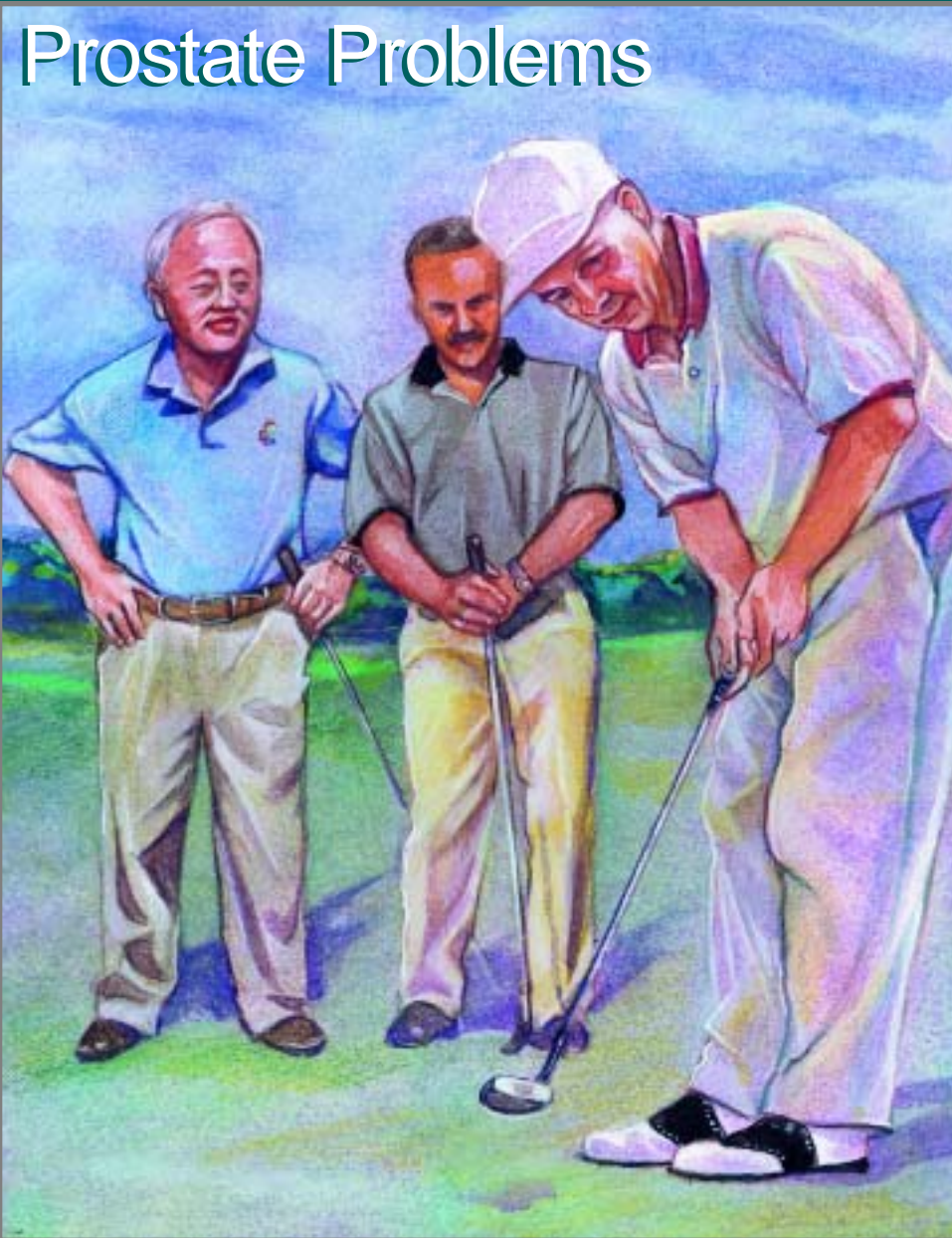


What I need to know about Prostate Problems



NATIONAL INSTITUTES OF HEALTH
National Kidney and Urologic Diseases Information Clearinghouse



