

Prostate Cancer

A plain-English guide for you and your family

WHAT IS HAPPENING

The prostate is a small gland that sits just below the bladder in men. Its job is to make fluid that mixes with sperm to help it survive and move. Picture it like a walnut wrapped around the tube that carries urine out of the body. When cells in the prostate start growing out of control, that is prostate cancer. Most prostate cancers grow very slowly — so slowly that many men die with it, not from it. Age is the biggest risk: most cases happen after age 65. Family history matters too — if your father or brother had it, your risk doubles. Black men get it younger and more often than other groups, and the reasons include both genes and access to care. The tricky part is that early prostate cancer causes no symptoms at all, because the tumor sits quietly inside the gland. Only when it grows large enough to squeeze the urethra (the tube that drains urine) or spreads to bones do symptoms show up — trouble starting urine, weak stream, blood in urine, or bone pain. By then, the cancer is often advanced. That is why screening with a PSA blood test and talking through the risks and benefits with your doctor starting around age 50 (or 45 for Black men and men with family history) is so important. Many prostate cancers can be watched safely without treatment; others need surgery or radiation. The goal is to catch the dangerous ones early and avoid overtreating the slow ones.

What you might feel

- Weak urine stream or trouble starting to pee
- Needing to pee often, especially at night
- Blood in the urine or semen
- Pain in the lower back, hips, or pelvis that does not go away
- Trouble getting or keeping an erection
- Painful ejaculation
- Raised PSA on a blood test
- Hard lump or uneven area felt during a digital rectal exam
- Unexplained weight loss and feeling very tired

Call the doctor right away if...

- Blood in the urine or semen
- Bone pain in the back, hips, or pelvis that does not go away
- Sudden trouble holding urine or moving your legs (could mean the cancer is pressing on the spinal cord)
- Unexplained weight loss and deep tiredness
- PSA rising very fast or staying high after treatment

What the care team will do

- Check for signs of spinal cord compression every shift: leg strength, sensation in both legs, ability to urinate and have a bowel movement.
- Monitor pain level using a 0-to-10 scale and give prescribed pain medicine on time, especially for bone pain.
- Track urinary output and watch for difficulty urinating, blood clots in urine, or inability to pass urine.
- Teach about side effects of androgen deprivation therapy: hot flashes, breast tenderness, bone thinning, and mood changes.
- Encourage a diet high in fruits, vegetables, and lean protein; limit red meat and high-fat dairy.
- Assess for signs of infection if the patient has a urinary catheter: fever, cloudy urine, strong urine smell, confusion.
- Support emotional health by listening to fears about sexuality, masculinity, and cancer prognosis; offer referral to support groups or counseling.

Medicines you may be given — and why

Leuprolide (Lupron)

Leuprolide stops the testicles from making testosterone (the main male hormone that feeds prostate cancer). It works by tricking the brain. At first it pushes the pituitary gland (the control center at the base of the brain) to release a flood of signals. After a few weeks, the pituitary gets tired and shuts down those signals. Without the signals, the testicles stop making testosterone. Cancer cells that need testosterone to grow then slow down or shrink.

Bicalutamide (Casodex)

Bicalutamide blocks testosterone from reaching prostate cancer cells. Testosterone is still made in the testicles, but this drug sits on the cancer cell's testosterone lock (the androgen

receptor) so the real hormone cannot get in. Without the signal from testosterone, the cancer cell slows down or stops growing.

Abiraterone (Zytiga)

Abiraterone stops the body from making testosterone in three places: the testicles, the adrenal glands (small glands on top of the kidneys), and inside the cancer itself. It blocks an enzyme called CYP17 that is needed to build testosterone. Without this enzyme, testosterone production drops to nearly zero. This starves cancer cells that have learned to make their own fuel or grab tiny amounts of testosterone from the adrenal glands.

Enzalutamide (Xtandi)

Enzalutamide is a stronger blocker of the androgen receptor (the lock on cancer cells where testosterone fits). It works in three ways: it stops testosterone from attaching to the receptor, it prevents the receptor from moving into the cell's control center (the nucleus), and it blocks the receptor from turning on cancer-growth genes. This triple block is much more powerful than older anti-androgens, so it works even when cancer has become resistant to hormone therapy.

Docetaxel (Taxotere)

Docetaxel kills cancer cells by jamming the machinery they use to divide. Inside every cell are tiny tubes called microtubules that pull the cell apart when it splits in two. Docetaxel locks these tubes in place so they cannot break down. The cell gets stuck mid-division and dies. Because cancer cells divide much faster than most normal cells, they are hit hardest. Docetaxel is used when hormone therapy is no longer enough.

Radium-223 (Xofigo)

Radium-223 is a radioactive element that acts like calcium. When injected, it travels through the bloodstream and is pulled into bone, especially where bone is being rebuilt (which happens a lot around cancer that has spread to bone). Once inside the bone, radium-223 gives off alpha radiation — very short-range but very powerful energy that kills nearby cancer cells in the bone without traveling far enough to harm other organs. It shrinks bone tumors, eases pain, and helps men live longer.

Denosumab (Xgeva)

Denosumab stops bone from breaking down. Normally, bone is constantly rebuilt by two types of cells: osteoblasts (builders) and osteoclasts (demolition crew). Cancer in the bone tips the balance, causing too much demolition and making bones weak and painful. Denosumab blocks RANK ligand, a protein that turns on osteoclasts. Without this signal, the demolition cells cannot form or work. Bone stays stronger, fractures are less common, and pain decreases.

Olaparib (Lynparza)

Olaparib blocks an enzyme called PARP that helps cells repair breaks in their DNA. Normal cells have backup repair systems (like BRCA1 and BRCA2 genes), so blocking PARP does not kill them. But prostate cancer cells with mutations in BRCA or other DNA-repair genes have already lost their backup system. When PARP is blocked, these cancer cells cannot fix DNA damage and die. This drug works only in men whose cancer has specific inherited or tumor mutations in DNA-repair genes (found by genetic testing).

Where this information comes from

- American Urological Association (AUA)
- National Comprehensive Cancer Network (NCCN) Prostate Cancer Guideline
- U.S. Preventive Services Task Force (USPSTF)
- American Cancer Society

Last reviewed: 2026-07-07