

Pyeloplasty is surgery to repair a blockage where the kidney drains into the ureter, the tube that carries urine to the bladder. This junction can be too narrow, trapping urine and causing pain, infections, or kidney strain. Pyeloplasty removes the blocked segment and rebuilds a wide, freely draining connection — the most durable repair, with success over 90%.

About This Procedure

At the top of the ureter, where it meets the kidney's collecting pouch (the **renal pelvis**), a narrowing can slow the drainage of urine. Sometimes a nearby **blood vessel** presses on it. This is called a **UPJ obstruction**. In pyeloplasty, your surgeon:

- Removes the narrowed segment
- Sews the healthy ureter to the kidney pelvis in a **wide, funnel-shaped connection**
- Leaves a soft internal **stent** inside to hold it open while it heals

Most often this is done **robotically or laparoscopically** through a few small keyhole incisions; sometimes through one open incision.

Is It Safe?

Pyeloplasty is a well-established, highly effective operation, with lasting success over 90%. Like any surgery it carries some risk — bleeding, infection, or a temporary urine leak (usually managed by the stent and a drain). The narrowing returning is uncommon and can usually be re-treated.

LEARN THE TERMS

Kidney

The organ that filters your blood and makes urine.

Ureter

The tube that carries urine from the kidney to the bladder.

UPJ

The ureteropelvic junction — where the kidney meets the ureter; the blocked spot.

Renal pelvis

The funnel-shaped pouch where urine collects before entering the ureter.

Ureteral stent

A soft internal tube (a "double-J") that holds the repair open while it heals.

Crossing vessel

A blood vessel that can press on the junction and cause the blockage.

Hydronephrosis

Swelling of the kidney from urine backing up behind the blockage.

Robotic / laparoscopic

Keyhole surgery done through a few small incisions.

WILL IT HURT? The surgery is done under general anesthesia, so you feel nothing during it. Afterward, expect soreness at the small incisions and sometimes shoulder or belly discomfort from the gas used in keyhole surgery. The internal stent can cause some urgency or a mild flank twinge when you urinate. Most people stay 1–2 nights; surgery often takes 2–3 hours.

How to Get Ready (Before Surgery)

- Done under **general anesthesia** — follow all surgery instructions (fasting, and which medicines to hold, including blood thinners).
- A **urine test** checks for infection — an infection must be treated first.
- Plan for a **stent inside for about 4–6 weeks**, and arrange a ride home.

Tell your team ahead of time if you:

- Take a **blood thinner**, or have a current urine infection
- Have had prior kidney or abdominal surgery

What Happens During Surgery

- 1 You are asleep under anesthesia and antibiotics are given.
- 2 The surgeon makes a few small keyhole incisions (or one open incision) and exposes the blocked junction.
- 3 The narrowed segment is removed and the kidney pelvis is reshaped.
- 4 The healthy ureter is sewn to the pelvis in a wide funnel over a stent; a small drain may be left, and the incisions are closed.

After Surgery

- You usually go home in a **day or two**.
- A **stent stays inside for about 4–6 weeks**, then is removed in a quick office cystoscopy.
- Stent symptoms — urgency, a mild flank twinge when urinating, or pink urine — are **normal**.
- **Avoid heavy lifting and straining** for a few weeks, and drink plenty of fluids.

Call your care team or seek care if you have:

- A fever or chills
- Severe or worsening flank or belly pain
- Heavy bleeding, or blood clots in the urine
- Cannot urinate, or persistent nausea or vomiting
- Growing redness, pain, or drainage at an incision

THREE THINGS TO REMEMBER

1. Pyeloplasty removes a blockage where the kidney drains and rebuilds a wide connection — the most durable repair, usually done through small keyhole incisions.
2. To prepare: follow your fasting and medicine instructions, treat any infection first, plan for a stent for about 4–6 weeks, and arrange a ride.
3. Expect the stent to cause some urgency or a flank twinge until it is removed in the office. Call right away for fever, severe pain, heavy bleeding, or inability to urinate.