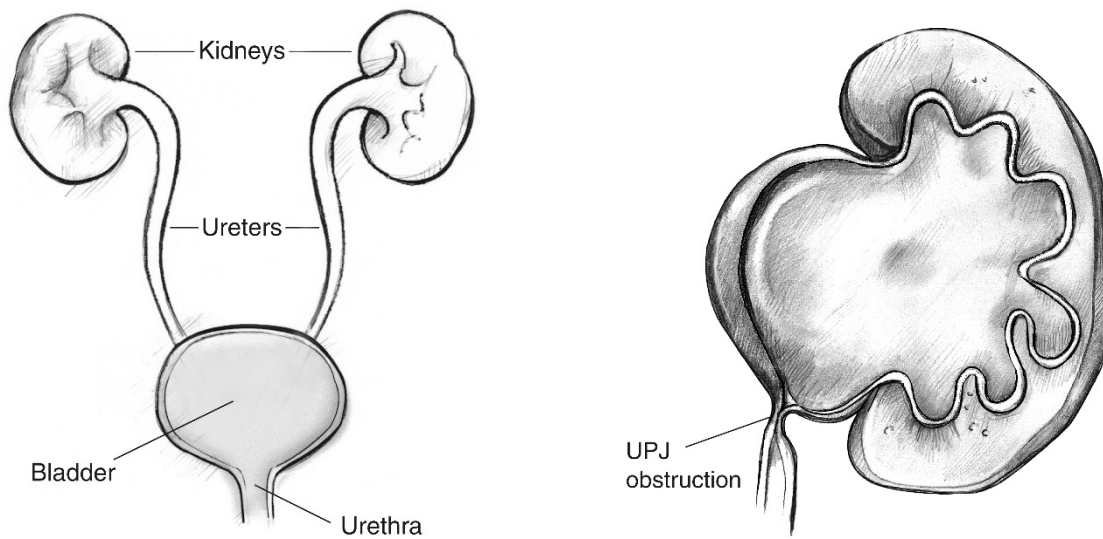


# Robotic-Assisted Laparoscopic Pyeloplasty

## What is a Robotic-assisted Laparoscopic Pyeloplasty?

Robotic-assisted pyeloplasty is a procedure to remove a blockage in the urinary tract that occurs where the kidney meets the ureter—the **Ureteropelvic Junction (UPJ)**. The procedure is done by inserting instruments through 4-6 small (less than 1 inch) cuts in the skin. The instruments are connected to the Davinci robotic system, which is controlled by the surgeon.



In a healthy urinary tract, urine drains easily from the kidney into the ureter, which then carries the urine down to the bladder. The place where the kidney connects with the ureter is called the **Ureteropelvic Junction (UPJ)**. For various reasons, the UPJ can narrow or become blocked and this prevents the urine from flowing down easily into the bladder.

There are several causes for UPJ blockages including kidney stones, scar tissue or infections. Symptoms of UPJ blockage may include pain in the back, sides

and upper abdomen area, and blood in the urine. Left untreated, this condition can eventually lead to worsening kidney function or even loss of a kidney.

### **What steps should I take to prepare for the procedure?**

1. **Do not eat any solid food** (including gum, hard candy or mints) after 12am (midnight) the night before surgery.
2. **Do not drink any milk products** after 12am (midnight). **You may drink water** only and any routine medications up to 4 hours before your surgery.
3. Wear loose, simple clothing which can easily be changed. Leave all jewelry and valuables at home.
4. **Bring along to the hospital a responsible adult companion who will:** remain in the hospital, be available to hospital personnel during your procedure, and assist you upon discharge by driving you home with close observation of your condition.

### **What should I expect before the surgery?**

1. You will have lab work, EKG, and Chest x-ray (if applicable) to ensure your safety during the procedure.
2. Arrive at the Information Desk on the first floor of the Main Hospital at the time requested. Please allow for time to register and change your clothing. Hospital personnel will help and escort you to the designated area.
3. You will receive an antibiotic, through an IV, right before the procedure. You will likely not need antibiotics after surgery.
4. The anesthesia team attaches monitoring devices to you. You are taken to the Operating Room, where the entire procedure will be performed.
5. You will be placed under general anesthesia for the duration of the procedure. This is a medicine that puts you into a deep sleep and blocks pain.