U.S. Department
of Health and
Human Services

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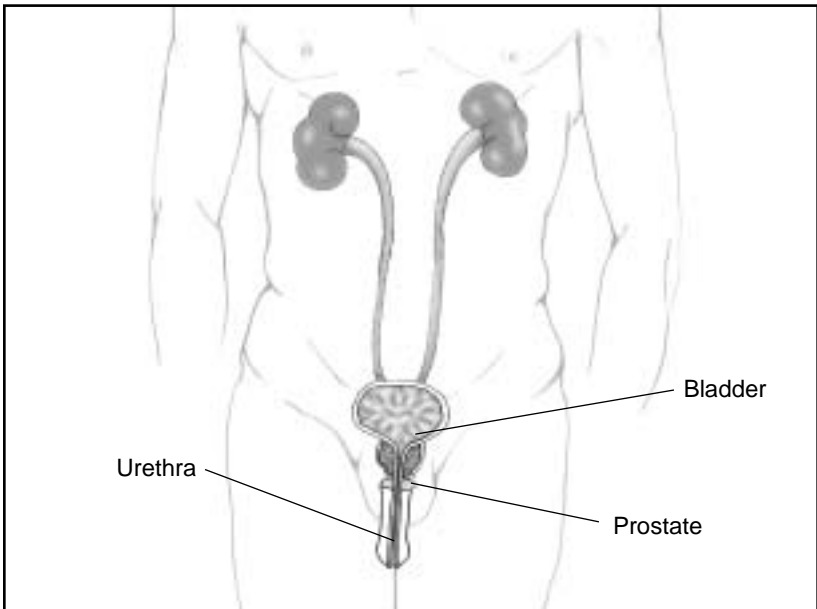
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What is the prostate?

The **prostate*** is part of a man's sex organs. It's about the size of a walnut and surrounds the tube called the **urethra**, located just below the bladder.

The urethra has two jobs: to carry urine from the bladder when you urinate and to carry semen during a sexual climax, or **ejaculation**. Semen is a combination of sperm plus fluid that the prostate adds.



The male urinary tract. The prostate surrounds the urethra, where urine leaves the bladder.

*Words in **bold** type are defined in the glossary that starts on page 14.

What are prostate problems?

For men under 50, the most common prostate problem is **prostatitis**.

For men over 50, the most common prostate problem is prostate enlargement. This condition is also called **benign prostatic hyperplasia** or BPH. Older men are at risk for prostate cancer as well, but this disease is much less common than BPH. More information about prostate cancer is available from the National Cancer Institute (see “For More Information” on page 16).



For younger men, the most common prostate problem is prostatitis. For older men, it's an enlarged prostate.

What is prostatitis?

“Prostatitis” means that the prostate is inflamed; it could be swollen, red, and warm. If you have prostatitis, you may have a burning feeling when you urinate, or you may have to urinate more often. Or you may have a fever or just feel tired.

Inflammation in any part of the body is usually a sign that the body is fighting germs or repairing an injury. Some kinds of prostatitis are caused by germs, or **bacteria**. If you have bacterial prostatitis, your doctor can look through a microscope and find bacteria in a sample of your urine. Your doctor can then give you an **antibiotic** medicine to fight the bacteria.



If you have bacterial prostatitis, your doctor can look through a microscope and find bacteria in a sample of your urine.

If you keep getting infections, you may have a defect in your prostate that allows bacteria to grow. These defects can usually be corrected by surgery.

Most of the time, doctors don't find any bacteria in men with prostatitis. If you have urinary problems, the doctor will look for other possible causes, such as a kidney stone or cancer.

If no other causes are found, the doctor may decide that you have a condition called nonbacterial prostatitis.

Antibiotics will not help nonbacterial prostatitis. You may have to work with your doctor to find a treatment that's good for you. Changing your diet or taking warm baths may help. Your doctor may give you a medicine called an alpha blocker to relax the muscle tissue in the prostate. No single solution works for everyone with this condition.



Work with your doctor to find a treatment that's good for you.

What is prostate enlargement, or BPH?

If you're a man over 50 and have started having problems urinating, the reason could be an enlarged prostate, or BPH. As men get older, their prostate keeps growing. As it grows, it squeezes the urethra. Since urine travels from the bladder through the urethra, the pressure from the enlarged prostate may affect bladder control.

If you have BPH, you may have one or more of these problems:

- A frequent and urgent need to urinate. You may get up several times a night to go to the bathroom.



Frequent urination at night may be a sign of an enlarged prostate.

