
Prostate cancer testing

Summary

- Australia has no government-sponsored prostate screening program like the breast, bowel or cervical cancer screening programs.
 - Men have the option to be tested if they are at higher risk of prostate cancer or are proactive about testing and are informed of the risks and benefits.
 - There are two common tests for prostate cancer: a prostate-specific antigen blood test and a digital rectal examination. Neither of these is completely accurate.
 - A biopsy of some prostate tissue may be needed to confirm a diagnosis of prostate cancer.
 - Discuss the benefits and limitations of prostate cancer testing and treatment with your doctor before having a prostate-specific antigen blood test.
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The two common tests for prostate cancer are a digital rectal examination (DRE) and a prostate-specific antigen (PSA) blood test and neither is completely accurate.

The latest professional guidelines do not recommend DRE if being tested by a GP, although some may still offer a DRE with a PSA test. However, a specialist urologist is likely to do a DRE with a PSA test, as urologists are expert at interpreting DRE results. If the tests suggest there is a problem, your doctor may repeat the test or refer you to a specialist. A biopsy (removal of some prostate tissue) may be needed to confirm a suspected diagnosis.

Discuss testing with your doctor. It is not recommended that all men are routinely tested for prostate cancer. You will need to consider the benefits, risks and uncertainties of testing, as well as your own risk of developing the disease.

PSA test for prostate cancer

The prostate gland makes a protein called prostate specific antigen (PSA). This protein helps to nourish sperm. Normally, only tiny amounts of it enter the bloodstream.

Cancer cells in the prostate interfere with proper functioning and can cause large amounts of PSA to enter the bloodstream. Therefore, when high levels of PSA are detected in the bloodstream, this may indicate cancer.

Early prostate cancer often has no symptoms. However, high PSA levels can occur five to 10 years before the onset of prostate cancer symptoms. In such circumstances, the PSA test can help to indicate the presence of cancer at an early stage.

Other tests are needed to confirm a diagnosis because an abnormal PSA test can be due to non-cancerous causes. Equally, it is possible for a man to have a normal PSA level when cancer is present.

Normal PSA levels

The prostate slowly enlarges with age, and the production of PSA will also rise. Generally, the healthy upper limits of PSA levels in the blood increase with age. One study suggests they may be between 2 and 5.6 ng/ml (nanograms per millilitre) in men over 40 years. For men aged 50 to 69 years, it is usually recommended that a PSA level of greater than 3 ng/ml be followed up with further tests.

Other factors that influence PSA levels

The PSA blood test alone cannot diagnose prostate cancer. It is possible, although rare, to have prostate cancer without raised PSA levels in the blood. A higher-than-normal PSA level doesn't automatically indicate prostate cancer either. A high PSA level is due to cancer in around one in three cases.

PSA levels can be raised by other factors, including:

- **infection of the prostate** (prostatitis)
- **benign prostatic hyperplasia** (BPH), also known as benign prostatic enlargement (BPE).

For this reason, the PSA blood test isn't used in isolation when checking for prostate cancer.

DRE test for prostate cancer

It is not recommended that GPs routinely perform digital rectal examinations (DREs), but some may do a DRE as well as a PSA test. Urologists are likely to do a DRE. To do this test, the doctor inserts their gloved finger into your rectum (back passage) to check for enlargement of the prostate gland, or other changes.

Further tests for prostate cancer

If results of the PSA test or the DRE are abnormal, a urologist will likely recommend a biopsy, where small samples of tissue are removed from the prostate and examined.

If cancer is diagnosed, other tests may be used to check the progression of the cancer, including:

- **magnetic resonance imaging (MRI) scan of the prostate** - often done before a biopsy
- **bone scan** - to check whether or not cancer cells have spread to the bones
- **computed tomography (CT) scan** - a specialised x-ray
- **pelvic lymph node dissection** - a nearby lymph node is removed and examined to check whether or not cancer cells have entered the lymphatic system (this is only done during surgery on the prostate).

Discuss prostate cancer testing with your doctor

Medical authorities do not recommend that all men should be tested for prostate cancer. In fact, most authorities suggest that men should make their own choice about whether or not to have a PSA test. If you decide to be tested, it is recommended that it should be done every two years from 50 to 69 years of age, and only if your health is such that you expect to live for at least another seven years.

Men at high risk of prostate cancer, such as men with a family history of prostate cancer (a father or brother diagnosed at an early age), or men who have previously had an elevated test result, can start two-yearly testing from age 45. Your doctor can help you decide whether this is necessary.

While there is now some evidence that regular testing may prevent prostate cancer deaths, there are concerns that many men may be diagnosed and treated unnecessarily as a result of being screened, with a high cost to their health and quality of life (such as incontinence and impotence).

However, the option of active surveillance, where a low-risk cancer is watched closely instead of being treated, helps to lower these risks. Active surveillance is now used quite commonly in Australia for men with low-risk prostate cancer.

If you are unsure whether or not to be tested after considering the benefits and uncertainties of testing and your own risk of prostate cancer, discuss it with your doctor.

In Australia, if you choose to be tested for prostate cancer the tests are covered by Medicare.

Monitoring prostate cancer

After a diagnosis of cancer, regular PSA blood tests are used to monitor the cancer activity in a man's body. Generally, prostate cancer causes PSA levels in the blood to get higher as the tumour grows. Regular blood tests can indicate whether the tumour is shrinking or enlarging, and whether the current treatment is working or not.

Where to get help

- Your **GP (doctor)**
- Urology specialist
- **Prostate cancer treatment - Healthymale (Andrology Australia)**
- **Cancer Council Victoria** Helpline, which can link you to prostate cancer support groups Tel. **13 11 20**
- **Multilingual Cancer Information Line**, Victoria Tel. **13 14 50**
- **WeCan website** helps people affected by cancer find the information, resources and support services they

may need following a diagnosis of cancer.

This page has been produced in consultation with and approved by:

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