## **What happens during the procedure?**

1. Once you are under anesthesia, you are carefully positioned on your side for the procedure.
  2. The surgeon cuts several small incisions in your stomach and inserts the robotic instruments.
  3. The surgeon then uses these instruments to separate the affected kidney and ureter. The urinary tract is then surgically rebuilt by fixing the blockage and allowing the kidney to easily pass urine down the ureter to the bladder. This does require several stitches in the kidney and ureter that will absorb on their own in a matter of weeks.
  4. An internal plastic tube called a stent is temporarily placed in the ureter to help the healing process. The stent will be removed 3-6 weeks later in the Urology Clinic.
  5. A temporary drain is placed called a Jackson-Pratt drain (JP drain) to help with draining fluid away from the surgical site to prevent infection and other complications.
  6. A Foley urethral catheter is placed in your bladder. A Foley catheter is a tube that is passed through the urethra and into the bladder to drain urine.
- The duration of the surgery depends on the complexity of your case, but on average lasts 3-4 hours.

## **What should I expect after the procedure?**

- You will stay overnight in the hospital. The Foley catheter is removed the morning after surgery in most situations. Usually, the JP drain is removed before discharge.
- Most patients stay a single night in the hospital and leave the following day around lunch time.

## **How can I avoid complications while in the hospital?**

- Use the incentive spirometer provided by the nursing staff. This breathing machine allows filling of the lungs and prevents pneumonias and fevers. You should take this home with you.
- Get up and move around to avoid blood clots called DVTs (Deep Vein Thrombosis) and nausea or vomiting.

## **When will I be ready to leave the hospital?**

You will be ready to go home when you can:

**Tolerate regular food** - you will not have a strong appetite; however, you must prove you can eat a little food without vomiting. The ability to drink liquids, primarily water, is the most critical while your appetite returns over the next few days.

**Control pain with oral pain medications** - you will not be pain-free immediately after surgery, but it should be relatively well-controlled with pain medication. You should take your pain medication to avoid being bedridden. Remember that although this is a surgery performed with small cuts, it is still a big surgery on the inside.

**Walk** - If you were able to walk before surgery, we must make sure you are able to be steady on your feet before you are safe to leave. Walking after surgery is very important as it reduces your risk of pneumonia, blood clots, and gastrointestinal issues.

## **When can I go home?**

Your doctor will make the decision for discharge based on the above criteria and your safety.

If there is a high chance that you will have a complication at home, you will be monitored. However, if you meet the criteria above, it is safer for you at home than in the hospital. Briefer hospital stays can prevent hospital complications such as infections. You will also get better sleep and your body will recover better than if you stay in the hospital too long.

### **When will my stent be removed?**

- You will be discharged with the temporary stent in your ureter. It is removed 3-6 weeks after your surgery with a minor procedure in your urologist's office using a thin tube inserted through the urethra with a light and a lens for viewing (flexible cystoscope) and local anesthesia.
  - You can expect your urine to be blood stained for as long as the stent is in place.
  - You can resume taking aspirin and other antiplatelet/anticoagulant medications once blood in urine begins to clear.
- JP Drain: There may be a small amount of clear drainage from the drain site for a few days. The JP drain may be taken out before going home or taken out in clinic within 1-2 weeks.

### **What medications will I need to take?**

You will receive oral opioid (narcotic) tablets for pain relief at home. These medications may cause constipation. Take a stool softener like Colace, drink juices and eat foods high in fiber (such as fruits and vegetables) to prevent and relieve constipation. To learn more about pain control after surgery visit: <http://www.med.umich.edu/1libr/PainSteeringCommittee/TakingOpioidsSafely.pdf>

Your doctor may also prescribe:

- Flomax (tamsulosin) to relax the ureter
- Pyridium (phenazopyridine) to reduce painful urination.

- Ditropan (oxybutynin) to help bladder spasms related to the ureteral stent.

**For the first 24 hours:**

- Do not drive any motor vehicle or operated motorized equipment for at least 24 hours after your procedure or while taking narcotics.
- Do not make any complex decisions, sign legal documents, or participate in activities potentially harmful to others, such as cooking or nursing infants, without supervision for at least 24 hours after your procedure.
- Do not drink alcohol for at least 24 hours after the procedure.

**When should I call for help?**

- If you are unable to urinate call the clinic. If you are not able to reach a nurse or doctor within 60 minutes, then **go to the Emergency Room.**

**Call Urology Clinic if you have:**

- Fever of more than 101.5 Fahrenheit along with feeling cold and sweats.
- Bright red blood in urine and large clots that make it difficult to urinate.
- Severe pain that persist and is not relieved with pain medications or leg pain

**What is the contact information for the clinic?**

- During business hours between 8 a.m.-5p.m. Monday -Friday, call (734) 936 - 7030.
- After 5 p.m. or on weekends, contact the On Call Urologist at: (734) 936 - 6267.

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