

Acute Urinary Retention

A plain-English guide for you and your family

WHAT IS HAPPENING

Normally, your bladder fills with urine and stretches like a balloon. When you need to go, the bladder muscle squeezes while a ring-shaped valve at the bottom opens, letting urine flow out through a tube called the urethra. In acute urinary retention, something blocks the flow or stops the bladder muscle from working, so urine piles up inside and cannot escape. Common causes include an enlarged prostate (a walnut-sized gland that wraps around the urethra in men) pressing on the tube, a kidney stone stuck in the urethra, scar tissue (called a stricture) narrowing the tube, a blood clot, severe constipation (hard stool pressing on the bladder from outside), nerve damage from diabetes or spinal cord injury, or medicines like decongestants and pain pills that stop the bladder from squeezing. The trapped urine stretches the bladder, causing pain low in your belly just above the pubic bone. You feel an intense urge to urinate but nothing comes out. If the blockage is not fixed quickly, the pressure backs up into the kidneys like water backing up behind a clogged drain, and that can damage them. A doctor can slide a thin, flexible tube called a catheter through the urethra into the bladder to drain the urine right away. Once the urine drains, the pressure drops, the pain stops, and the kidneys are protected. The pain, the urge to go but not being able to, and the swollen bladder you can feel are all your body's alarm system telling you something is blocked and needs urgent help.

What you might feel

- Suprapubic pain or pressure
- Inability to void despite strong urge
- Palpable suprapubic mass
- Overflow incontinence (paradoxical dribbling)
- Lower abdominal distension
- Restlessness or agitation
- Nausea or sweating
- Little or no recorded urine output for hours
- Flank pain (if backup is severe)

- Acute confusion (especially in elderly)

Call the doctor right away if...

- Sudden inability to urinate after starting a new medicine that dries you out (anticholinergic), a painkiller (opioid), or a cold medicine (decongestant)—these drugs can tip a borderline blockage into complete retention.
- Severe low-belly pain with a firm lump you can feel and no urine at all for more than 6 to 8 hours—risk of kidney damage climbs fast.
- Blood tests show rising creatinine or falling urine output, meaning backed-up urine is starting to hurt the kidneys (acute kidney injury from obstruction).
- New leg weakness, numbness in the groin or buttocks (saddle area), or loss of bowel control—these are red flags for cauda equina syndrome (pinched nerve roots at the bottom of the spine), which needs emergency MRI and surgery.
- In a person with spinal cord injury: sudden high blood pressure, slow heart rate, pounding headache, and flushing or sweating above the injury level—this is autonomic dysreflexia from bladder stretch and is a medical emergency (can cause stroke or seizure if not relieved immediately).

What the care team will do

- Perform a bladder scan or palpate the lower abdomen to confirm a distended bladder before calling the provider for a catheter order.
- Insert a urethral Foley catheter using strict sterile technique, and drain the first 1000 mL, then clamp the catheter for 15 to 30 minutes before draining the next 1000 mL.
- Measure and document the total volume of urine drained, its color, clarity, and any blood or sediment.
- Monitor vital signs every 15 minutes during drainage and for 1 hour afterward, watching for low blood pressure (hypotension), a fast heart rate (tachycardia), or signs of shock.
- Review the medication list with the provider and hold or discontinue anticholinergics, opioids, decongestants, and antihistamines that contributed to retention.
- Check serum creatinine and blood urea nitrogen (BUN, waste products filtered by kidneys) if retention has lasted more than 12 hours or the patient has back pain or nausea.
- Secure the catheter to the inner thigh with a StatLock or tape to prevent urethral traction and trauma, and hang the drainage bag below bladder level.
- Teach the patient and family that the catheter will remain in place for 1 to 3 days to rest the bladder, and explain the plan for a voiding trial after the bladder recovers.

Medicines you may be given — and why

Foley catheter with slow drainage protocol

When the bladder suddenly cannot empty, it stretches like an overfilled water balloon. The walls get damaged and tiny blood vessels inside become weak and leaky. If you drain all the urine at once, those fragile vessels pop open and bleed (you see blood in the urine). At the same time, the sudden pressure drop makes blood vessels all over the body suddenly widen, and blood pressure can crash dangerously low. Draining slowly—taking out 1 liter, then pausing—lets the bladder walls shrink back gently, gives the blood vessels time to heal and tighten up, and keeps blood pressure stable. Think of it like slowly letting air out of a stretched balloon instead of popping it.

Tamsulosin

In men with an enlarged prostate, the prostate tissue and the muscle ring at the bladder neck squeeze the urethra like a tight fist around a garden hose. This squeezing happens because a chemical messenger called norepinephrine (released by stress nerves) locks onto alpha-1A receptors on the muscle cells, telling them to stay tight. Tamsulosin blocks those alpha-1A receptors so norepinephrine cannot land. Without that signal, the muscle relaxes, the urethra opens wider, and urine flows more easily. Think of it as unlocking a clenched fist around the hose—the water (urine) can now pass through.

Finasteride or Dutasteride

Testosterone (the male hormone) is converted inside prostate cells into a more powerful form called dihydrotestosterone (DHT) by an enzyme called 5-alpha reductase. DHT tells prostate cells to grow and multiply, which is why the prostate enlarges over the years. Finasteride blocks type 2 of the enzyme. Dutasteride blocks both type 1 and type 2. With less DHT being made, the prostate shrinks by 20 to 30% over 6 to 12 months. A smaller prostate squeezes the urethra less, so urine flows better. Think of it like deflating a balloon pressing on a straw—the straw (urethra) opens up as the balloon (prostate) shrinks.

Clean intermittent catheterization (self-catheterization)

When the detrusor muscle (the bladder's main squeezing muscle) is too weak to push urine out—from nerve damage in spinal cord injury, multiple sclerosis, diabetes, or after pelvic surgery—or when the prostate or bladder neck stays too tight despite medications, urine builds up and the bladder overstretches. Clean intermittent catheterization means you insert a thin, flexible tube (catheter) through your urethra into your bladder 4 to 6 times a day to drain the urine completely, then remove the tube. This keeps the bladder from overfilling, prevents kidney damage from backpressure, and reduces the risk of infection that comes with a catheter left in

place all the time. Think of it like manually emptying a sink with a broken drain—you use a cup to scoop out the water regularly so it does not overflow.

Suprapubic catheter placement

When a urethral catheter cannot be placed because the urethra is blocked by scar tissue (stricture), torn during a failed catheter attempt (false passage), or squeezed shut by a very large prostate, urology places a suprapubic catheter. This is a thin tube inserted through a small incision in the lower belly directly into the bladder, above the pubic bone. Ultrasound or a filled bladder guides the placement. The catheter stays in place with a small balloon inside the bladder and drains urine continuously into a bag. It bypasses the urethra completely, so it works even when the urethra is impassable. Think of it like drilling a new drain hole in a clogged sink—the water (urine) exits through a new path that is not blocked.

Where this information comes from

- AUA/SUFU Guideline on Non-Neurogenic Chronic Urinary Retention and Overflow Incontinence 2019
- EAU Guidelines on Acute Urinary Retention 2023
- UpToDate Clinical Guidelines
- KDIGO Clinical Practice Guideline for Acute Kidney Injury 2012

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