

ENLARGED PROSTATE

One of the most common problems in men over the age of 50 is an enlarged prostate. By age 60, more than 50% of the men have this problem. By age 85, the number climbs to 90%

Due to the prostate's location, benign enlargement may result in obstruction of the flow of urine. The purpose of the prostate is to produce fluid that aids in sperm transport, and liquefaction of the semen. While its growth is thought to be an abnormal part of aging, the exact cause and purpose are poorly understood.

Risk Factors

- Age — More common in men over 50 years of age
- Heredity — A family history of BPH or enlarged prostate
- Nationality — More common in Americans and Europeans

Symptoms

An obstructed, unstable bladder leads to symptoms such as:

- A weak or slow urinary stream
- A feeling of incomplete bladder emptying
- Difficulty starting urination
- Urgency to urinate
- Frequent urination
- Getting up frequently at night to urinate
- A urinary stream that starts and stops
- Straining to urinate
- Acute urinary retention (inability to urinate at all)
- Urinary tract infection
- Dangerous medical conditions such as kidney failure, infections, bleeding or stones

Detection and Diagnosis

Your doctor may perform some or all of the following tests to confirm or rule out the presence of BPH or enlarged prostate.

- **Digital Rectal Examination (DRE)** — Usually, this is the first test performed. During the examination, the doctor inserts a gloved and lubricated finger into the rectum to feel the prostate. This examination allows the doctor to get a general idea of the size and condition of your prostate.

- **International Prostate Symptom Score (IPSS) or AUA Symptom Index** — a short questionnaire that asks about specific urinary symptoms associated with BPH or enlarged prostate and how often they occur.

- **Urinalysis** — a laboratory test of your urine performed to rule out the presence of an infection or condition that may produce similar symptoms.

- **Prostate-Specific Antigen (PSA) Blood Test**— used to help rule out prostate cancer as the cause of your symptoms. PSA is a protein produced by cells in the prostate, and the level of this protein is elevated in the blood in men who have prostate cancer or BPH.

If the results of these tests suggest that you may have BPH or enlarged prostate, your doctor probably will perform additional examinations to help confirm the diagnosis and determine the severity of the condition. Such tests may include:

- **Urinary flow study** — This measures the strength and amount of your urine flow.
- **Imaging tests** — Ultrasound may be performed to estimate the size of the prostate and also may be used to look for prostate stones, kidney stones or obstructions or a tumor.
- **Cystoscopy** — A cystoscope (a thin tube containing a lens with a light system) is inserted into the urethra so the doctor can detect problems, including prostate enlargement or the development of stones in your bladder.
- **Urodynamic studies** — Your doctor may recommend a series of tests to measure bladder pressure and function if he/she suspects your symptoms might be related to a bladder problem or a neurological problem, and not BPH or enlarged prostate.

Post-void residual volume test — Ultrasound imaging is used to determine whether you can empty your bladder.



Treatment Options

A range of treatments can relieve BPH symptoms, including:

Medications — Several drugs are FDA-approved to relieve common symptoms of an enlarged prostate, including alpha blockers and 5-alpha reductase inhibitors. Each works differently. They either shrink the enlarged prostate or stop the prostate cell growth. Doctors use the BPH index to gauge how the patient responds to medication.

- **Alpha Blockers:** These drugs don't reduce the size of the prostate, but they can relieve symptoms. They work by relaxing the muscles around the bladder neck, so urine can flow more easily. These drugs work quickly, so symptoms improve within a day or two. They are most effective for men with normal to moderately enlarged prostate glands. The drugs include: Flomax (tamsulosin), Uroxatral (alfuzosin), Hytrin (terazosin), and Cardura (doxazosin). Alpha blockers were originally created to treat high blood pressure; dizziness is the most common side effect; other side effects generally are mild and controllable. Possible side effects: headache, stomach irritation, stuffy nose and retrograde ejaculation. These drugs are not for men with significant urine retention and frequent urinary tract infections.
- **5-Alpha Reductase Inhibitors:** These drugs can partially shrink the prostate by reducing levels of the male hormone — dihydrotestosterone DHT — which is involved in prostate growth. These drugs take longer to work than alpha blockers. There may be an improvement in urine flow after three months. These drugs can reduce risk of acute retention (inability to urinate) — and also reduce the need for prostate surgery. One may need to take them for six to 12 months to see if they work. The drugs include: Proscar (finasteride) and Avodart (dutasteride). Possible side effects: erection problems, decreased sexual desire, reduced amount of semen, and breast tenderness. These side effects are generally mild and may go away when you stop taking the drugs — or after the first year of taking the drugs.

Minimally Invasive Office Procedures —

When medications don't solve the problem, several procedures can relieve symptoms without surgery. They are performed in a doctor's office. These procedures use various types of heat energy to shrink a portion of the prostate and are very effective.