- Trouble starting a urine stream. Even though you feel you have to rush to get to the bathroom, you find it hard to start urinating.
- A weak stream of urine.
- A small amount of urine each time you go.
- The feeling that you still have to go, even when you have just finished urinating.
- Leaking or dribbling.
- Small amounts of blood in your urine.

You may barely notice that you have one or two of these symptoms, or you may feel as though urination problems have taken over your life.

Is BPH a sign of cancer?

No. It's true that some men with prostate cancer also have BPH, but that doesn't mean that the two conditions are always linked. Most men with BPH don't develop prostate cancer. However, because the early symptoms are the same for both conditions, you should see a doctor to evaluate these symptoms.

Is BPH a serious disease?

By itself, BPH is not a serious condition, unless the symptoms are so bothersome that you can't enjoy life. But BPH can lead to serious problems. One problem is urinary tract infections.

If you can't urinate at all, you should get medical help right away. Sometimes this happens suddenly to men after they take an over-the-counter cold or allergy medicine.

In rare cases, BPH and its constant urination problems can lead to kidney damage.

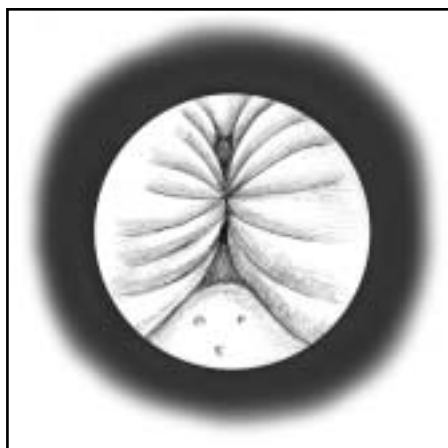
What tests will my doctor order?

Several tests help the doctor identify the problem and decide on the best treatment.

- **Digital rectal exam.** This exam is usually the first test done. The doctor inserts a gloved finger into the rectum and feels the part of the prostate that sits next to it. This exam gives the doctor a general idea of the size and condition of the prostate.
- **Blood test.** The doctor may want to test a sample of your blood to look for prostate-specific antigen, or PSA. If your PSA is high, it may be a sign that you have prostate cancer. But this test isn't perfect. Many men with high PSA scores don't have prostate cancer.

- **Imaging.** The doctor may want to get a picture of your prostate using either x rays or sonogram. An IVP, or **intravenous pyelogram**, is an x ray of the urinary tract. For an IVP, dye will be injected into a vein. Later, when the dye passes out of your blood into your urine, it will show up on the x ray. A rectal sonogram uses a probe, inserted into the rectum, to bounce sound waves off the prostate.
- **Urine flow study.** You may be asked to urinate into a special device that measures how quickly the urine is flowing. A reduced flow may mean that you have BPH.

- **Cystoscopy.** Another way to see a problem from the inside is with a **cystoscope**, which is a thin tube with lenses like a microscope. The tube is inserted into the bladder through the urethra while the doctor looks through the cystoscope.



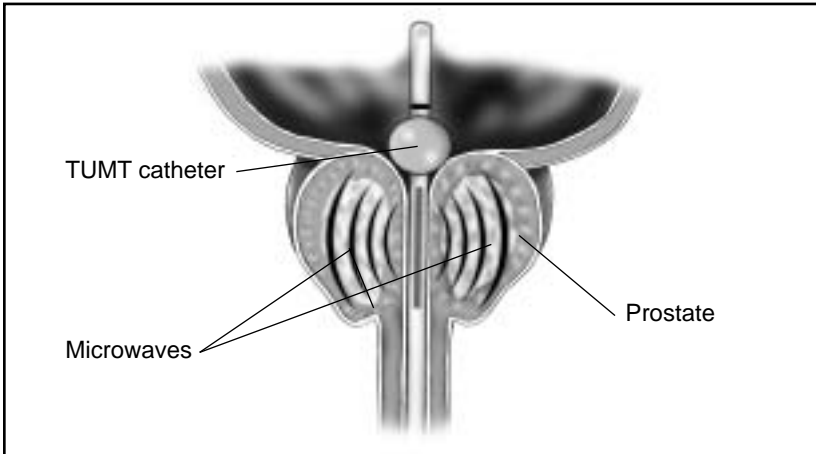
Cystoscopic view of enlarged prostate from inside the urethra.

How is BPH treated?

Several treatments are available. You'll have to work with your doctor to find the one that's best for you.

