

# What are the treatment options?

Once your doctor/urologist has completed the diagnosis he/she may prescribe one of the following treatments for:

## BPH

### Medical treatments include:

- Active surveillance. This involves careful monitoring of the prostate gland. Over 40 percent of men with mild to moderate symptoms have experienced improvement with this method. Patients may also be able to make lifestyle changes in their exercise and diet, which may help slow the progression of the disease.
- Alpha-blockers work by helping to relax the muscles at the neck of the bladder and in the prostate. By reducing the pressure on the urethra, they help to overcome the obstruction and thereby increase the flow of urine.
- 5-alpha-reductase inhibitors work by blocking the conversion of testosterone to another substance, DHT (dihydrotestosterone), which is known to play a key role in prostate growth.
- Combination therapy with an alpha-blocker or a 5-alpha-reductase inhibitor has been shown to be more effective than either agent used alone in preventing the worsening of the symptoms of BPH or the development of complications, such as acute retention (inability to pass urine) or the need for surgery.
- Other medical strategies for symptom relief in BPH include anticholinergic agents to control urinary urgency and frequency. In patients who are particularly troubled by the need to pass urine during the night (nocturia), vasopressin analogues used in addition to fluid restriction in the evenings, can be quite effective. These drugs work by reducing the amount of urine produced by the kidneys for 6-8 hours.

### Surgical treatments include:

- Transurethral incision of the prostate (TUIP). This procedure widens the urethra by making a few cuts in the prostate gland and the bladder neck, without actually removing tissue. The procedure is believed to reduce the probability of retrograde ejaculation, a complication of prostate removal, where the valve that separates the urethra from the bladder which is supposed to close during an orgasm to force the semen out of the penis no longer closes. The ejaculate travels backwards into the bladder and is expelled later with urination.
- Transurethral resection of the prostate (TURP). Used in 90 percent of all surgeries performed for BPH, TURP involves inserting an instrument called a resectoscope through the urethral opening of the penis and guiding it to the constricted portion of the urethra within the prostate gland. A wire loop of the resectoscope then cuts the prostate tissue surrounding the urethra and cauterizes the surrounding blood vessels to prevent bleeding.
- Open prostatectomy. This form of surgery, which requires an incision in the skin, is necessary if the prostate gland is greatly enlarged or if there are significant complicating factors.

A variety of minimally invasive treatment options are available nowadays.

- Laser prostatectomy - A laser guided through the urethra produces energy that is directed at the prostate tissue surrounding the constricted portion of the urethra. The laser energy vaporizes the excess prostate tissue.
- Transurethral microwave thermotherapy (TUMT) - With this technique, precisely controlled microwaves are passed through a catheter inserted in the urethral opening of the penis, guided to the prostate gland, and focused on the prostate tissue. The tissue is heated by the microwave energy, causing cell death of the excess prostate tissue.
- Transurethral needle ablation (TUNA) - Following insertion of an instrument through the urethral opening of the penis, two needles are inserted into the prostate gland. Heat energy is then passed through the needles, causing shrinkage in the surrounding prostate tissue and a corresponding increase in the flow of urine.

Your physician will be able to inform on the most appropriate treatment option since this will also depend on age, the extent of enlargement of the prostate gland, degree of bother, etc.

## Acute and chronic prostatitis

An antibiotic is often used to treat prostatitis caused by an infection. Because we do not understand what causes prostatitis without infection, it can be hard to treat.

## Prostate cancer

There are a variety of treatment options for every stage of prostate cancer. To decide on treatment for an individual patient, doctors categorise prostate cancers as organ-confined (localised to the gland), locally advanced (a large prostate tumour or one that has spread not too far from the primary tumour), or metastatic (tumour cells migrate far from the original site and create multiple new cancer sites). The treatment options for organ-confined prostate cancer or locally advanced prostate cancer usually include surgery, radiation therapy, hormonal therapy, cryotherapy (the application of extreme cold to destroy abnormal or diseased tissue), combinations of some of these treatments, and watchful waiting. It is beyond the scope of this brochure to discuss all these options. For more information please contact your urologist.

Illustrations are a courtesy of Novartis Oncology

For more information go to  
[www.urologyweek.org](http://www.urologyweek.org)



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# A prostate check is as simple as checking oil...



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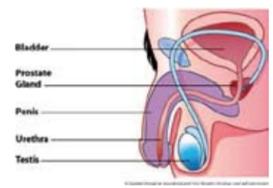
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# The prostate: its anatomy, conditions and possible treatments

Are you over 50 years old? Do you have to go to the bathroom frequently, especially at night? Do you experience unexplained weight loss? Do you have pain passing urine? In case you answered any of these questions affirmatively, please read on and find out more about what might be happening to your prostate gland.

## What is the prostate?

The prostate is a small gland about the size and shape of a walnut. It lies below the bladder and surrounds the upper part of the urethra – the tube that carries urine and semen out through the penis. The prostate gland produces a thick clear fluid that mixes with sperm to form semen.

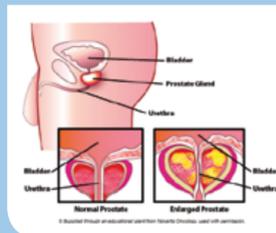


## Conditions affecting the prostate

### Benign Prostatic Hyperplasia

As a man gets older, his prostate gets larger, and although this is a natural process, it may restrict the flow of urine. An enlarged prostate is called benign prostatic hyperplasia (BPH). It is so common that it has been said that “all men will have an enlarged prostate if they live long enough. A small amount of prostate enlargement is present in many men over age 40 and more than 90% of men over age 80.

