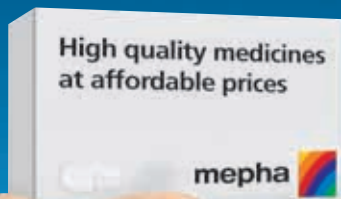


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What you should know about

BPH

(Benign Prostatic Hyperplasia)

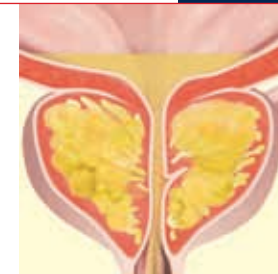
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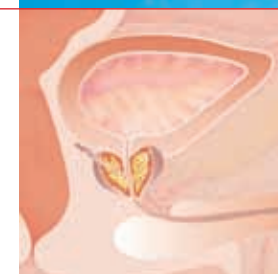
BPH is a benign enlargement of the prostate



BPH symptoms include frequent urge to urinate, difficulty urinating and dribbling of urine



The majority of men over 60 experience **BPH** symptoms. **BPH** prevalence increases with age



BPH has no direct correlation to prostate cancer



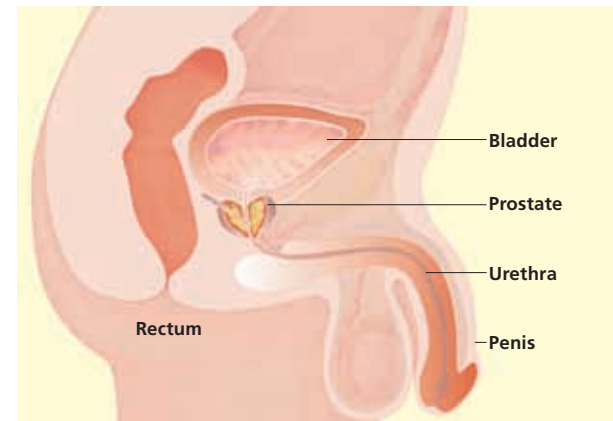
Important

- The prostate is a gland which is located below the bladder. It grows continuously and can sometimes cause problems because of its excessive size.
- Symptoms of BPH include a hesitant, interrupted, weak stream, urgency and leaking or dribbling, and more frequent urination.
- If you think you might have BPH, it is important to talk to your doctor to avoid possible complications.
- If left untreated, severe BPH can cause serious problems. Consequences of BPH such as urine retention can lead to urinary tract infections, bladder or kidney damage and incontinence.
- Not all prostate problems are caused by BPH. Other problems that can occur in this organ include acute and chronic prostatitis and prostate cancer.
- Treatment of BPH may be different for every man. It depends on how bothersome the symptoms are and on the extent of prostate enlargement.
- In some cases, minimally invasive treatment or surgical treatment may be required.

The prostate

The prostate is a walnut-sized gland located in front of the rectum and just below the bladder. The prostate surrounds the urethra, the canal through which urine passes out of the body. The main function of the prostate gland is to secrete a milky fluid (one of the components of semen) into the urethra at the point of ejaculation. The prostate fluid helps to nourish and protect the sperm during intercourse.

The prostate has two growth periods: the first period occurs during puberty and the second one around the age of 25. If prostate growth is excessive, it can cause urinary problems.



What is Benign Prostatic Hyperplasia (BPH)?



BPH (Benign Prostatic Hyperplasia) is one of the most common diseases of aging men. It is also known as enlarged prostate. The problems arising from this condition are not caused by the size of the prostate itself but by the urethra that passes through the prostate. An enlarged prostate may squeeze the urethra, thus causing urinary problems. Not everyone affected by BPH necessarily suffers from symptoms and requires medical treatment.



Normal prostate



Enlarged prostate

BPH has no direct link to prostate cancer. However, symptoms associated with the two diseases can be very similar.



Symptoms

BPH may cause the following lower urinary tract symptoms

- Increased urinary frequency
- Hesitancy
- Weakening stream
- Urgency
- Nocturia (frequent urination during the night)

Who may get BPH?

Benign prostatic hyperplasia is a male urinary disorder. It very rarely causes symptoms before the age of forty but is very common in men older than sixty. It is estimated that approximately 60% of men older than 60 years of age and up to 80% of men over 80 years of age are affected by BPH.

There are certain risk factors that make the onset of BPH more likely

- **Age**
BPH prevalence rises with age.
- **Male hormones (androgens)**
BPH is related to hormonal processes which are not yet completely understood. Nevertheless, it is clearly established that the likelihood of suffering from BPH rises with an elevated level of androgens.
- **Family history**
There is some evidence indicating that if the condition has appeared with first-grade relatives, the risk of developing BPH is higher.
- **Origin**
BPH is less common in Asians than in other ethnologies.
- **Lifestyle**
Western lifestyle is associated with a higher incidence of BPH in comparison with a traditional or rural lifestyle.





Self-assessment

Use the following point scale to answer the questions. At the end total the score from all questions.

