The British Association of Urological Surgeons

35-43 Lincoln's Inn Fields
London
WC2A 3PE

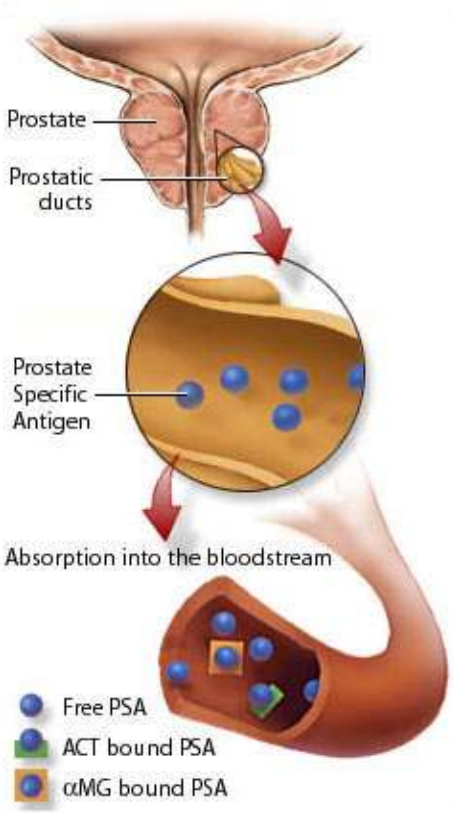
Phone: +44 (0)20 7869 6950
Fax: +44 (0)20 7404 5048
Website: www.baus.org.uk
E-mail: admin@baus.org.uk

ADVICE TO PATIENTS REQUESTING PSA MEASUREMENT

FREQUENTLY-ASKED QUESTIONS

What is the aim of this leaflet?

Prostate cancer is a serious condition. The PSA test is available to you if you want to be tested. However, experts disagree on how useful the PSA test is. This is why there is a lot of research but no national screening programme for prostate cancer in the UK. The aim of this leaflet is to give you a balanced view about the PSA test and to raise matters which you may wish to think about. We hope it will help you decide whether or not you should have the test. There is, of course, no simple right or wrong answer. You may want to talk about this information with your doctor or a trained practice nurse and. You may also wish to speak to your partner about it.



What is the prostate?

The prostate is a sex gland which lies just below the bladder in men. It provides fluid to help produce healthy sperm. The prostate surrounds the tube (called the *urethra*) which carries urine out through the penis. Because of this, problems affecting the prostate gland can affect how you urinate as well as altering your sexual function.

Prostate cancer is the commonest cancer in men and the second most common cause of male cancer death in the UK. Each year in the UK, about 35,000 men are diagnosed with prostate cancer and 10,000 die from the disease. Prostate cancer is less common in men below the age of 50 years. The average age for diagnosis is 70 to 74 years. The risk is greater for men who have a family history of prostate cancer and in black-African or black-Caribbean men. Prostate cancer is more common in developed, western countries, suggesting that there may be a link with lifestyle factors such as diet.

Prostate cancer can grow very slowly or very quickly. Slow-growing cancers are common and may not cause symptoms or shorten life.

What is a PSA test?

The PSA test is a blood test that measures the level of prostate specific antigen (PSA) in your blood. PSA is made by the prostate gland. Some of it leak into your bloodstream, depending on your age and the health of your prostate.

The PSA test is often done to detect cancer in men who have problems passing urine. It is also used to help in the treatment of men who are known to have prostate cancer. It can detect early prostate cancer before it causes symptoms or there is any abnormality of the prostate.

Although using the PSA test to screen for prostate cancer is sometimes recommended, most doctors do not think it is a good thing because it may detect very small cancers that pose no risk to your health.

A raised level may mean you have prostate cancer. About two out of three men (67%) with a raised PSA will not have prostate cancer. The higher the levels of PSA, the more likely it is to be a sign of cancer. The PSA test can also miss cancer.

Other conditions which are not cancerous (for example, benign enlargement of the prostate, prostatitis, and urinary infection) can cause higher PSA levels in the blood.

When you have a PSA test, you should not have:

- an active urinary infection or infection within the last six weeks;
- ejaculated within the last 48 hours;
- exercised heavily within the last 48 hours;
- had a prostate biopsy within the last six weeks; or
- had a digital rectal examination (DRE) within the last week.

What happens if the PSA is high?

There are usually three main possibilities after a PSA test:

- **your PSA level is not raised**
  you are unlikely to have prostate cancer and no immediate further action is needed. You may have follow-up PSA tests to confirm the result

- **your PSA level is slightly raised**
  you probably do not have cancer but you may need further tests, including follow-up PSA tests

- **your PSA is definitely raised**
  your GP will arrange for you to see a specialist for further tests to find out if you have prostate cancer

If your PSA is high, your GP will normally refer you to an urologist. The urologist will discuss whether further investigations should be done. A biopsy may be advised to see if cancer is present. This is done with a transrectal ultrasound scanner, a metal probe passed into the rectum (back passage) with the help of local anaesthetic. This

test is a little uncomfortable but does not normally need a general anaesthetic. Antibiotics are given to reduce the risk of infection.