- **Interstitial Laser Therapy (ILT):** Causes a coagulative necrosis below the urethral surface that allows for less obstruction and it also permanently blocks the alpha receptors. Men are given local anesthesia for the procedure. This procedure involves passing a cystoscope through which a laser fiber is inserted and used to puncture the prostate. Once in the prostate, laser energy is activated to heat the prostate and destroy the tissue to shrink the gland. There is very little bleeding or recovery time. Urgency and frequency after the treatment is the rule, and may last for a few weeks.
- **TUMT (transurethral microwave thermotherapy):** This therapy reduces urinary frequency, urgency, straining and intermittent flow, but does not correct any bladder-emptying problems. In this procedure, computer-regulated microwaves are used to heat portions within the prostate to destroy select tissue. A cooling system protects the wall of the urethra during the procedure. TUMT is performed in a doctor's office and requires only topical anesthesia and pain medications. Possible side effects: painful urination for several weeks. Temporary urgency and frequency of urination also are possible. There may be less semen ejaculated. Many men must have this procedure repeated, either because symptoms return or do not improve.
- **TUNA (transurethral radio frequency needle ablation):** This procedure also destroys prostate tissue to improve urine flow and relieve symptoms. It involves heating the tissue with high-frequency radiowaves transmitted by needles inserted directly into the prostate (local anesthesia is used). The procedure does not require a hospital stay. Possible side effects: painful, urgent or frequent urination for a few weeks.

Surgery — For most men with very enlarged prostates, surgery can relieve symptoms, but there are both risks and benefits with each type of operation.

- **TURP (transurethral resection of the prostate):** This is the most common surgery for enlarged prostate, and considered to bring the greatest reduction in symptoms. Only the tissue growth that is pressing against the urethra is removed to allow urine to flow easily. The procedure involves an electrical loop that cuts tissue and seals blood vessels. Most doctors suggest using TURP whenever possible, as it is less traumatic than open surgery and requires shorter recovery time. With the TURP procedure, patients can expect to have retrograde ejaculation afterwards. This is a condition in which a man ejaculates backward into the bladder instead of through the urethra. Retrograde ejaculation generally isn't painful. It shouldn't be an issue unless fertility is a concern. Other possible side effects: blood loss requiring transfusion, painful urination, recurring urinary tract infections, bladder narrowing and blood in the urine. After TURP, the odds of erection problems range from 1% to 5%; 85% of the patients will have retrograde ejaculation. However, this is often temporary.
- **TUIP (transurethral incision of the prostate):** This procedure involves making cuts in the prostate instead of removing prostate tissue. These cuts reduce pressure on the urethra, making urination easier. Patients go home the same day, and wear a catheter for a day or two. Symptom relief is slower with TUIP, compared with TURP. However, most men are satisfied with their symptom relief from this. Also, retrograde ejaculation is less common and less severe than after TURP. Risk of erectile problems is minimal.
- **Greenlight Laser Surgery:** This procedure uses a high energy vaporizing laser to destroy prostate tissue. It is done under general anesthesia and as an outpatient stay at the hospital. It provides immediate relief of symptoms, yet men may suffer from painful urination for a few weeks. In general, this procedure causes less blood loss, and side effects can include retrograde ejaculation.

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- **Open Prostate Surgery (Simple Prostatectomy):** When a transurethral procedure cannot be used, open surgery (which requires an incision in the abdomen) may be used. This allows the surgeon to remove tissue in the prostate. Open prostatectomy typically is done when the prostate gland is greatly enlarged, when there is bladder damage, if there are bladder stones or if the urethra is narrowed. The inner part of the prostate is removed. This surgery is done under general or spinal anesthesia, and recovery can take a few weeks to several months. Side effects are similar to TURP, including blood loss requiring a transfusion, urinary incontinence, erection problems and retrograde ejaculation.

Prevention

Although you cannot prevent the prostate from enlarging over the course of time, you can take measures to reduce your symptoms:

- Limit your intake of liquids in the evening, especially drinks containing alcohol and caffeine. Cutting back helps to minimize the number of times you have to urinate during the night. (Also, drinking too much alcohol may irritate the bladder or prostate. Most experts recommend that men avoid more than two alcoholic drinks a day.)
- Ask your doctor whether you can change or eliminate medications that may be aggravating the problem. These medications include antihistamines, diuretics, decongestants, antispasmodics, tranquilizers and certain types of antidepressants. These can weaken the bladder muscle or narrow the opening of the prostate.
- Take every opportunity to use the bathroom and allow yourself enough time to empty your bladder completely.

Insurance

Although insurance plans vary, enlarged prostate and BPH procedures usually are covered by insurance. Check with your insurance plan, in advance, to make sure.

Schedule an Appointment

To schedule a consultation with a urologist at GW Hospital and determine if you suffer from an enlarged prostate, please call 1-888-4GW-DOCS.

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900 23rd St., NW
Washington, DC 20037
(202) 715-4000
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