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## Enlarged prostate (benign prostatic obstruction)

This factsheet is for people who want to know more about benign prostatic obstruction or BPO (sometimes known as benign prostatic hyperplasia or BPH).

This is an overgrowth of cells of the prostate that obstructs the flow of urine, making it difficult to pass urine.

### The prostate gland

The prostate is a gland about the size of a walnut that is only present in men. It is located just below the bladder and surrounds the urethra, the tube through which urine flows from the bladder and out through the penis. One of the main functions of the prostate gland is to produce prostatic fluid, one of the components of semen.

BPO is very common. It's estimated that by the age of 80, one in four men will have had treatment for symptoms related to BPO. Although it is not prostate cancer, the symptoms of BPO can be similar to those of prostate cancer so you should see your doctor if you start to experience problems passing urine. For more information, please see separate BUPA health factsheet, [Prostate cancer](#).

### Symptoms

You should seek medical advice if you notice:

- the need to pass urine urgently
- the need for frequent trips to the toilet, including having to get up several times in the night
- hesitancy, or difficulty in starting to pass urine
- a weak or intermittent stream
- a feeling that your bladder isn't empty after urination

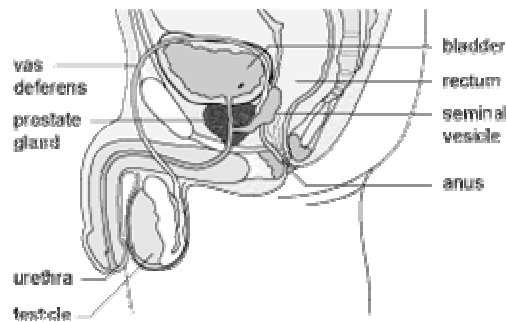


Illustration showing the prostate

### Risk factors

Although it is not known why only some men develop BPO, it is clear that advancing age is the main risk factor. You should visit your doctor promptly if you develop urinary problems because BPO is easier to treat if the treatment starts early.

### Diagnosis

Your doctor will ask you questions about your symptoms and your general health. You may be asked to fill in a urination questionnaire to help work out the severity of your symptoms.

Your doctor will examine the size and consistency of your prostate by inserting a finger into your rectum. This is called a digital rectal examination (DRE). Although this can be uncomfortable, it is not painful.

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Many men find the prospect of a DRE embarrassing, but you should bear in mind that it's a simple procedure, performed routinely by doctors.

Your doctor will also feel your abdomen to find out if your bladder is over-filled with urine. This may indicate that you are not completely emptying your bladder. This is called chronic urinary retention.

You may need to have some other tests to make sure that your urinary problems are due to BPO and not other conditions. A urine sample will be tested for infection or blood.

Blood tests, including a prostate-specific antigen (PSA) test may be carried out. This measures the amount of PSA, an enzyme produced by the prostate. When the prostate gland is enlarged, PSA may be released into the bloodstream. Various conditions can affect PSA levels including prostate cancer, BPO or prostatitis (inflammation of the prostate). Although healthy men do occasionally have a raised PSA, high levels of the enzyme can indicate a greater chance of getting prostate cancer.

Other blood tests include one to assess how your kidneys are working and another for blood sugar to check for diabetes. Both of these problems can cause urinary symptoms.

Biopsies (samples of the prostate) may be collected using a needle to check for cancerous cells.

Less common tests may include:

- urine flow tests
- ultrasound to check for urine left in the bladder and bladder stones
- urodynamic measurements using a catheter inserted into the bladder to measure the pressure of the urine and how fast it flows
- transrectal ultrasonography (TRUS) where an ultrasound probe is passed into the rectum to give a view of the prostate

## Treatment

Many men only have mild symptoms of BPO and opt for non-medical, non-surgical care called "watchful waiting". This means that no treatment is done but the situation is monitored closely. You will be given plenty of information about the condition, and advice on simple lifestyle changes that may help to improve your symptoms. These may include not drinking alcoholic or caffeinated drinks, and learning techniques to increase how much urine your bladder can hold. If your symptoms get worse, you can then opt for active treatment.

### Drug treatment

There are two main classes of prescription medicines that are used to treat BPO: alpha-blockers and 5-alpha-reductase inhibitors.

**Alpha-blockers** relax muscle fibres that control the tension in the prostate gland. They can reduce the pressure on the urethra and increase the flow of urine. They do not cure BPO but may help to alleviate some of the symptoms.

Though alpha-blockers are likely to help, they don't work for everyone. If your symptoms don't improve within a couple of months, your doctor may suggest trying an alternative treatment. There are several different alpha-blockers that may be prescribed for BPO. Some of these drugs can also be used to treat high blood pressure:

- alfuzosin (eg Xatral)
- doxazosin (eg Cardura)
- indoramin (eg Doralese)
- prazosin (eg Hypovase)
- terazosin (eg Hytrin)

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- tamsulosin (eg Flomaxtra)

Some common side-effects of alpha-blockers include tiredness, dizziness, light-headedness, weakness and headaches.

**5-alpha-reductase inhibitors** block production of a hormone called dihydrotestosterone (DHT). This can reduce the size of the prostate by up to 30 percent. Finasteride (Proscar) and dutasteride (Avodart) are examples of 5-alpha-reductase inhibitors.

5-alpha-reductase inhibitors are able to reverse BPO to some extent and so may delay your need for surgery.

Potential side-effects of these drugs include a reduced sex drive, difficulty in maintaining an erection and tender or enlarged breast tissue. These medicines are present in your semen, so you should use a condom if your partner is pregnant or likely to become pregnant.

The best results tend to be seen after at least six months of treatment.

#### **Plant extracts**

There is some evidence that *Serenoa repens* (an extract from saw palmetto) and beta-sitosterols may be beneficial. Always speak to your doctor or pharmacist before taking plant extracts with other medicines.

#### **Surgery**

There are a number of surgical options for BPO. Generally, surgery is considered for men who don't get relief from symptoms using drug treatments.

- Transurethral resection of the prostate (TURP) is the most common operation for BPO. Your surgeon inserts a thin, tube-like telescope (a resectoscope) into the urethra. The resectoscope includes a camera and specially adapted surgical instruments. This allows the surgeon to see the prostate clearly. A wire loop attachment that carries an electric current is used to "chip away" at the prostate. For further information, please see separate BUPA health factsheet, [TURP](#).
- Transurethral incision of the prostate (TUIP) may be appropriate for men who have a less enlarged prostate. It is a quicker operation than TURP and instead of "chipping away" a portion of the prostate, small cuts are made in the bladder neck and the prostate to improve the flow of urine.
- Open prostatectomy is only recommended for men whose prostate is very large. It is a major operation carried out under general anaesthesia and may require up to a week in hospital. An incision is made in the lower abdomen in order to remove part of the prostate.

#### **Risks of surgery**

As with any surgical procedure, there are risks. A common side-effect of these procedures is retrograde ejaculation - where semen passes into the bladder during orgasm instead of out of the penis. This is sometimes called a "dry orgasm". Retrograde ejaculation is usually not a problem, although it may reduce fertility. Other complications can include urinary incontinence and difficulty passing urine.

#### **Newer treatments**

Laser therapy (using a laser probe to vaporise prostate tissue) and transurethral microwave thermotherapy (using heat to remove some of the prostate tissue via a probe) are becoming more common treatments for BPO. Ask your doctor for more information.

#### **Further information**

This information was sourced from <http://www.quinn-healthcare.com/>

- Prostate Research Campaign UK  
020 8877 5840  
[www.prostate-research.org.uk](http://www.prostate-research.org.uk)

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