- **Watchful waiting.** If your symptoms don't bother you too much, you may choose to live with them rather than take pills every day or have surgery. But you should have regular checkups to make sure your condition isn't getting worse. With watchful waiting, you can be ready to choose a treatment as soon as you need it.
- **Medicines.** In recent years, scientists have developed several medicines to shrink or relax the prostate to keep it from blocking the bladder opening.
- **Nonsurgical procedures.** A number of devices have been developed to remove parts of the prostate. These procedures can usually be done in a clinic or hospital without an overnight stay. The procedures are **transurethral**, which means the doctor reaches the area by going through the urethra. The doctor's devices use thin tubes inserted through the urethra to deliver controlled heat to small areas of the prostate. A gel may be applied to the urethra to prevent pain or discomfort. You won't need general drugs that make you go to sleep. These

procedures are called transurethral microwave thermotherapy (**TUMT**) and transurethral needle ablation (**TUNA**).



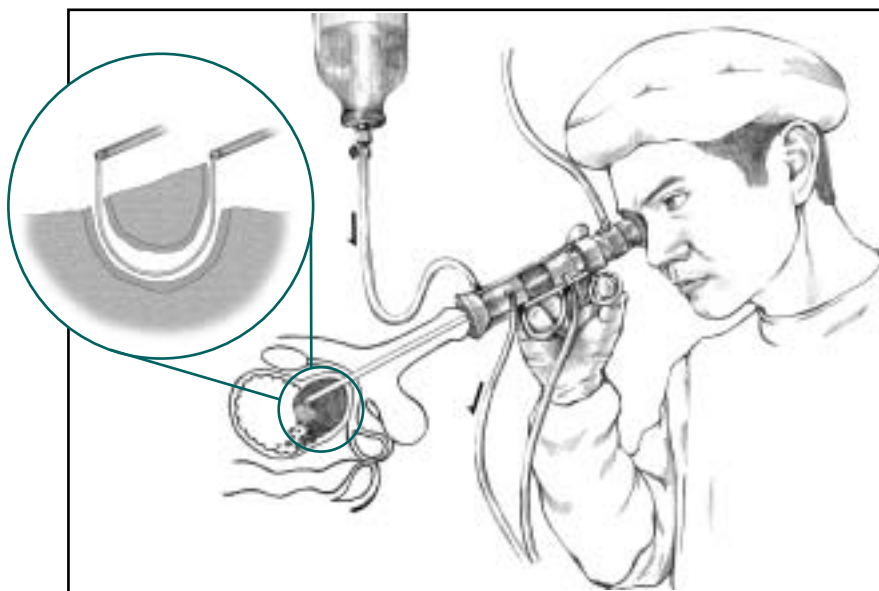
In TUMT, microwaves heat part of the prostate.

- **Surgical treatment.** Surgery to remove a piece of the prostate can be done through the urethra or in open surgery, which requires cutting through the skin above the base of the penis. Your doctor may recommend open surgery if your prostate is especially large. The most common surgery is called transurethral resection of the prostate, or **TURP**. In TURP, the surgeon inserts a thin tube up the urethra and cuts away pieces of the prostate with a wire loop under direct vision through a cystoscope. TURP and open surgery both require general anesthesia and a stay in the hospital.

Is TURP the same as removing the prostate?

No. TURP and other procedures for BPH remove only enough tissue to relieve urine blockage. In a few cases, the prostate may continue to grow, and urinary problems return. You should continue to have your prostate checked once a year even after surgery to make sure that BPH or prostate cancer has not developed.

A prostate removal, or **prostatectomy**, is usually done only to stop prostate cancer from spreading.



In TURP, a wire loop cuts away pieces of the prostate.

What are the side effects of prostate treatments?

Surgery for BPH may have a temporary effect on sexual function. Most men recover complete sexual function within a year after surgery. The exact length of time depends on how long you had symptoms before surgery was done and on the type of surgery. After TURP, some men will find that semen does not go out of the penis during orgasm. Instead, it goes backwards into the bladder. But the feeling of orgasm stays the same. This backwards ejaculation is a problem only for couples who want to have a baby.

If you have any problems after treatment for a prostate condition, talk with your doctor or nurse. Erection problems and loss of bladder control can be treated, and chances are good that you can be helped.

