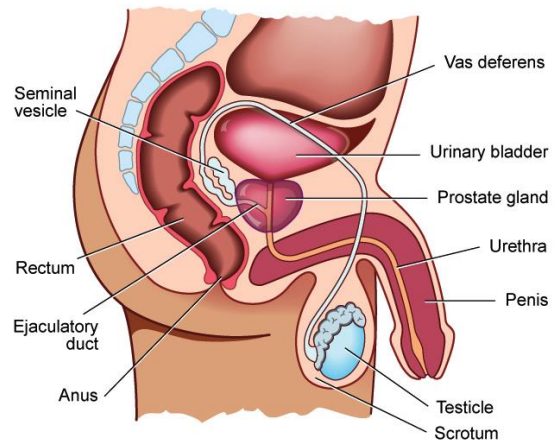


# Benign Prostatic Hyperplasia (BPH)

## The Prostate gland

- The prostate is a small, solid gland, situated beneath the bladder, surrounding the first part of the urethra
- It makes fluid that forms a major part of semen. This fluid helps the sperm flow along the ducts and provides their nutrition
- Its muscles help to propel semen into the urethra and close off the bladder during ejaculation



## How does the prostate gland change with age?

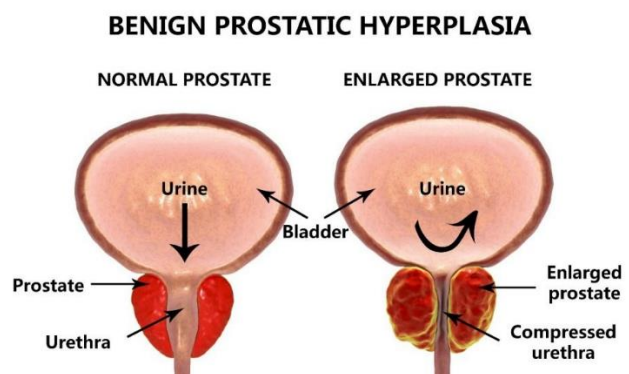
- Testosterone makes the prostate grow in size as men get older. It doubles in size between the ages of 21 and 50 years, and almost doubles again in size between the ages of 50 and 80 years. The reasons for this ongoing growth are not fully understood.

## Location of the prostate and pelvic floor muscles

- Behind the pubic bone, below the bladder and in front of the rectum
- The prostate rests on the pelvic floor muscles that stretch from one side of the pelvis to the other, and run from the tailbone at the back to the pelvic bone at the front. The pelvic floor muscles support the bladder and the bowel and surround the urinary tract and rectum

## What is BPH?

- BPH is the enlargement of the prostate that usually occurs later in life for men
- The enlargement is due to benign changes, meaning it is not cancerous. It does not cause or lead to cancer. However, BPH and prostate cancer can happen at the same time.
- BPH is common. About half of all men between ages 51 and 60 have BPH. Up to 90% of men over age 80 have it.
- As the prostate enlarges, it presses against the urethra. The bladder wall becomes thicker. One day, the bladder may weaken and lose the ability to empty fully, leaving some urine in the bladder. Narrowing of the urethra and **urinary retention** – being unable to empty the bladder fully – cause many of the problems of BPH.



- The degree of enlargement, as well as the severity of symptoms varies greatly.

## Symptoms

SYMPTOMS OF BPH	
Lower urinary tract symptoms – obstructive or voiding symptoms	<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 –irritative or storage symptoms	<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 two or more times during the 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>

## Who is at risk for BPH?

Older age, a family history of BPH, obesity, sedentary lifestyle, having erectile dysfunction and type 2 diabetes will increase a man's risk for BPH.

## Can BPH be Prevented?

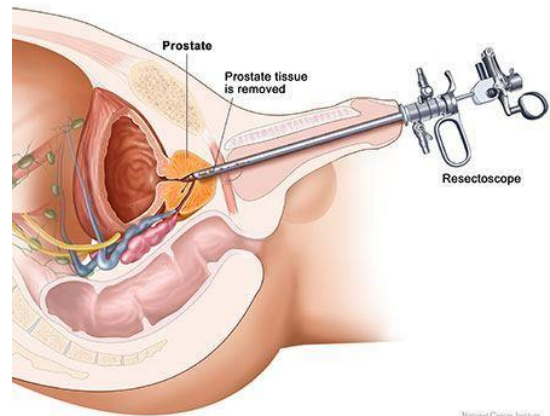
There is no sure way to stop BPH, but losing weight and eating a healthy diet that is mostly plant based (fruits, vegetables, legumes) may help. This may relate to having too much body fat, may increase hormone levels and other factors in the blood, and stimulate the growth of prostate cells. Staying active also helps control weight and hormone levels.

## Treatment Options

You and your doctor will decide together which treatment is right for you. Sometimes a mixture of treatments works best. Mild cases of BPH may not need treatment.

- Medications:
  - Alpha Blockers - relax the muscles of the prostate and bladder. They improve urine flow, reduce blockage of the urethra, and reduce BPH symptoms. They do not reduce the size of the prostate
  - 5-Alpha Reductase Inhibitors - block the production of DHT, a male hormone that can build up in the prostate and may cause prostate growth. They shrink the prostate and increase urine flow.

- Surgery:
  - TURP – most common, involves cutting away the enlarged prostate
  - Laser – dissolves or enucleates the prostate tissue
  - Urolift – enlarged prostate is held open with implanted traction device



### Diet recommendations

Eating a diet high in vegetables (tomatoes, onion, capsicum, dark leafy greens), legumes (lentils, beans, soybeans), nuts and oily fish have been shown to be helpful in reducing risk for development of BPH. Avoid eating too much animal protein (meat and dairy) and foods high in fats.

### Exercise and the pelvic floor

Having a more active lifestyle and reducing time being sedentary has also been shown to be protective against BPH. Aim for 30 minutes a day of moderate / vigorous activity.

Following surgery for BPH it is common for men to have issues with leakage (urinary incontinence). Performing exercises to strengthen the pelvic floor may help. The pelvic floor supports the organs in the pelvis and control the openings for the bladder and bowel. Contracting the pelvic floor while urinating will stop the flow of urine (do not do this regularly). Once you are aware of contracting the pelvic floor, try gently performing these contractions several times a day, allowing for complete relaxation in between. You should feel your penis shorten, testicles lift and anus tighten.

### Further resources

- Healthy Male [www.healthymale.org.au](http://www.healthymale.org.au)
- Continence Foundation of Australia [www.continence.org.au](http://www.continence.org.au)
- Urological Society of Australia and New Zealand [www.usanz.org.au](http://www.usanz.org.au)
- Andrology Australia [www.andrologyaustralia.org](http://www.andrologyaustralia.org)
- National Public Toilet Map - when you're planning an outing and don't want to be caught short [www.toiletmap.gov.au](http://www.toiletmap.gov.au)