One symptom of BPH is the need to get up more often at night to urinate. Other symptoms include difficulty in starting the urine flow (hesitation) and dribbling after urination ends. The volume and strength of the urine stream may decrease.



### Acute and chronic prostatitis

Chronic prostatitis is a common inflammation of the prostate gland. It is estimated that as many as 35% of men may have chronic prostatitis at one time or another in their lives.

When part of your body is inflamed it is red, hot and sore. Chronic prostatitis can make urinating difficult or painful. It can make you have to urinate more often. It can also give you a fever, lower-back pain or pain in your groin. It may make you less interested in having sex or unable to get an erection or maintain it long enough for successful sexual intercourse.

Acute prostatitis is much more uncommon. Both acute and chronic prostatitis are easy to confuse with other infections of the urinary tract.

### Prostate cancer

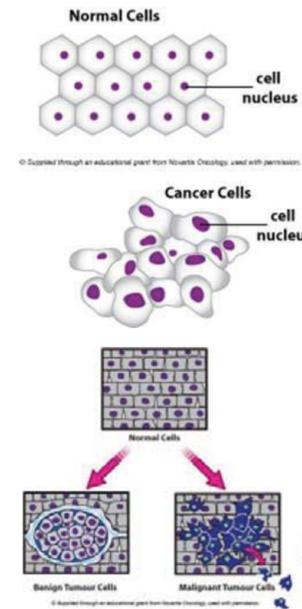
Prostate cancer is a disease that affects the cells of the prostate gland

#### What is cancer?

The human body is made up of millions of tiny cells that are smaller than a pinhead.

All cells – apart from our brain cells – have a cell cycle; new cells are produced where one cell divides and splits up. These new cells are needed to replace those cells that can no longer function and die off.

In healthy cells, cell growth and division is usually regular and well controlled. But sometimes this process gets out of control and cells keep dividing when there is no need to –beyond tissue maintenance and renewal – and a lump is formed which is called a tumour.



#### Benign and malignant tumours

Tumours can be benign or malignant. The cells in a benign tumour do not travel to other parts of the body, but as the tumour gets bigger, it can cause problems by pressing on surrounding tissues and organs.

A malignant tumour is called cancer.

A primary tumour indicates the site where the cancer starts but these cancer cells may migrate to nearby tissues. This is called local spread. The cells take up more and more space and may push their way into healthy parts of the areas around the tumour and cause damage.

Cancerous prostate tumours can block the flow of urine and, if untreated, can spread to other parts of the body. In many men, prostate cancer grows slowly and does not cause any problems until it has spread beyond the prostate gland. In some men, however, the cancer grows more quickly. It is important to diagnose prostate tumours at an early stage, have the aggressiveness of the tumour assessed and treated accordingly before the cancer spreads.

Prostate cancer is the first or second most common cancer in men in developed countries and the third most common cancer globally.

Most diseases will cause symptoms, however, prostate cancer may not, and sometimes only at a more advanced stage.

## Who is at risk?

The risk factors are:

- increasing age; the older you are, the greater the risk. All men above the age of 50 have an increased risk of prostate cancer;
- family history; if a close relative had prostate cancer your risk may be higher;
- ethnicity; among African-American men prostate cancer is more common than in Caucasian or Asian men;
- diet; a diet high in animal fat and low in fruit, vegetables and fish may increase the risk.

In addition, there are a number of warning signs that may indicate a prostate disease. Try not to worry if you develop any of them, but do consult your physician/urologist:

- difficulty or pain in passing urine;
- frequent trips to the bathroom, especially at night;
- having to rush to the toilet to pass urine;
- blood in the urine or semen;
- impotence;

There is consensus among physicians that men over 50 should consider having an annual check-up.

# What will happen at the doctor's?

Your doctor/urologist will ask about your symptoms and may suggest a blood test. This blood test will inform the doctor about the level of a protein called PSA (prostate specific antigen) in your bloodstream. High levels of PSA, which is produced by the prostate, are a first indication that further tests may be needed. High PSA levels, however, may be brought about by a range of different causes, and this test is therefore not meant to provide a diagnosis of cancer. The doctor may do a physical examination to see if the prostate gland is enlarged. If your PSA level is high and the prostate gland feels irregular, further tests may be needed.

A digital rectal examination (DRE) is one of them. During the examination, the doctor will insert a gloved finger into the rectum and feel the prostate for hard, lumpy or abnormal areas. The test takes only a few minutes to complete.

A combination of an elevated PSA test and abnormal findings during a DRE will likely result in further evaluation. Common investigational methods are making an ultrasound image of the prostate and taking biopsies.

Prostate ultrasound involves a probe about the size of a finger which is inserted into the rectum. This probe produces high-frequency sound waves that bounce off the surface of the prostate. The sound waves are recorded and transformed into video or photographic images of the prostate gland. The probe can provide images at different angles to help your doctor estimate the size of your prostate and detect any abnormal growths.

Prostate biopsies are carried out under transrectal ultrasound imaging (a probe is inserted into the rectum) to guide several small needles through the rectum wall into areas of the prostate where abnormalities are detected. The needles remove a tiny amount of tissue and these tissue samples are analyzed in a laboratory. The results will help doctors diagnose disorders and diseases in the prostate. If cancer is identified the doctor will be able to grade the cancer and determine its aggressiveness or likelihood of spreading.

