



# BPH Prostate Enlargement

## What is the prostate?

The prostate is a small but important gland (organ) in the male reproductive system. The main role of the prostate is to make fluid that protects and gives nutrients to sperm. The prostate makes about one third of the fluid that is ejaculated (released) from the penis at orgasm (sexual climax).

## Where is the prostate?

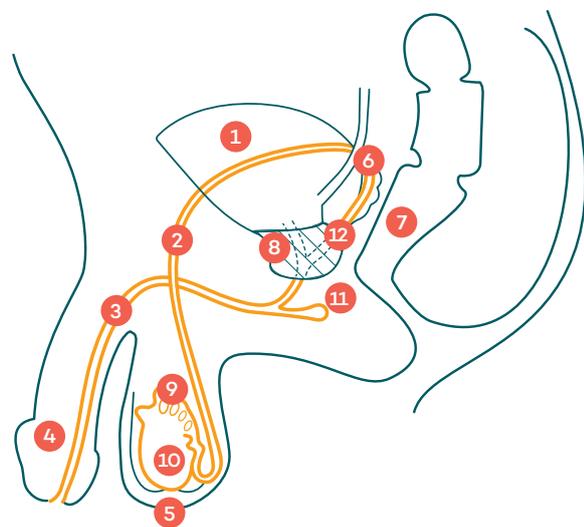
In young men the prostate is about the size of a walnut, but it gets bigger with age. The prostate sits underneath the bladder, and surrounds the top part of the urethra. Urine passes through the urethra on its way from the bladder to the penis.

## How does the prostate gland change with age?

The male sex hormone testosterone makes the prostate grow in size. As men get older, the prostate grows larger. At puberty, testosterone levels in boys start to increase and the prostate grows to about eight times its size. It continues to grow, doubling in size between the ages of 21 and 50 years, and almost doubles again in size between the ages of 50 and 80 years. The reasons for this ongoing growth are not fully understood.

## What is BPH?

BPH (benign prostatic hyperplasia) is the most common prostate disease. BPH is a non-cancerous enlargement or growth of the prostate gland. As the prostate surrounds the top part of the urethra, enlargement of the prostate makes the urethra narrower and puts pressure on the base of the bladder. Narrowing of the urethra can affect the passing of urine in a number of ways.



- |                   |                     |
|-------------------|---------------------|
| 1 Bladder         | 7 Rectum            |
| 2 Vas deferens    | 8 Prostate gland    |
| 3 Urethra         | 9 Epididymis        |
| 4 Penis           | 10 Testicle         |
| 5 Scrotum         | 11 Cowper's gland   |
| 6 Seminal vesicle | 12 Ejaculatory duct |

BPH is not usually life-threatening but symptoms can have a major effect on quality of life.

## How common is BPH?

BPH is more common in older men, usually starting after 40 years of age; it affects nearly all men at some time in their lives. Some men do not have any symptoms even though their prostate has grown larger. BPH usually becomes more of a problem over time, with symptoms getting worse if they are not treated.

SYMPTOMS OF BPH	
Lower urinary tract symptoms voiding or obstructive	<ul style="list-style-type: none"> <li>• Hesitancy a longer than usual wait for the stream of urine to begin</li> <li>• Weak and poorly directed stream of urine</li> <li>• Straining to urinate</li> <li>• Dribbling after urination has finished or an irregular stream</li> <li>• Urinary retention not all the urine is passed from the bladder causing a need to urinate more often</li> <li>• Overflow or paradoxical incontinence urine overflows from a full bladder uncontrollably even though normal urination cannot be started</li> </ul>
Lower urinary tract symptoms storage or irritative	<ul style="list-style-type: none"> <li>• Urgency an urgent feeling of needing to urinate</li> <li>• Frequency a short time between needing to urinate</li> <li>• Nocturia a need to pass urine more than twice at night.</li> </ul>
Other symptoms	<ul style="list-style-type: none"> <li>• Perineal pain pain in the perineum (the area between the scrotum and the anus)</li> <li>• Dysuria painful urination</li> <li>• Haematuria blood in the urine.</li> </ul>

## What causes BPH?

The causes of BPH are not well understood. There may be genetic links, as sons of men diagnosed with BPH are more likely to develop prostate disease.

Older age and the male sex hormone testosterone are linked with BPH but may not be the cause. It is known that BPH only happens when testosterone, which is made in the testes, is present.

## What are the symptoms of BPH?

Some men with BPH do not have many or any symptoms. Men who do have symptoms of BPH usually notice changes to their urination because BPH affects the part of the prostate that surrounds the top part of the urethra.

