

### What exactly is the prostate gland?

The prostate gland (a walnut-sized gland made of two lobes that surround the urethra; the tube that carries urine and semen out of penis), forms part of the male reproductive system. It is a gland responsible for the male sexual function and reproduction.

### What is BPH?

BPH (also referred to as Benign Prostatic Hyperlasia) is a condition in which the prostate gland becomes enlarged and may cause problems associated with urination. According to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK):

- BPH rarely causes symptoms before age 40.
- More than half of men in their 60s have some symptoms of BPH.
- As many as 90 percent of men in their 70s and 80s have some symptoms of BPH.

### What are the symptoms of BPH?

The following are the most common symptoms of Benign Prostatic Hyperplasia. However, each individual may experience symptoms differently. Symptoms may include:

- leaking or dribbling of urine
- more frequent urination, especially at night
- urgency to urinate
- urine retention - inability to urinate
- a hesitant, interrupted, weak stream of urine

These problems may lead to one/more of the following:

- incontinence
- kidney damage
- bladder damage
- urinary tract infections
- bladder stones

### Is the problem with the prostate gland fatal?

If the Prostate Gland has not been placed under proper care, it puts pressure on the urethra. This increasing pressure on the urethra causes bothersome lower urinary tract symptoms and sexual problems. It may undergo cancer mutation, leading to prostate cancer.

### Diagnosing prostate problems

History and exam  
AuA symptoms Index

AUA Symptom Index - It is a self administered questionnaire developed to follow progression of disease process and response to therapy.

Digital Rectal Exam (DRE) - A procedure in which the physician inserts a gloved finger into the rectum to examine the size, shape, symmetry and consistency of the prostate.

### Investigations

Urine Analysis and Culture is necessary to exclude urinary tract infection.

Serum creatinine is necessary to assess renal function.

PSA is a necessary screening test to rule out malignancy, especially when DRE is abnormal.

Ultrasound Kidneys is used to determine the size and shape of the kidneys, and to detect any mass, stone or other abnormalities in the kidneys.

### Special studies

Uroflowmetry (UFM) - A test in which the patient urinates into a special device that measures how quickly the urine is flowing. A reduced flow may suggest benign prostatic hyperplasia (BPH).

Post void residual urine (PVR) is obtained using an ultrasound. A normal PVR urine is less than 50ml.

Pressure flow studies To distinguish bladder problem from outlet obstruction, secondary to BPH.

Cystoscopy(Cystourethroscopy): This investigation can confirm causes of outflow obstruction while eliminating bladder abnormalities.

### Treatment

#### Conservative Treatment

Watchful waiting  
(for mild symptom)

- Patient Education
- Reassurance
- Periodic monitoring
- Life style advice

Medical treatment  
(for moderate symptom)

Alpha- blockers These medications reduce Prostate smooth muscle tone

5-Alpha reductase inhibitors It blocks the conversion of testosterone (male sex hormone) to Dihydrotestosterone

Surgical treatment. (for moderate to severe symptoms)

### Open Prostatectomy - TURP

Transurethral resection of the prostate (TURP) is the gold standard to which other surgeries for BPH are compared. This procedure is performed under general or spinal anesthesia and takes less than 90 minutes. The surgeon inserts an instrument called a resectoscope into the penis through the urethra. It contains a light, valves for controlling irrigating fluid, and an electrical loop to remove the obstructing tissue and seal blood vessels.

The surgeon removes the obstructing tissue and the irrigating fluids carry the tissue to the bladder. This debris is removed by irrigation and any remaining debris is eliminated in the urine over time. Patients usually stay in the hospital for about 3 days, during which time a catheter is used to drain urine. Most men are able to return to work within a month. During the recovery period, patients are advised to:

- avoid heavy lifting, driving, or operating machinery;
- drink plenty of water to flush the bladder;
- eat a balanced diet;
- use a laxative if necessary to prevent constipation and straining during bowel movements

### HoLEP ( Laser Surgery)

Holmium Laser Enucleation of the Prostate (HoLEP) produces results that are similar to TURP with fewer complications (e.g., less intraoperative bleeding). In this procedure, a holmium laser is used to remove obstructive prostatic tissue and seal blood vessels.

Benefits of HoLEP over traditional surgery include the following:

- Shorter hospital stay
- Shorter catheterization time
- Shorter recovery time



Change in urinary habits is common in men with advancing age, please answer each question accurately:

### A) Prostate Symptoms Score

- |   |            |                       |                         |                     |                         |               |
|---|------------|-----------------------|-------------------------|---------------------|-------------------------|---------------|
| (1) Over the past month or so, how often have you had a sensation of not emptying your bladder completely after you finished urinating,                         | Not at All | Less than 1 time in 5 | Less than Half the time | About half the time | More than half the time | Almost Always |
|   | 0          | 1                     | 2                       | 3                   | 4                       | 5             |
| (2) Over the past month or so, how often have you had to urinate again less then two hours after you finished urinating?  | 0          | 1                     | 2                       | 3                   | 4                       | 5             |
| (3) Over the past month or so, how often have you found that you stopped and started again several times when you urinated?                                     | 0          | 1                     | 2                       | 3                   | 4                       | 5             |
| (4) Over the past month or so, how often have you found it difficult to postpone urination?   | 0          | 1                     | 2                       | 3                   | 4                       | 5             |
| (5) Over the past month or so, how often have you had a weak urinary stream?  | 0          | 1                     | 2                       | 3                   | 4                       | 5             |
| (6) Over the past month or so, how often have you had to push or strain to begin passing urine?   | 0          | 1                     | 2                       | 3                   | 4                       | 5             |
| (7) Over the last month how many times did you most typically get up to urinate from the time you went to bed at night until the time you get up in the morning | 0          | 1                     | 2                       | 3                   | 4                       | 5 or time     |
|   | time       | time                  | time                    | time                | time                    | time          |

### B) Quality-oflife-assessment (QOL)

- |  |           |         |                  |       |                     |         |          |
|--|-----------|---------|------------------|-------|---------------------|---------|----------|
| (1) If you were to spend the rest of your life with a urinary condition just the way it is now, how would you feel about that? | Delighted | Pleased | Mostly satisfied | Mixed | Mostly dissatisfied | Unhappy | Terrible |
|  | 0         | 1       | 2                | 3     | 4                   | 5       | 6        |

Fill out here the score you achieved (from 1-7) along with your resulting score in Part B. In case your attained score in Part A is 7 and Part B is 3, please contact a urologist at the Kidney Center urgently at 35661000-10 (ext. 353).



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پروستٹیٹ گلینڈ کے  
مسائل اور تشخیص

