

# What is a PSA test?

## Why might I have one?

Prostate specific antigen (PSA) is a protein produced by the prostate. The PSA test can potentially be used for screening, monitoring, or diagnosis.

## Screening for prostate cancer

The use of PSA as a screening test for prostate cancer remains controversial because trials have not shown PSA testing for early detection of prostate cancer leads to a reduction in deaths or a longer life for men with prostate cancer.

Currently, universal screening is not recommended by most authorities; recommending instead that men make an informed decision. It is possible to have prostate cancer even if the PSA is within the 'normal' range; and many men with elevated PSA levels do not have prostate cancer. There may be another cause such as prostate enlargement (known as benign prostatic hypertrophy).

Men thinking about PSA screening should discuss with their doctor the test; the information it provides, especially what it will not tell you; and what further testing may be needed. If men decide they want a PSA test for prostate cancer screening, the combination of a PSA blood test and digital rectal examination (DRE) of the prostate (where the doctor uses a gloved finger to examine the prostate from in the rectum) is preferred, as when both are done there is an improved rate of cancer detection.

## Monitoring after treatment

Successful treatment of prostate cancer by surgery leads to an undetectable PSA level. Successful radiation therapy, brachytherapy or hormone therapy leads to reduction in PSA levels. The expected pattern depends on many things, including the type and aim of treatment. Monitoring PSA can be part of the assessment of treatment success.

## Watchful waiting

Not all prostate cancer requires treatment and some men with nonaggressive cancers may decide on 'watchful waiting', including regular PSA testing every 6–12 months. A gradual PSA increase may

suggest disease progression and consideration of active treatment.

## Diagnosis of prostatitis

Prostatitis is inflammation of the prostate, usually due to infection. It causes a deep pelvic pain, discomfort on urination, a tender prostate when examined and a sudden rise in PSA levels. A return to normal PSA levels is expected 6 weeks after appropriate antibiotic treatment.

## What's involved in the test?

The most important part of the PSA test is the discussion about whether to have the test if it is for prostate cancer screening. The test involves a blood sample. No special preparation is required but the test should not be done within 24 hours of ejaculation or after bicycle riding. You should tell your doctor about any medications (including herbal treatments) you take as some can affect PSA levels.

## What does the test cost?

A Medicare rebate is available for a PSA screening test once every 12 months. Men with prostate disease can have more frequent testing and receive a Medicare rebate. There may be 'out-of-pocket' costs – ask your doctor or pathology company.

## What do I need to know?

Men need to understand that PSA is not a diagnostic test for prostate cancer. If the PSA test is elevated, to work out if the cause is cancer more invasive investigations are needed. A normal blood level does not exclude cancer.

## What do the results mean?

The 'normal' range depends on the laboratory and the man's age. In general, levels of total PSA >4.0 ng/mL are regarded as abnormal. The test may be repeated in 1–3 months if results are very different from expected but nothing else of concern is found.

## What happens next?

The next steps depend on why the test was done and what, if any, symptoms you are experiencing. Although advisable for all men, DRE is essential in

assessing a man with an elevated PSA as it provides valuable additional information.

## Screening for prostate cancer

Men requesting screening for prostate cancer with persistent PSA levels in the 'normal' range (and no concerning findings on DRE), can have annual testing with both PSA and DRE. Men with a very low PSA on annual testing are at low risk of developing prostate cancer and the testing interval could be stretched to 2 yearly after 65 years of age. Most research suggests that PSA testing for early cancer detection is not indicated beyond 75 years of age.

If the PSA test (and/or the DRE) is abnormal, follow up may involve referral to a urologist and a prostate biopsy. There are risks and complications to this procedure, which your doctor will discuss with you.

## Monitoring after treatment

Expected PSA levels and patterns vary between treatment types, but a persistent gradual PSA rise after treatment may mean recurrent disease or progression, which may need further treatment.

## Watchful waiting

Some men with an elevated PSA, especially older men, after considering all their options and their general health, decide they want regular PSA monitoring. These men need to fully understand their options for further testing and treatment.

## Management of prostatitis

This is treated with antibiotics. You will need to see your doctor for review and the PSA test should be repeated after 6 weeks to check it is returning to normal levels.

## Where can I learn more?

- Ask your doctor
- Visit [www.andrologyaustralia.org](http://www.andrologyaustralia.org)
- Visit [www.cancerhelp.org.uk/type/prostate-cancer/about/screening-for-prostate-cancer](http://www.cancerhelp.org.uk/type/prostate-cancer/about/screening-for-prostate-cancer)
- Visit [www.mayoclinic.com/health/prostate-cancer/HQ01273](http://www.mayoclinic.com/health/prostate-cancer/HQ01273).

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