- 0 = Not at all
 1 = Less than once in 5 times you have urinated
 2 = Less than half the time
 3 = About half the time
 4 = More than half the time
 5 = Almost always

Over the past month, how often have you

- had the sensation of not completely emptying your bladder after you finished urinating?
 - had to urinate again less than 2 hours after you finished urinating?
 - found that you stopped and started again several times when you urinated?
 - found it difficult to postpone urination?
 - had a weak urinary stream?
 - had to push or strain to begin urination?
 - had to get up to urinate from the time you went to bed at night until you got up in the morning?
- 0 = None
 1 = 1 time
 2 = 2 times
 3 = 3 times
 4 = 4 times
 5 = 5 times or more

Total score

(The American Urological Association [AUA] symptom index)

Classify your total score according to this table

Score	Severity
0–7 points	Mild
8–19 points	Moderate
20–35 points	Severe

Your score is an indication of the severity of your symptoms. It can help your doctor develop the right treatment plan. This test can also be used after a treatment to assess how well your symptoms have been relieved.

Diagnosis of BPH

BPH diagnosis can be made by a general practitioner or after referral to a urologist. Besides physical exams and the examination of your medical history, there are different tests that can be performed in order to diagnose BPH:

Digital rectal exam: The doctor examines the prostate gland by inserting a gloved, lubricated finger into the rectum.

Prostate-specific antigen blood test: PSA is a protein which is produced by the prostate and which is elevated in men who have prostate cancer or BPH.

Rectal ultrasound: If your doctor suspects prostate cancer, a rectal ultrasound may be required. This exam relies on a probe inserted into the rectum, directing sound waves at the prostate.

Urine flow study: A device may be used that measures how fast urine is flowing while urinating. A flow that is below average might be an indication of BPH.

Cystoscopy: A tube containing a lens and a light source is inserted through the urethra into the bladder.



Possible treatments



Watchful waiting

If you have an enlarged prostate but no symptoms or if your symptoms are not very bothersome, you may not need medical treatment at this time. You should, however, have regular doctor visits (once a year) to keep a close eye on the development of the symptoms. If your symptoms worsen, you should discuss the problem with your doctor who could prescribe different treatments.

Medical treatment

There are different possible medical treatments which all have their advantages and disadvantages. While every treatment may be effective in relieving the symptoms, you and your doctor should discuss which treatment is most appropriate for you. After you start your drug treatment, your doctor will have to see you more regularly in order to assess how you react to the drug and adjust dosage or switch the medication if necessary.

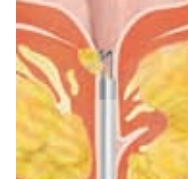
- **Alpha-blockers:** Drugs in this class are called tamsulosin, alfuzosin, doxazosin and terazosin. All these drugs relax the smooth muscles of the prostate and relieve symptoms.
- **5 alpha-reductase inhibitors:** Brand names of these drugs are finasteride and dutasteride. They work by shrinking the prostate. They will also relieve bothersome symptoms. However, relief may take some time.
- **Combination therapy:** It is possible to combine finasteride with doxazosin. The combination may be more effective than either drug alone.

- **Herbal medications:** There are many different plant extracts that are said to be effective in treating BPH. However, neither their efficacy nor their safety have been scientifically studied in most cases.

Minimally invasive treatments

If a drug treatment does not yield the desired results, it may be necessary to undergo minimally invasive procedures.

- **Transurethral microwave heat treatment:** This treatment takes about one hour and exposes the prostate to microwave heat emitted by a small microwave antenna inserted through the urethra into the prostate. The heat destroys excess prostate tissue. It does not cure BPH but reduces some of the symptoms effectively.
- **Transurethral needle ablation (TUNA):** This method also works with heat but the heat is generated by radio waves that are sent from a small needle that is inserted into the prostate through the urethra.



Possible treatments

Surgical treatments

Normally, surgery is performed only if all other methods have failed to provide the expected relief. It might, however, also be selected as the initial treatment.

- **Transurethral resection of the prostate (TURP):** In the most common surgical procedure to treat BPH, a resectoscope is inserted into the prostate through the urethra. This instrument is used to remove excess tissue, which is then flushed out with fluid. This method provides significant and quick relief of the BPH symptoms.



TURP

- **Other surgical treatments:** There are other possible surgical procedures which are less common than TURP. They include:
 - Open prostatectomy: Patients with very large prostates may have to undergo open surgery with incision of the skin.
 - Laser surgery: Laser surgery normally causes less blood loss than conventional surgery and allows a quicker recovery.

After surgery

After surgery, you may have to stay in the hospital for a few days. A catheter will be inserted into your bladder to drain the urine into a collection bag. The catheter will be removed after a few days. You may also notice some blood in your urine but it should disappear within a short time.

Before getting back to your normal life you should discuss your situation with your doctor. Wanting too much too fast can lead to setbacks. You should stay at home for a while and avoid any straining or sudden movement that could damage the incised area. There are some things that you can do in order to help healing:

- Drink lots of water.
- Make sure your diet is balanced to prevent constipation. If constipation occurs, your doctor may prescribe a laxative.
- Don't lift heavy objects.
- Don't drive or operate machinery.

Because every type of BPH surgery leaves a big part of the prostate, symptoms may reoccur even after a successful treatment. Therefore, it is important to undergo regular exams of your prostate after surgery.

BPH and sexuality

Medications used for BPH treatment may counteract male hormones. This can reduce sexual drive and also cause erectile dysfunction.

Prostatectomy may cause a condition called retrograde ejaculation which leaves the patient sterile (unable to father children). During retrograde ejaculation the semen enters into the bladder and is not expelled through the penis.

There is a correlation between an enlarged prostate and erectile dysfunction. However, many other reasons, including psychological factors, may also play a role in this type of problem.