due to these conditions to settle.

Tips

- ▶ Avoid ejaculation for about 48 hours before having a PSA test.
- ▶ Try to avoid cycling a week before a PSA blood test.
- ▶ 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.



Orchid has a **Male Cancer Helpline** manned by specialist nurses on **0808 802 0010** or email helpline@orchid-cancer.org.uk

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 prostate enlargement which can in turn affect the nerves and muscles which control urination.

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

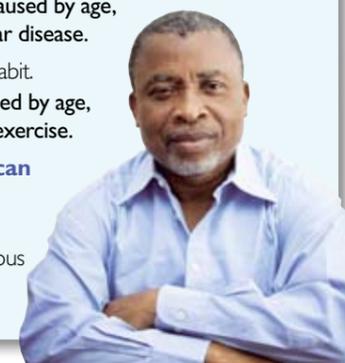
These symptoms can also be caused by age, diabetes, heart or cardiovascular disease.

- ▶ 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 pain killers.



Prostate cancer risks

Age

Age is the most common risk factor in prostate cancer and it is commonly thought that the majority of men in their 80s will have some evidence of cancerous or pre-cancerous changes in their prostate gland. The incidence rate increases sharply from the age of 55 and peaks at around the age of 74. It is rarer under the age of 50.

Family history and genes

A man with a first degree relative affected by prostate cancer has roughly twice as much 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.

Ethnicity

Men of African Caribbean descent are three times more likely to develop prostate cancer than Caucasian men. Unfortunately prostate cancer can be more aggressive in these men and develop at an earlier age.

Diet and lifestyle

Exercise helps blood and oxygen circulate to the organs keeping them healthy and strengthens the body's immune system. Walking, gardening, swimming and playing golf are all excellent ways of getting exercise.

Research has suggested that several foodstuffs may have an effect on reducing prostate activity and possibly protect against prostate cancer. However it is not clear whether eating these foods from an early age may provide this protection.

What checks are available?

There are two common methods 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 protein 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 as a man ages. A small amount of PSA leaks into the bloodstream so a PSA 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 per millilitre 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 5.5
80 - 89 years	5.5+

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 in	Up to and possibly over 10ng/ml

Factors that can affect PSA blood levels	
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	Up to 10ng/ml
Vigorous exercise (cycling)	Mild elevation
Tablets to treat benign enlargement of the prostate such as Finasteride reduce PSA level by half	Mild elevation

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. This is one reason why there is currently no screening programme for men in the UK.

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.

Advantages

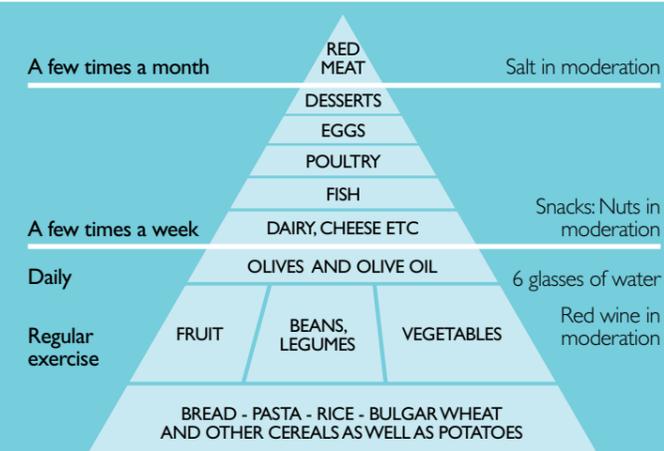
- ▶ It may help pick up a significant prostate cancer before a man suffers any symptoms.
- ▶ It may help pick up a potentially more aggressive forms of prostate cancer at an earlier stage.

Disadvantages

- ▶ Two thirds of men with a raised PSA do not have prostate cancer.
- ▶ It will not identify all prostate cancers. Up to 20% of men with prostate cancer may have a normal PSA level.
- ▶ It cannot tell you whether a prostate cancer is likely to be an aggressive or non-aggressive type.

The Mediterranean Diet

In general, it is thought a diet similar to that consumed in **Mediterranean countries** is one of the most healthy and beneficial diets for general health and may reduce the risk of cancers such as prostate cancer. The pyramid diagram below illustrates daily, weekly and monthly recommendations for this type of balanced diet.



In addition - the following substances may offer some protection against prostate cancer; pomegranate juice, green tea (6 cups a day), processed tomatoes (found in pasta and other sauces) and oily fish.

Vitamin D - is absorbed from sunlight and may help protect the body from some types of cancer. Only 15 minutes daily is needed however and prolonged exposure to the sun can cause skin cancer.