LUTS (lower urinary tract symptoms) is a common term used to describe a range of urinary symptoms. LUTS linked to BPH can be obstructive or irritative, but other symptoms may also happen.

Obstructive symptoms include a delay or straining when starting to urinate, and slow or dribbling flow of urine. Irritative symptoms include urgent or frequent urination during the day and night.

## How is BPH diagnosed?

If you have urinary symptoms, a doctor may do a number of things to find the cause, including: taking a medical history and description of symptoms; a physical examination; blood or urine tests; and sometimes biopsy or ultrasound. These tests are used to find out the type of prostate disease (to check if it is BPH, prostate cancer or prostatitis). BPH is more likely to be the cause of urinary problems than prostate cancer.

## What happens in a physical examination?

A digital rectal examination (DRE) is the main part of a physical examination when checking for prostate disease. The doctor places a gloved finger in the rectum (back passage) to check the size, shape and feel of the prostate.

## Are blood tests needed to diagnose BPH?

A blood test to measure the level of prostate specific antigen (PSA) in the blood is often done for prostate disease. PSA is a protein made in the prostate gland and low levels of PSA are normally present in the blood. A high PSA level in the blood almost always means there is something happening in the prostate. A PSA test is mostly used as a marker of prostate cancer risk, but BPH can also raise PSA levels two to three times higher than normal.

## Could it be prostate cancer?

If there is an abnormal PSA and/or DRE result, prostate cancer may be present. The only way to confirm whether prostate cancer is present is by prostate biopsy. The biopsy, to remove small samples of tissue from the prostate, is usually done by a urologist. The samples are sent to a pathologist to be looked at under a microscope to see if cancer is present.

## How is BPH treated?

If you have LUTS linked with BPH, when deciding on the best treatment it's important to think about how much the symptoms are bothersome or affect your quality of life.

In some cases of BPH, when the symptoms are mild, no treatment may be the best option. Oral medicines (tablets) can help men with moderate

TREATMENT OPTIONS FOR BPH	
No treatment	<ul style="list-style-type: none"> <li>• Sometimes BPH does not need medical treatment as the symptoms do not affect the man's quality of life</li> </ul>
Oral medicines (tablets)	<ul style="list-style-type: none"> <li>• Alpha-blockers</li> <li>• Phosphodiesterase-5 inhibitors (when also treating erectile dysfunction)</li> <li>• 5-alpha reductase inhibitors</li> </ul>
Surgery	<ul style="list-style-type: none"> <li>• Transurethral resection of the prostate (TURP)</li> <li>• Transurethral incision of the prostate (TUIP)</li> <li>• Open or retropubic prostatectomy</li> <li>• UroLift® System</li> </ul>
Laser treatments	<ul style="list-style-type: none"> <li>• Holmium laser enucleation (HoLEP)</li> <li>• Green light laser (PVP)</li> </ul>

symptoms. Surgery is an option for men whose BPH symptoms are severe.

You should talk with your doctor and think carefully about the risks and benefits before making a decision on a treatment.

BPH is a disease that affects quality of life and may affect relationships; including partners in decision-making can be helpful.

What treatments for BPH are available?

While TURP (transurethral resection of the prostate) is the most common and reliable surgical treatment, some newer less invasive treatments can involve shorter stays in hospital and a faster recovery. However, with these less invasive treatments there is a greater chance that the symptoms will come back and further treatment will be needed.

These treatments use different lasers to kill off, vaporise or remove the enlarged part of the prostate. As a result, pathology testing of the tissue cannot always be done. If the doctor wants to check that the enlargement is not caused by cancer, these options may not be recommended.

The 'UroLift® System' is a newer treatment for BPH being used by some urologists instead of medicines or major surgery but is not suitable for all prostate conditions.

## Can I do anything to prevent BPH?

As there are no known causes of BPH there are no known ways to prevent it. However, lifestyle changes may help to stop the symptoms of BPH getting worse and may even help to improve symptoms.

Reducing caffeine and alcohol intake (these can irritate the bladder), avoiding constipation (straining to pass stools can affect pelvic floor muscles, which are important for both bowel and bladder control), reducing body weight, and good control of diabetes and blood pressure may be helpful. Stopping smoking and increasing exercise levels may also help symptoms.

Visit [healthymale.org.au](http://healthymale.org.au) or speak to your doctor for more info.



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DATE REVIEWED: JUNE 2018

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**Australian Government**  
**Department of Health**

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