If your prostate is removed completely to stop cancer, you're more likely to have long-lasting sexual and bladder control problems (leaking or dribbling). Your doctor may be able to use a technique that leaves the nerves around the prostate in place. This makes it easier for you to regain bladder control and sexual function. Not all men can have this technique, but most men can be helped with other medical treatments.

Hope Through Research

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) has many research programs aimed at finding treatments for urinary disorders, including prostatitis and BPH. The Medical Therapy of Prostate Symptoms (MTOPS) program is studying the results of medical therapy used to treat thousands of men with BPH in several research centers throughout the country. MTOPS will provide valuable information about the effectiveness and side effects of drugs being used for BPH.

Research is also under way to evaluate new approaches to surgical treatment of BPH. Studies



are planned to assess the effectiveness of saw palmetto and other herbal remedies for this disorder.

Problems with bladder control and sexual function can be treated. Chances are good that you can be helped.

Prostate Problems Glossary

Page 1

prostate (PRAH-state): In men, a walnut-shaped gland that surrounds the urethra at the neck of the bladder. The prostate supplies fluid that goes into semen.

urethra (yoo-REE-thrah): The tube that carries urine from the bladder to the outside of the body.

ejaculation (ee-JAK-yoo-LAY-shun): The sudden release of semen through the penis during sexual climax.

Page 2

prostatitis (PRAH-stuh-TY-tis): Inflammation of the prostate gland. Chronic prostatitis means the prostate gets inflamed over and over again. The most common form of prostatitis is not associated with any known infecting organism.

benign (be-NINE) **prostatic** (prah-STAT-ik) **hyperplasia** (HY-per-PLAY-sha) (BPH): An enlarged prostate not caused by cancer. BPH can cause problems with urination because the prostate squeezes the urethra at the opening of the bladder.

Page 3

bacteria (bak-TEER-ee-uh): Tiny organisms that cause infection or disease.

antibiotic (AN-tee-by-AH-tik): A medicine that kills bacteria.

Page 8

intravenous (IN-truh-VEE-nus) **pyelogram** (PY-loh-gram) (IVP): An x ray of the urinary tract. A dye is injected to make urine visible on the x ray and show any blockage in the urinary tract.

cystoscope (SIS-toh-scope): A tube-like instrument used to look inside the urethra and bladder.

Page 9

transurethral (TRANZ-yoo-REE-thrul): Through the urethra. Several transurethral procedures are treatments for BPH:

Page 10

TUMT (transurethral microwave thermotherapy): Destroys excess prostate tissue interfering with the exit of urine from the body by using a probe in the urethra to deliver microwaves.

TUNA (transurethral needle ablation): Destroys excess prostate tissue with electromagnetically generated heat by using a needle-like device in the urethra.

TURP (transurethral resection of the prostate): Removes the excess prostate tissue by using an instrument with an electrical loop.

Page 11

prostatectomy (PRAH-stuh-TEK-tuh-mee): Removal of the entire prostate gland.

For More Information

The National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC) has a fact sheet, *Prostate Enlargement: Benign Prostatic Hyperplasia*, that gives more information about BPH. Another fact sheet, *Prostatitis: Disorders of the Prostate*, discusses four types of prostate inflammation. A summary of an NIDDK workshop on chronic prostatitis is also available. Call 1-800-891-5390 to speak to an NKUDIC information specialist and request these publications or read them at www.urologic.niddk.nih.gov.

More information is available from the following organizations:

American Foundation for Urologic Disease

1000 Corporate Boulevard

Suite 410

Linthicum, MD 21090

Phone: 1-800-828-7866 or (410) 689-3990

Fax: (410) 689-3998

Email: admin@afud.org

Internet: www.afud.org

The Prostatitis Foundation

1063 30th Street, Box 8

Smithshire, IL 61478

Phone: 1-888-891-4200

Fax: (309) 325-7184

Email: mcapstone@aol.com

Internet: www.prostatitis.org

For information about prostate cancer, contact the

National Cancer Institute (NCI)

Cancer Information Service

Phone: 1-800-4CANCER (1-800-422-6237)

TTY: 1-800-332-8615

Email: cancermail@icicc.nci.nih.gov

Internet: www.nci.nih.gov (NCI's primary web site) or <http://cancer.net.nci.nih.gov> (material for professionals, patients, and the public)

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Publications produced by the clearinghouse are carefully reviewed by both NIDDK scientists and outside experts.

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