

Prostate: prostate cancer

What is the prostate gland?

The prostate gland which is present at the base of the bladder is only found in men. It is the size of a walnut and produces some of the fluid in semen. In prostate cancer some of the cells in the gland become diseased and grow into a malignant tumour which can vary in seriousness from one person to another.

How common is prostate cancer?

It is the most common cancer in Australian men and the second most common cause of death from cancer in men. It affects one in 11 Australian men and is diagnosed mainly in men over 50 years of age and becomes more prevalent with increasing age. Many older men die 'with' their prostate cancer, rather than from it.

What are the symptoms?

Most prostate cancers, especially early cases, do not produce symptoms. When symptoms develop they may include:

- frequent urination especially during the night
- difficulty starting and stopping urination
- dribbling of urine
- pain or a burning sensation on passing urine
- a feeling of incomplete emptying of the bladder
- urgency—need to get to the toilet quickly
- pain during ejaculation
- blood in the urine or semen.

What is the cause of prostate cancer?

We still do not know the exact cause. Risk factors include:

- increasing age especially over 75
- family history and genetic factors—a first degree relative (father or brother) especially if onset relatively young (before 60)
- race—more common in black men especially African-Americans
- diet (possibly)—diet high in fats and low in fish, fruit and vegetables (low nutrients e.g. selenium).

How is it diagnosed?

There are a few key tests to diagnose prostate cancer namely

- digital rectal examination (DRE)—a doctor using a gloved finger may feel if the prostate is enlarged, hard or unusual
- prostatic-specific antigen (PSA) test—this special blood test, if elevated, may indicate the presence of cancer
- biopsy—samples of prostate tissue are taken with ultrasound guidance in the rectum and examined in the laboratory.

What is the treatment?

There are a number of treatment options depending on several factors such as the man's age, physical condition, grade and stage of the cancer (early or advanced) and personal preference. The grading of the cancer is done by the Gleason Score (1 to 10) where 2 to 4 is low grade and 8 to 10 high grade.

- *Watchful waiting.* Sometimes your doctor will advise against treatment especially if minimal symptoms, low grade, slow growing and age over 75. However, you will need to be watched carefully including regular PSA tests.
- *Surgery.* Removal of the prostate called a radical prostatectomy which is aimed at curing. If this is not possible any blockage can be relieved by a transurethral resection of the prostate.
- *Brachytherapy.* A radioactive implant is placed inside the prostate to destroy cancer cells. The implant may be temporary or permanent.
- *Hormone therapy.* This reduces testosterone which is necessary to help the cancer grow. Sometimes removal of the testicles is used to cut hormone levels.

What are the screening guidelines for prostate cancer?

Screening of men without symptoms is controversial. Screening tests includes the PSA blood test, rectal examination (DRE) and ultrasound. It is recommended after 40 years of age in men with a positive family history. There is no national screening program in most countries including Australia. However, men should make their own decision after being fully informed of the potential benefits, risks and uncertainties of testing.

