

Know Your Prostate

The prostate is a small gland in men—about the size and shape of a walnut—that sits below the bladder and just in front of the rectum. The prostate gland, part of the male reproductive system, helps make semen. Common prostate problems include inflammation (prostatitis), enlarged prostate (benign prostatic hyperplasia [beh-nine pro-stat-ik hy-per-play-zhah]) (BPH), and prostate cancer. One change does not lead to another, and it is possible to have more than 1 condition at the same time.

How do I know if I'm at risk?

Risk factors for prostate cancer include:

- **Age.** Men who are aged ≥ 50 years have a higher risk of prostate cancer.
- **Race.** Prostate cancer is most common among African American, white, Hispanic, and Native American men. Asian American men have the lowest rates of prostate cancer.
- **Family history.** Men whose fathers or brothers have had prostate cancer have a 2 to 3 times higher risk of prostate cancer than men who do not have a family history of the disease.
- **Diet.** The risk of prostate cancer may be higher for men who eat diets high in fat, dairy, and calcium.
- **Hormones.** The male sex hormone testosterone (tes-tos-teh-rone) is changed to dihydrotestosterone (dy-hy-droh-tes-tos-teh-rone) (DHT) in the body, which may play a part in developing prostate cancer.
- **Vitamin supplements.** Vitamin E and folic acid supplements may have a modest effect to increase the risk of prostate cancer.

What are the warning signs?

Possible signs of prostate cancer include:

- Weak or stop-and-go flow of urine
- Sudden urge to urinate

- Frequent urination (especially at night)
- Trouble starting the flow of urine
- Trouble emptying the bladder completely
- Pain or burning while urinating
- Blood in the urine or semen
- Painful ejaculation
- Pain in the back, hips, or pelvis that doesn't go away

How can I avoid the problem?

A diet high in folate (a type of vitamin B that occurs naturally in certain green vegetables, beans, and orange juice) has been shown to decrease the risk of developing prostate cancer. If you are at increased risk for developing prostate cancer, your doctor may also prescribe a drug for you, such as finasteride (fih-nas-teh-ride) or dutasteride (doo-tas-teh-ride) that lowers the amount of male sex hormones made by the body.

When do I need medical attention?

The prostate gland tends to grow larger with age, squeezing the urethra (yoo-ree-thruh) and causing problems passing urine. Symptoms can begin in men in their 30s and 40s, whereas others may not notice symptoms until much later in life. An infection or a tumor can also make the prostate larger. You should tell your doctor if you are passing urine more frequently during the day, have an urgent need to pass urine, have less urine flow, feel burning when you pass urine, or need to get up many times during the night to pass urine.

What tests will I need?

Important tests include:

- **Digital rectal exam.** During this exam, a medical professional inserts a lubricated, gloved finger into the rectum and feels the prostate through the rectal wall for lumps or abnormal areas.
- **Prostate-specific antigen (PSA) test.** This test

measures the level of PSA in the blood. An increased amount in the blood could indicate prostate cancer. Levels of PSA may also be high in men who have an infection or inflammation of the prostate or BPH. It is important to note that many men who are diagnosed with prostate cancer during screening may be treated, and experience adverse effects, unnecessarily. Talk with your doctor about whether the PSA test is the best option for you.

- **Transrectal ultrasound.** This procedure, sometimes used during a biopsy, inserts a probe, about the size of a finger, into the rectum to check the prostate.
- **Biopsy.** During the biopsy procedure, a thin needle is inserted into the prostate through the rectum (transrectal biopsy) or through the skin between the scrotum and the rectum (transperineal biopsy). Small tissue samples are taken directly from the prostate and viewed under a microscope to check for cancer cells.

How is it treated?

If biopsy results indicate prostate cancer, different treatment options are available. Standard treatment options include:

- **Watchful waiting/active surveillance (sehr-vay-lenz).** This is an option for older men who do not have symptoms, have other medical conditions, and for men whose prostate cancer is only found during a screening test. The doctor will perform certain exams and tests to determine whether the cancer is growing. If symptoms change or the cancer grows, treatment may be given to cure the cancer.
- **Surgery.** A surgical procedure to remove the tumor may be recommended for patients whose tumor can only be treated this way and who are in good health. The prostate may be removed, including some surrounding tissue and seminal vesicles. Affected lymph nodes may be removed during this surgery.
- **Radiation therapy.** This cancer treatment uses

high-energy X-rays or other types of radiation to kill cancer cells or keep them from growing.

- **Hormone therapy.** This therapy removes hormones or blocks their action and stops cancer cells from growing. Drugs, surgery, or other hormones are used to reduce the amount of male hormones or block them from working.
- **Chemotherapy.** This cancer treatment uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping them from dividing. The drugs are taken by mouth or injected into a vein or muscle.
- **Biologic therapy.** This treatment uses the patient's immune system to fight cancer.
- **Bisphosphonate (bis-fos-foh-nate) therapy.** These drugs reduce bone disease and pain when cancer has spread to the bone.
- **Targeted therapy.** This treatment uses drugs or other substances to find and attack specific cancer cells without harming normal cells.

Patients may also wish to participate in a clinical trial that is part of the cancer research process. Clinical trials are done to find out whether new cancer treatments are safe and effective or better than the standard treatment. Patients can enter clinical trials before, during, or after starting their cancer treatment.

Follow-up tests might be performed to see how well treatment is working; whether to continue, change, or stop treatment; or to show whether the condition has changed or the cancer has come back.

While most men diagnosed with prostate cancer do not die because of it, it is important to have an open dialogue with your doctor about screening options and the type of treatment plan, if necessary, that is best for you. For more information, visit <http://www.cancer.gov/cancertopics/types/prostate>.