

Swelling of the prostate

The prostate gets inflamed—sometimes by bacteria (sudden, needs antibiotics), sometimes from other causes (long-lasting pain, harder to fix).

THE ONE-LINE TRUTH

Bacteria invade the prostate and trigger swelling, pain when you pee, pain between the legs, fever, and a tender puffy gland on exam.

The chain — how it unfolds

1. Bacteria enter the prostate. — why: E. coli from the bladder or gut, or sexually transmitted bacteria like *Neisseria gonorrhoeae* (gonorrhea) or *Chlamydia trachomatis* (chlamydia), travel through the urethra or bloodstream and lodge in the prostate tissue, where they start to multiply.
2. The immune system sends white blood cells to fight the invaders. — why: White blood cells release chemicals called cytokines that signal inflammation, kill bacteria, and call for backup. This response causes swelling, heat, and pain in the gland.
3. The prostate swells and squeezes the urethra. — why: The gland wraps around the urethra like a tight cuff. When it swells, the urethra narrows, so urine has to force its way through—causing a weak stream, hesitancy, and a burning pain when you pee.
4. Swelling presses on nearby nerves. — why: The prostate is packed with nerves that run to the pelvis, lower back, penis, and rectum. Pressure from the swollen gland irritates these nerves, causing deep aching pain between the legs (the perineum), in the lower back, in the testicles, or during ejaculation.
5. The bladder becomes irritable. — why: Inflammation spreads to the bladder neck and urethra, making the bladder hypersensitive. It sends urgent signals to pee even when it holds only a small amount of urine, so you feel like you need to go all the time.
6. Fever spikes (in acute bacterial prostatitis). — why: Bacteria release toxins, and the immune system raises the body's thermostat (by releasing pyrogens that act on the hypothalamus in the brain) to create a hotter environment that slows bacterial growth and speeds up immune reactions.

7. The body walls off the infection to stop it from spreading. — why: Blood clotting proteins and immune cells form a barrier around the infected tissue, trying to keep bacteria from entering the bloodstream. This containment is helpful but also traps pus and can form an abscess (a walled-off pocket of pus) if antibiotics don't clear the bacteria.
8. If untreated, bacteria can break into the bloodstream and cause sepsis. — why: Once bacteria escape the prostate and flood the blood, they trigger a body-wide inflammatory response. Blood vessels leak, blood pressure drops, and organs (kidneys, lungs, brain) don't get enough oxygen—a life-threatening cascade that requires emergency treatment.

Spot it — what you see, and why

- Pain or aching in the lower belly, groin, or the area between the scrotum and anus: The prostate sits deep in the pelvis, just below the bladder and in front of the rectum. When it swells up from infection or irritation, it presses on nearby nerves and tissues, triggering pain that can spread through the whole pelvic floor—the hammock of muscles and ligaments at the bottom of the pelvis.
- Pain or burning when urinating: Urine flows through a tube called the urethra (the pee tube) that runs right through the middle of the prostate. When the prostate is swollen, it squeezes the urethra like a tight sleeve around a straw, irritating the lining and making every drop of urine sting as it passes through.
- Needing to pee more often, especially at night, or feeling a sudden strong urge: The swollen prostate presses on the bladder—the stretchy bag that stores urine—so the bladder cannot hold as much as usual and sends 'full' signals to the brain even when it is only partly filled. The irritation also makes the bladder muscles jumpy, so they squeeze without warning.
- Weak urine stream or trouble starting the flow: Because the swollen prostate is clamping down on the urethra from all sides, less room is left for urine to squeeze through. It is like trying to water a garden through a hose that someone is stepping on—the stream comes out slow and dribbles.
- Pain during or after ejaculation (releasing semen): The prostate makes most of the fluid in semen. When it is inflamed, the glands inside are tender and the ducts (tiny tubes that carry fluid) are tight, so the rhythmic squeezing that happens during ejaculation pulls on swollen tissue and hurts.
- Fever, chills, body aches, and feeling very sick all over: When bacteria invade the prostate, the immune system sends white blood cells and chemical messengers called cytokines (alarm proteins) to fight the infection. Those cytokines travel through the bloodstream and reset the brain's thermostat in the hypothalamus (the body's temperature control center), causing fever. The same signals trigger chills, muscle aches, and that heavy, flu-like feeling.

