

Cystoscopy and Ureteral Stent Placement/Exchange

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Open on
phone

WHAT IS THIS PROCEDURE?

The **ureter** is a thin tube that carries urine from the kidney to the bladder. If it gets blocked (by a stone, swelling, a tumor or scar tissue), urine backs up and can cause pain, infection or kidney damage.

A **ureteral stent** is a soft plastic tube that keeps urine flowing past the blockage. It curls at both ends: one curl sits in the kidney and the other in the bladder.

Stent placement: a camera (cystoscope) goes through the urethra into the bladder, so no cuts are needed. A guidewire goes up to the kidney, and the stent slides over it.

Stent exchange: stents can clog over time, so long-term stents are usually replaced every few months. The old stent comes out and a new one goes in over a wire.

Why the C-arm: the camera can't see the kidney, so live X-ray guides the wire and confirms the stent is in place.

KEY POINTS

- **C-arm with foot pedal is needed for all stent exchanges.** Call the tech before the patient is in the room.
- Have all listed equipment in the room, including the **stent grasper** (included in the cysto set).
- Saline irrigation, 1000 cc bag. **No pressure needed.**
- Fluoroscopy monitors go **above** the scope monitor.

SUPPLIES

Open

- Cystoscopy set
- Open-end ureteral catheter, 6 Fr
- Sensor wire
- Contrast: Omnipaque 300 mgI/mL, 30 mL, diluted 50/50
- Surgical jumpsuit (plastic overalls)

Available in room, open only if asked

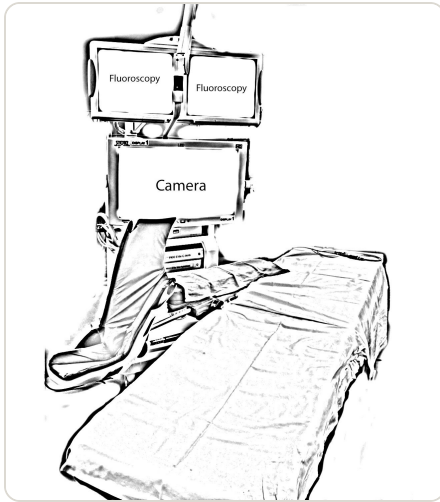
- 2nd Sensor guidewire
- Amplatz Super Stiff Glidewire
- Dual-lumen ureteral access catheter
- Stylet dial 8 Fr with 10 Fr introducer
- Van Buren sounds

GLOVES

- Single glove: 7.5 micro.
- Surgical jumpsuit (plastic overalls).

ROOM SETUP

- Place the fluoroscopy monitors above the scope (camera) monitor, as pictured.



Monitor arrangement: fluoroscopy on top, camera below.

ANESTHESIA

- Can often be performed under MAC.
- Perioperative antibiotics: generally cefazolin (Ancef) 2 g IV, unless contraindicated.

POSITIONING

- C-arm compatible bed.
- Dorsal lithotomy in Yellofin stirrups.
- Left arm tucked.

PREP AND DRAPE

- Povidone-iodine (Betadine) scrub and paint: pubis, perineum, upper third of thighs, and genitals. For female patients, paint only in the vagina.
- After the prep, dry the perineum and place the lithotomy drape.
- **Do not place towels under the drape.** Towels let the drape slip and fall, which contaminates the field.
- Please continue draping after the prep; no need to wait for the surgeon.

IRRIGATION

- Saline, 1000 cc bag.
- **No pressure.** Pressure is only for ureteroscopy; high pressure through a cystoscope can overfill the bladder and cause bladder injury.