The prostate gland is a male reproductive organ that is about the size of a walnut, found at the base of the bladder. Fluid produced by this gland helps to protect and feed sperm, which come from the seminal vesicles via the ejaculatory ducts into the urethra.

The urethra is a thin tube through which urine flows from the bladder and out of the penis. It runs through the prostate gland.

The prostate gland undergoes two main growth spurts. The first is fuelled by sex hormones made by the testicles during puberty. This prompts the gland to reach an average weight of 20 grams in adulthood.

For reasons that are unclear, the second growth spurt of the prostate gland begins when men are in their 30s. It continues to enlarge with age to an average weight of 40 grams in men in their 70s.

Many men experience urinary changes as they age, which may be caused by inflammation or enlargement of the prostate gland. An enlarged prostate gland, however, does not always cause urinary problems. Troublesome urinary symptoms are rarely symptoms of prostate cancer.

**Cause of urinary problems as men age**

Many men experience urinary symptoms as they age, which may be caused by inflammation of the prostate gland (prostatitis).

In older men, symptoms may be due to a blockage in the tubes due to a benign (non-cancerous) enlargement of the prostate gland (benign prostatic hyperplasia – BPH). The most common symptom is difficulty emptying your bladder. Urinary symptoms may become bothersome enough that they require treatment.

Not all urinary symptoms are due to changes to the prostate. Also, some men have enlarged prostates and yet experience few, if any, symptoms.

**Symptoms of urinary problems**

Urinary symptoms commonly experienced with prostate problems include:

- the need to urinate frequently during the night
- urinating more often during the day
- urinary urgency – the urge to urinate can be so strong and sudden that you may not reach the toilet in time
- the urine stream is slow to start
- urine dribbling for some time after finishing urination
- a sensation that the bladder isn't fully emptied after urination
- lack of force to the urine flow, which makes directing the stream difficult
• the sensation of needing to go again soon after urinating.

Although these symptoms often do not need treatment, see your doctor if they are causing you difficulty, as they can be successfully treated.

**Urinary symptoms to be followed up**

See your doctor if you experience:

- being unable to urinate
- painful urination
- any blood in the urine at all
- any unusual discharge from the penis
- continuous or severe urinary incontinence (you can't hold your urine).

**Inflammation of the prostate gland**

Bacteria sometimes cause prostatitis (inflammation of the prostate). More commonly, the underlying cause is uncertain. Consult your doctor promptly if you experience:

- fever
- lower back pain
- pain in the groin
- urgent and frequent urination.

Treatment with antibiotics is essential for acute bacterial prostatitis. Admission to hospital is often necessary and, as with chronic (ongoing) bacterial prostatitis, specific antibacterial drugs are required for a long time.

**Problems with enlarged prostate gland**

Benign enlargement of the prostate gland (BPH) is more common as men get older. It can cause troublesome symptoms, although it doesn’t always.

The urethra passes through the prostate gland, so men may have problems urinating if the enlarged gland restricts the flow of urine. If the flow stops completely, a catheter is required to empty the bladder. It is rare for this form of acute urinary retention to cause kidney damage.

An enlarged prostate doesn’t always cause urinary problems. Studies indicate that the size of a man’s prostate gland has little influence on the type or severity of his urination problems. BPH is just one possible cause of urinary symptoms.

Another cause of urinary symptoms can be changes to the muscular wall of the bladder, which may cause spasms of the bladder or weaken the bladder, causing problems passing urine.

**Diagnosis of enlarged prostate gland and urinary problems**

If you are troubled by urination problems, see a doctor – no matter what your age. If your doctor agrees that your symptoms need further evaluation and treatment, you may need to undergo a few tests.

These may include:

- general examination – medical history and review of any health conditions including obesity, diabetes, obstructive sleep apnoea, depression and erectile dysfunction. A rectal examination may be done to check the size and shape of your prostate gland
- a urine check – to ensure the prostate is not infected
- a flow-rate check – to estimate the speed with which you pass urine
- an ultrasound examination – to assess if the bladder is emptying completely and to examine your kidneys
- urodynamics – a series of tests on the bladder to see how your urinary system is functioning may be recommended in some circumstances.

**Self-help strategies for urinary problems**
If your urination problems are simple and don't bother you very much, steps you can take at home include:

- minimising drinks such as coffee, caffeinated soft drinks and alcohol. This is especially important before bedtime, if getting up at night to pass urine is disturbing your sleep
- making changes to your diet to reduce processed foods, particularly refined carbohydrates
- increasing physical activity
- learning pelvic floor and bladder retraining exercises as they may help to ease some urinary symptoms. See your doctor for advice.

Treatment for urinary problems

If your urinary problems are caused by infection or enlargement of the prostate gland, treatment may include:

- a long course of antibacterial medication (for bacterial prostatitis) – because infection is difficult to get rid of, the antibacterial medication will need to be taken for many weeks
- medication to improve urine flow and other symptoms (for obstruction caused by an enlarged prostate)
- surgical procedures (for blockage caused by an enlarged prostate) – the type of surgery required depends on the size of the prostate and the condition of the urethra. Types of procedures include:
  - transurethral resection of the prostate (TURP)
  - transurethral incision of the prostate (TUIP)
  - laser resection of the prostate (green light laser [PVP] or holmium laser enucleation prostatectomy [HoLEP])
  - open surgery prostatectomy (for very large glands)
  - removal of prostate tissue using water jets (aqua-ablation) or steam (Rezum treatment)
- UroLift® – for men for whom medication has not been successful but their prostates are not so enlarged that they need more invasive surgery. This procedure involves the transurethral insertion of staples to separate the lobes of the prostate. It has minimal side effects and preserves ejaculatory and erectile function
- a number of other procedures that have been developed to reduce urinary symptoms. Talk to your doctor about your options.

Medication for urinary problems

Your doctor may suggest various medications to help ease your urinary problems, including:

- medications to reduce the tone of the muscles of the urethra and prostate to minimise any constriction to urine flow caused when these muscles contract
- medication to reduce the size of the prostate gland. These medications work by blocking the action of male hormones produced by the prostate gland
- medications to relax the bladder, making unwanted contractions less likely and reducing the symptoms of urgency and frequency of urination
- the over-the-counter preparation ‘saw palmetto’ (Serenoa repens) is sometimes used. This may help some men, especially if frequent urination at night is a problem.

However, recent reviews of the evidence for using saw palmetto as a treatment for mild or moderate urinary symptoms did not show any improvement, compared to no treatment, in men with BPH.

Where to get help

- Your GP (doctor)
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Urologist
- Kidney Health Australia Tel. 1800 454 363