



JAMES BUCHANAN BRADY UROLOGICAL INSTITUTE

LAPAROSCOPIC PYELOPLASTY

OVERVIEW

Laparoscopic Pyeloplasty provides patients with a safe and effective way to perform reconstructive surgery of a narrowing or scarring where the ureter (the tube that drains urine from the kidney to the bladder) attaches to the kidney through a minimally invasive procedure.

This operation is used to correct a blockage or narrowing of the ureter where it leaves the kidney. This abnormality is called a ureteropelvic junction (UPJ) obstruction which results in poor and sluggish drainage of urine from the kidney. UPJ obstruction can potentially cause abdominal and flank pain, stones, infection, high blood pressure and deterioration of kidney function.

When compared to the conventional open surgical technique, laparoscopic pyeloplasty has resulted in significantly less post-operative pain, a shorter hospital stay, earlier return to work and daily activities, a more favorable cosmetic result and outcomes identical to that of the open procedure.

OUR SURGEONS

[Mohamad E. Allaf, MD](#)



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APPOINTMENTS

Johns Hopkins Hospital Patients

For appointments please use the phone numbers listed above.

For directions to Johns Hopkins Hospital please use the following link <http://urology.jhu.edu/patients/index.php>

PRIOR TO THE SURGERY

Preoperative consultation

During your initial consultation with your surgeon, he will review your medical history as well as any outside reports, records, and outside X-ray films (e.g. CT scan, MRI, sonogram, renal scans, etc.).

A brief physical examination will also be performed at the time of your visit. If your surgeon determines that you are a candidate for surgery, you will then meet with a Patient Service Surgery Coordinator to arrange for the date of your operation.

NOTE: It is very important that you gather and bring all of your X-ray films and reports to your initial consultation with your surgeon.

What to expect prior to the surgery

Since insurance companies will not permit patients to be admitted to the hospital the day before surgery to have tests completed, you must make an appointment to have pre-operative testing done at your family doctor or primary care physician's office within 1 month prior to the date of surgery.

These results need to be faxed by your doctor's office to the **Pre-operative Evaluation Center** at **443-287-9358** two weeks prior to your surgery. Please call **The Documentation Center** at **410-955-9453** two weeks before your surgery date to confirm that this information was sent.

Once your surgical date is secured, you will receive a form along with a letter of explanation to take to your primary care physician or family doctor in order to have the following preoperative testing done prior to your surgery.

- Physical exam
- EKG (electrocardiogram)
- CBC (complete blood count)
- PT / PTT (blood coagulation profile)
- Comprehensive Metabolic Panel (blood chemistry profile)
- Urinalysis

Preparation for surgery

Medications to Avoid Prior to Surgery

Aspirin, Motrin, Ibuprofen, Advil, Alka Seltzer, Vitamin E, Ticlid, Coumadin, Lovenox, Celebrex, Voltaren, Vioxx, Plavix and some other arthritis medications can cause bleeding and **should be avoided 1 week prior to the date of surgery** (Please contact your surgeon's office if you are unsure about which medications to stop prior to surgery. Do not stop any medication without contacting the prescribing doctor to get their approval).

Bowel Preparation and Clear Liquid Diet

Do not eat or drink anything after midnight the night before the surgery and drink one bottle of Magnesium Citrate (can be purchased at your local pharmacy) the evening before your surgery.

Drink only clear fluids for a 24-hour period prior to the date of your surgery. Clear liquids are liquids that you are able to see through. Please follow the diet below.

Clear Liquid Diet

Remember not to eat or drink anything after midnight the evening before your surgery. Clear liquids are liquids that you are able to see through. Please follow the diet below.