Complications can follow this test. Bleeding can occur together with infection in the urine, the prostate or the bloodstream.

Even if the biopsy test is negative, this does not necessarily completely rule out prostate cancer. Usually, it will be necessary to have the PSA test repeated and, sometimes, further biopsies are needed. It is important to realise that, if your PSA is raised, even if you do not have cancer, it can be very difficult to rule out cancer and you may need to go on having tests for some time.

If the tests show cancer, how is it treated?

The following points are important for you to understand:

- if the biopsy does show cancer, you and your urologist will have to make a decision about how to treat it. This might involve radiotheray or an operation to remove the whole prostate gland (**radical prostatectomy**);
- sometimes, it might be best simply to do nothing immediately (**active surveillance, active monitoring or watchful waiting**). This usually involves using PSA tests and clinical examination of the prostate to see if the cancer is growing. A disadvantage is that the cancer may grow to a more advanced stage and PSA tests or biopsies may need to be repeated. You may find it difficult to cope with this uncertainty;
- surgery involves an operation to remove the prostate gland. The aim is to cure the cancer but there are possible side-effects. Up to three in every 20 men may experience some bladder problems and eight out of ten men experience difficulty in obtaining or maintaining an erection. Some men may be able to orgasm but will not be able to ejaculate so that fertility is affected;
- radiotherapy involves a course of radiation treatment on the prostate gland (external beam) or with radioactive implants (brachytherapy). The aim is to cure the cancer but there are possible side-effects. After external beam radiotherapy, half of those treated may have problems obtaining or maintaining an erection and may not be able to ejaculate. Up to three in ten men have diarrhoea & bowel problems whilst one in every 25 has bladder problems. After brachytherapy, you may have problems obtaining or maintaining an erection and you may not be able to ejaculate. Up to one in 15 men have bladder problems.

The best way of treating early prostate cancer is not clear. Treating some cancers at an early stage should prevent more serious cancer developing in the future, but the side-effects of treatment may outweigh any benefits. It is difficult to be precise about predicting what is right for each individual person.

At present there is no definite proof that using PSA tests to diagnose early cancer does save lives. Some doctors believe that it does and some that it does not. We should, however, have further information about this from clinical trials within the next two to three years.

What if there is a family history of cancer?

- you may be asking for a test because a relative has had prostate cancer. Prostate cancer can run in families, but it is only if it is a close relative (e.g. father or brother), or if two or more close relatives are affected, that the increased risk is important. This is particularly so if they have developed the disease at a young age;
- although the chance of your having prostate cancer might be higher in these circumstances, it is still fairly small (10 - 15%);
- the higher the PSA value, the more likely cancer will be found. If your PSA is greater than 10 µg/l, the risk of finding prostate cancer is 50%;
- even if you have a family history of prostate cancer, all the information given above still applies to you and must be considered. There is no real evidence that men who are relatives of patients with prostate cancer benefit from being screened;

Are there any other important points?

The benefits of PSA testing

- it may reassure you if the test result is normal;
- it may give you an indication of cancer before symptoms develop;
- it may find cancer at an early stage when treatments could be of benefit;
- if treatment is successful, the worst possible outcomes of more advanced cancer, including death, are avoided; and
- even if the cancer is more advanced and treatment is less successful, it will usually extend life.

The limitations of PSA testing

- it can miss cancer and provide false reassurance;
- it may lead to unnecessary worry and medical tests when there is no cancer;
- it cannot tell the difference between slow-growing and fast-growing cancer;
- it may make you worry by finding slow-growing cancers that may never causes symptoms or shorten your life; and
- 48 men will undergo treatment in order to save one life.

The following websites may help you to decide whether to have a PSA test:

http://www.prosdex.com
http://cancerscreening.nhs.uk/prostate/index.html

Disclaimer

This booklet includes advice from the Cancer Research UK Primary Care Education Research Group, the University of Oxford, Professor Michael Kirby (visiting Professor to the Faculty of Health & Human Sciences at the University of Hertfordshire) and other sources. As such, it is a reflection of best urological practice in the UK. You should read this booklet with any advice your GP or other healthcare professional may already have given you.

While we have made every effort to be sure the information in this booklet is accurate, we cannot guarantee there are no errors or omissions. We cannot accept responsibility for any loss resulting from something that anyone has, or has not, done as a result of the information in this booklet.

Published: March 2014, due for review: March 2015