



PROSTATE CANCER TESTING

Each year approximately 20000 Australian men are diagnosed with prostate cancer and over 3300 men die from a direct result of prostate cancer each year. This equates to 55 men being diagnosed with prostate cancer and 9 men dying from prostate cancer each day. It is the most common cancer in men and the second leading cause of cancer death. Approximately 1 in 11 Australian men will develop prostate cancer during their lifetime.

Prostate cancer testing attempts to find prostate cancer in individuals at an **early and potentially curable** stage before symptoms have developed with the aim to treat the disease and decrease the death rate from prostate cancer. Testing for prostate cancer is performed by a PSA (Prostate Specific Antigen) blood test and a DRE (Digital Rectal Examination).

Prostate cancer is an **abnormal growth of cells** within the prostate gland. These abnormal or malignant cells grow more rapidly than normal prostate cells. These cells have the potential to break out from the prostate and spread to other parts of the body such as lymph nodes or the bones. When a **cancer spreads** to other parts of the body it is referred to as a metastasis or a **secondary tumour**.

Who should be tested for Prostate Cancer?

Current guidelines recommend that:

- All men from the age of 50 years with a life expectancy of at least 10 years should have access to a yearly PSA and DRE
- All men who have a family history of prostate cancer should have access to a yearly PSA and DRE from the age of 40
- Health conscious men from the age of 40 should have access to a baseline PSA to quantify their lifetime risk of prostate cancer and guide the frequency of subsequent testing
- Mass population based prostate cancer screening as a public health initiative by governments is currently not recommended
- Testing for prostate cancer, with a PSA blood test and DRE, should only be undertaken after informed discussion with the patient and their treating doctor regarding:
 - The current controversies regarding prostate cancer screening and early detection
 - The pros and cons of early prostate cancer detection
 - The consequences of an abnormal PSA or DRE result
 - The potential outcomes and treatments that may occur should prostate cancer be diagnosed

What is the risk of Prostate Cancer?

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Younger men have less risk of having prostate cancer than older men but if they are diagnosed with prostate cancer they have a higher chance of dying from the disease. The chance of having prostate cancer at a specific age is as follows:

The chance of having prostate cancer at a specific age	
For a man in his 40's	1 in 1000
For a man in his 50's	12 in a 1000
For a man in his 60's	45 in a 1000
For a man in his 70's	79 in a 1000

Family history is the most important risk factor for developing prostate cancer. If one first degree relative has prostate cancer then the risk of developing prostate cancer increases to 20%. If two first degree relatives have prostate cancer this risk increases to 40% and if three first degree relatives have prostate cancer then the risk increases significantly and approaches 100%.

An individual's risk of prostate cancer is based on their **age, race, family history, PSA result and DRE findings**.

What are the Risks and Benefits of Prostate Cancer Testing

Testing for prostate cancer has potential risks and benefits. In making a decision whether or not to be tested these risks and benefits must be assessed.

Potential benefits of prostate cancer testing and early diagnosis include:

- Diagnosing prostate cancer at an early and potentially curable stage when it is localised and potentially curable, prostate cancer that is diagnosed late and spread beyond the prostate is often incurable.
- Recent evidence suggests that prostate cancer screening has the potential to decrease the death rate from prostate cancer by 20%

Potential risks of prostate cancer testing and early diagnosis include:

- Some prostate cancers don't present a threat to life and treatment may result in side effects and a reduction in a patient's quality of life with potential for impotence and incontinence. This is known as overtreatment.
- Not all patients with an abnormal PSA will have prostate cancer and the only way to find out is a prostate biopsy. This results in 2 out of 3 men having an unnecessary prostate biopsy with potential side effects.