Red flags — act now

- High fever (over 101°F or 38.3°C), shaking chills, confusion, very low blood pressure, or fast heart rate—signs the infection may have spread into the bloodstream (sepsis, a life-threatening emergency)
- Complete inability to urinate even though the bladder feels full and painful—the swollen prostate may be totally blocking the urethra, and the bladder can burst or kidneys can back up if not drained urgently
- Sudden severe pain in the lower back or belly with nausea and vomiting—may signal the infection has climbed up to the kidneys (pyelonephritis) or an abscess (a pocket of pus) is forming in the prostate

Treat it — in this order

1. Fluoroquinolone antibiotic (ciprofloxacin 500 mg twice daily or levofloxacin 500–750 mg once daily) for 4–6 weeks, or trimethoprim-sulfamethoxazole if fluoroquinolone-resistant or contraindicated → Kills the bacteria (usually *E. coli*, *Klebsiella*, or *Enterococcus*) living inside the prostate. Fluoroquinolones penetrate prostate tissue well even though the gland has a protective barrier. As bacteria die, inflammation drops, the prostate shrinks back toward normal size, and pain, fever, and urinary symptoms fade over days to weeks. Long course (4–6 weeks) prevents the infection from coming back as chronic prostatitis.
2. Alpha-blocker (tamsulosin 0.4 mg once daily, alfuzosin, or doxazosin) to relax smooth muscle in the prostate and bladder neck → Blocks alpha-1 receptors on smooth muscle cells around the urethra and prostate capsule, making them loosen their grip. This widens the urethra, lets urine flow more easily, and reduces the burning, straining, and hesitancy. Symptoms improve within 2–7 days. Also helps if benign prostatic hyperplasia (BPH) is part of the picture.
3. Nonsteroidal anti-inflammatory drug (ibuprofen 400–600 mg every 6–8 hours or naproxen 500 mg twice daily) or acetaminophen 650–1,000 mg every 6 hours for pain and fever → NSAIDs block cyclooxygenase (COX) enzymes that make prostaglandins (chemicals that amplify pain and fever). Less prostaglandin means less pain signal reaching the brain and lower fever. Acetaminophen lowers fever through the hypothalamus but does not reduce inflammation much. Both make the deep pelvic ache and body aches tolerable while antibiotics work.

4. Pelvic floor physical therapy, warm sitz baths (sitting in warm water 15–20 minutes 2–3 times daily), and behavior changes (avoid caffeine, alcohol, spicy foods, prolonged sitting, and bicycling until healed) → Warm water increases blood flow to the perineum, relaxes tight muscles, and soothes nerve endings. Physical therapy teaches you to relax the levator ani and other pelvic floor muscles that clench during pain, breaking the pain-spasm-pain cycle. Avoiding bladder irritants (caffeine, alcohol, spice) reduces inflammation signals. These measures lower pain and improve urinary flow over weeks to months.
5. Hospital admission with IV fluoroquinolone (ciprofloxacin 400 mg every 12 hours or levofloxacin 750 mg daily) or IV ceftriaxone 1–2 g daily plus IV aminoglycoside (gentamicin or tobramycin), plus IV fluids and sepsis monitoring if fever $\geq 38.3^{\circ}\text{C}$, low blood pressure (hypotension), altered mental status, or inability to take pills → Delivers high-dose antibiotics directly into the bloodstream, reaching the prostate and all body tissues fast. IV fluids keep blood pressure up and kidneys flushed. Continuous monitoring catches sepsis (whole-body infection response) early—sepsis can lead to organ failure and death within hours if untreated. Hospital care is lifesaving when infection is severe or spreading.

Your top priorities at the bedside

1. Check vital signs including temperature, heart rate, and blood pressure every 4 hours — why: Fever above 100.4°F plus fast heart rate or low blood pressure are early signs of sepsis (blood poisoning), which can progress quickly and requires immediate IV antibiotics and fluids
2. Ask the patient to try urinating and measure how much urine comes out each time — why: The swollen prostate can block the urethra causing urinary retention (inability to empty the bladder), which damages the kidneys and bladder if not caught early
3. Give the prescribed fluoroquinolone antibiotic on time without missing doses — why: Bacteria causing acute prostatitis can spread into the bloodstream within hours, and antibiotics must reach high enough levels in the prostate tissue to kill the germs and prevent sepsis