
Prostate disease

Summary

- The prostate gland is a male reproductive organ that produces fluids that feed and protect sperm cells.
 - The three most common forms of prostate disease are inflammation (prostatitis), non-cancerous enlargement (BPH), and prostate cancer.
 - If you are a man in your 50s or 60s, discuss having your prostate gland checked with your doctor.
 - If you have a family history of prostate disease (or you have particular concerns), talk to your doctor about a prostate check sooner.
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The prostate gland (the prostate) is an organ of the male reproductive system. It is about the size of a walnut and is found at the base of the bladder. The thin tube that allows urine and semen to pass out of the penis (the urethra) runs through the prostate gland. Alkaline fluid produced by the prostate gland helps to nourish sperm and leaves the urethra as ejaculate (semen). The prostate undergoes two main growth spurts. The first is fuelled by the sex hormones made by the testes during puberty. This prompts the prostate to reach an average weight of 20 grams. The second growth spurt begins when men are in their thirties.

Prostate disease and ageing

Around 25 per cent of men aged 55 years and over have a prostate condition. This increases to 50 per cent by the age of 70 years. Early stages of prostate disease may have no symptoms.

If you are a man and you are in your 50s or 60s, talk to your doctor about whether you need to have your prostate gland checked and, if so, how often. If you have a family history of prostate disease (or if you have particular concerns), talk to your doctor earlier about when prostate checks might be suitable for you.

Types of prostate disease

The three most common forms of prostate disease are inflammation (prostatitis), non-cancerous enlargement of the prostate (benign prostatic hyperplasia, or BPH) and prostate cancer. A man may experience one or more of these conditions.

Inflammation of the prostate (prostatitis)

While prostatitis can affect men of any age, it is more common in younger men, aged between 30 and 50 years. The main types of prostatitis are:

- bacterial prostatitis – acute or chronic bacterial infection
- non-bacterial prostatitis – inflamed prostate, also known as chronic pelvic pain syndrome (CPPS).

In most cases, the cause of prostatitis is unknown. Bacterial prostatitis responds well to antibiotic drugs that can get into the prostate.

Non-bacterial prostatitis, or CPPS, is the most common form of prostatitis and is more difficult to manage. Symptoms vary from one man to another. There is no single test to diagnose CPPS, so your doctor will need to rule out other possible causes of your symptoms before making a diagnosis.

Possible causes of CPPS include:

- a past bacterial prostatitis infection
 - irritation from some chemicals
 - a problem with the nerves connecting the lower urinary tract
 - problems with pelvic floor muscles
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- sexual abuse
- chronic anxiety problems.

Non-cancerous enlargement of the prostate (BPH)

Non-cancerous enlargement of the prostate, or benign prostatic hyperplasia (BPH), is more common as men get older. It is not life threatening, but can significantly affect your quality of life.

The enlargement of the prostate gland (which surrounds the top of the urethra) causes the urethra to narrow, and puts pressure on the base of the bladder. This can lead to obstruction (blockage) in the flow of urine.

Obstructions usually show up as lower urinary tract symptoms that sometimes result in the urine staying in the bladder when it's supposed to be released. When this happens suddenly, it's called acute urinary retention. This is very painful and is usually relieved temporarily by inserting a thin tube (a catheter) to release the urine.

Chronic (ongoing) retention, which is less common, can lead to a dangerous, painless accumulation of urine in the bladder. An uncommon form of chronic urinary retention is associated with high bladder pressures, which can damage kidney function.

Prostate cancer

Prostate cancer typically affects men over the age of 50 years. Around 16,000 Australians are diagnosed every year. The cause remains unknown, although advancing age and family history are known to be contributing factors.

In the early stages, the cancer cells are confined to the prostate gland. With the more aggressive types of prostate cancer, cancer cells enter the vascular and lymphatic systems early and spread to other parts of the body where they develop secondary tumours, particularly in the bones.

Symptoms of prostate disease

In its earliest stages, prostate disease may or may not be associated with symptoms. The symptoms of prostate disease depend on the condition, but may include:

- difficulties urinating, such as trouble starting the flow of urine
- the urge to urinate often, particularly at night
- feeling as though the bladder can't be fully emptied
- painful urination
- blood in the urine or blood coming from the urethra independent of urination.

Blood in the urine is often due to causes not related to the prostate. Always see your doctor if you find blood in your urine.

Diagnosis of prostate disease

Prostate disease is diagnosed using a variety of tests, including:

- physical examination, including digital rectal examination (DRE), where the doctor inserts a gloved finger into your rectum to check the size of your prostate
- blood test for prostate specific antigen (PSA test; discuss this with your doctor)
- mid-stream urine (MSU) tests to look for infection or blood in the urine
- ultrasound scans and urinary flow studies
- biopsies of the prostate.

Treatment for prostate disease

Treatment for prostatitis may include antibacterial drugs and supportive treatments, depending on the type of prostatitis.

Treatment for BPH may include medications to relax the smooth muscle of the gland or to shrink the size of the prostate, and surgery to produce a permanently widened channel in the part of the urethra that passes through the prostate.

Treatment for prostate cancer is tailored to suit individual circumstances. The nature of the cancer, other health problems the person may have, and their wishes will all be taken into account.

Management approaches for prostate cancer include:

- active surveillance
- surgery – for example, prostatectomy (removal of the prostate)
- radiotherapy
- ablative treatments such as high-intensity focused ultrasound (HIFU) and NanoKnife®
- hormone treatment (androgen deprivation therapy)
- chemotherapy
- watchful waiting.

Where to get help

- Your **GP (doctor)**
- **Urologist**
- The **Cancer Council Victoria Helpline** Tel. **13 11 20**
- **Kidney Health Australia** Tel. **1800 454 363**
- **Prostate Cancer Foundation of Australia** Tel. **1800 220 099**

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