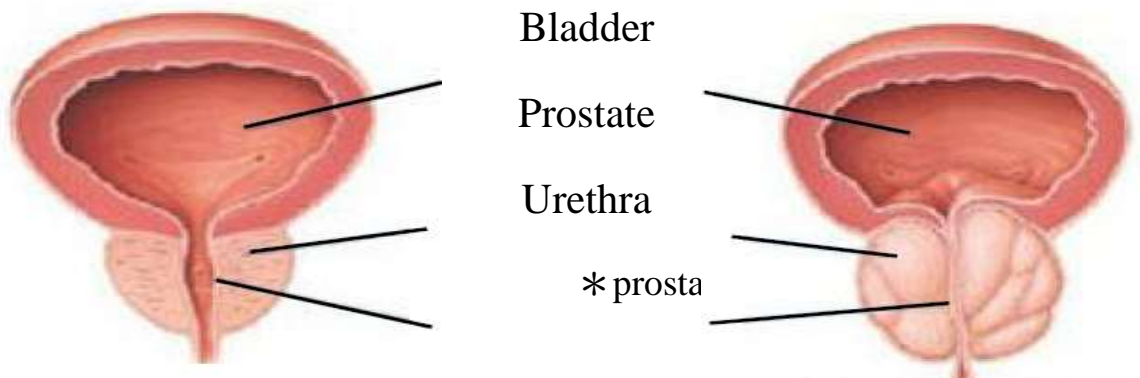




## What is benign prostatic hyperplasia

### 1. Introduction :

Prostate is a part of male reproductive system, located at the outlet of the bladder and surrounded the urethra(Figure 1). As men aging, the prostate gland tissue will hypertrophy gradually, and then the hyperplasia tissue will inwardly pressure to the urethra, causing urinary tract stenosis and dysuria. This phenomenon we called "prostate hypertrophy , "commonly known as" enlarged prostate. " According to the Bureau of Health Promotion, about 50% of male over fifty years old have dysuria issue, with age the incidence become higher, thus almost over eighty years old male suffer from prostate hypertrophy.



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All information above has been reviewed by genitourinary specialists  
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### 2. The symptoms of prostatic hyperptrophy :

- (1)Urinate difficulty or urinate forcefully to empty the urine.
- (2)Urinate interruptedly and slowly: when you urinate the urine flow is very weak, sometimes is discontinuous.
- (3)After urinating you still have voiding sense and urine drops incessantly.
- (4)You often have feeling about urinary urgency, even suffering from incontinence.
- (5)After urinating you still feel urgency, and the bladder can't be emptying.

(6)Urinary frequency, nocturia, and hematuria

### 3.Common examination :

(1)Digital rectal examination: prostate is located in front of the rectum, so urologist use fingers from anus into rectum to touch prostate for measuring the size and firmness.

(2)Urine test: there are white blood cells and bacteria in urine, even find the hematuria, all that can be used as an indicator of bladder and urinary tract disease.

(3)Blood tests: Prostate-Specific Antigen (PSA) is a secretion by prostate epithelial cells, the concentration in blood is less than about 4ng/ml. When PSA concentration was elevated in the blood (higher than 4ng/ml), which means that you may suffer from benign prostatic hyperplasia or prostate cancer, therefore you should find a doctor to regularly check PSA concentration.

(4)X-ray examination: such as the kidney, ureter, bladder X-ray (KUB) and intravenous pyelography (IVP), which can help us to understand the status of structure and function about urinary system.

(5)Urine flow dynamics test: examiner makes the urethra, urinary flow rate and time as a graph, which let doctor know do you have dysuria issue or not.

(6)Cystoscopy: after anesthetized locally by infusing medicine from the urethra, we insert cystoscope into bladder to assess the extent of bladder cuff obstruction and the size of prostate. This procedure takes about 5 to 10 minutes (we need do this under local anesthesia in the operating room).

(7)Abdominal sonography or transrectal prostate biopsy: you can know the size of the prostate and take a biopsy as needed.

### 4.Common treatment :

(1)Drug therapy: drug therapy such as alpha blockers, anticholinergic, hormone inhibitors and other drugs in general can only inhibit prostate gland hyperplasia, basically just relief the symptoms not heal. If stop taking such the drugs, the

prostate may still become enlarged, so must be taken lifelong.

- (2)Surgical therapy: for severe symptoms and good health condition of the patients, surgical treatment including transurethral-resection of the prostate(TURP) and traditional open surgery is currently the most effective treatment. Endoscopic transurethral- resection of the prostate (TURP) is using endoscopy through bladder to resection the prostate hyperplastic tissue, this procedure has some advantages, for example do not cause abdomen wound, take time shortly, less likely hurt the urethral sphincter and rapidly recover after surgery .
- (3)Laser vaporization of prostate treatment: through vaporization, remove excess prostate tissue almost no causing bleeding. The laser is better than traditional surgery because that less blood loss, retaining catheter shorter postoperative and completely removing the prostate obstruction.

#### 5.Post-operative precautions :

- (1)Remove the foley catheter after surgery, you may have temporary phenomena such as urgency, urinating more often, painful urination or mild hematuria, impaired renal function.
- (2)Avoid constipation, you can eat more fruits, vegetables, honey, or if necessary, take laxatives to avoid unnecessary enema. Preferably drink water more over 2000cc at daylight to maintain urine volume about 2000cc.
- (3)Within two months to avoid biking, motorcycling, running or squatting for long term.
- (4)Avoid sex life (can be restored after a month after surgery), if ejaculation disorder, about 50% have retrograde ejaculation, this is the normal phenomenon caused by surgery.
- (5)If the large amount of consecutive hematuria, come to the hospital emergency department.
- (6)Three months after surgery, be sure to come to the clinic to do urine tests to determine the internal wound is completely healed.

(7)The prostate tissue does not been resected completely by the prostate surgery, so patients still have to the hospital do follow-up examinations at least once in a year.

## 6.Prostate hypertrophy everyday precautions :

(1)Develop good voiding habits, in order to avoid over-expansion of the bladder.

(2)If urinary tract infection, must be cured.

(3)Appropriate exercise, such as walking, jogging.

(4)Maintain normal sleep.

(5)Avoid eating spicy foods.

(6)Avoid drinking large amounts beverages, containing diuretic ingredients, such as coffee, tea or beer before bedtime.

(7)If fever, voiding symptoms such as pain or no solution is required as soon as possible to the urology outpatient.

## 7.Conclusion :

BPH is a benign disease predispose to older men, in addition to daily maintenance and regular health checks to understand beyond the prostate condition when symptoms begin to interfere with daily life, you should find a urologist for treatment, understanding advantages of each method of treatment and the possible dangers, it will help you make the right judgments, effectively relieve symptoms and improve quality of life.

## 8.Reference :

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Let's take the quiz to make sure you understand

1. About 50% of men over the age of 50 have difficulty urinating, and the incidence rate increases with age.

Yes No Don't know

2. Symptoms of prostate hypertrophy include intermittent and slow urination, weak and sometimes discontinuous urine flow during urination.

Yes No Don't know

3. The higher the concentration of prostate-specific antigen (PSA) in the blood, the better.

Yes No Don't know

4. The urologist uses his fingers to enter the rectum from the anus to touch the prostate, which is the simplest examination.

Yes No Don't know

5. When the symptoms of urination interfere more with daily life, you should seek treatment from a urologist.

Yes No Don't know