- Water

- Clear Broths (no cream soups, meat, noodles etc.)
 - Chicken broth
 - Beef broth

- Juices (no orange juice or tomato juice)
 - Apple juice or apple cider
 - Grape juice
 - Cranberry juice
 - Tang
 - Hawaiian punch
 - Lemonade
 - Kool Aid
 - Gator Aid

- Tea (you may add sweetener, but no cream or milk)

- Coffee (you may add sweetener, but no cream or milk)

- Clear Jello (without fruit)

- Popsicles (without fruit or cream)

- Italian ices or snowball (no marshmallow)

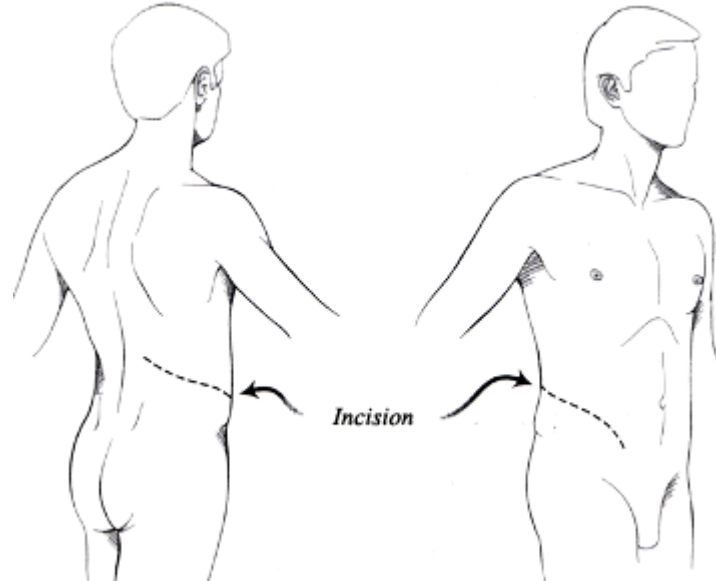
THE SURGERY

The Operation

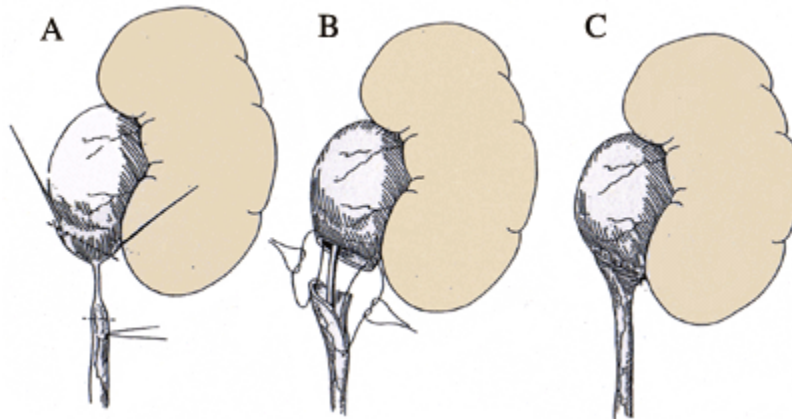
Laparoscopic pyeloplasty is performed under a general anesthetic. The typical length of the operation is 3-4 hours. The surgery is performed through 3 small (1cm) incisions made in the abdomen. A telescope and small instruments are inserted into the abdomen through these keyhole incisions, which allow the surgeon to repair the blockage/narrowing without having to place his hands into the abdomen.

A small plastic tube (called a ureteral stent) is left inside the ureter at the end of the procedure to bridge the pyeloplasty repair and help drain the kidney. This stent will remain in place for 4 weeks and is usually removed in the doctor's office. A small drain will also be left exiting your flank to drain away any fluid around the kidney and pyeloplasty repair.

Open Procedure

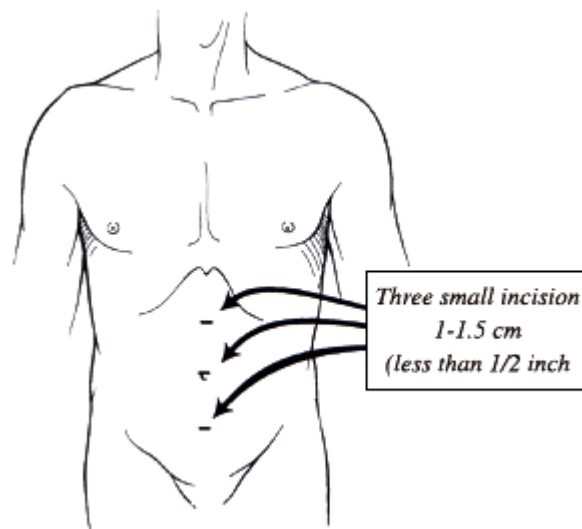


Ureteropelvic Junction (UPJ) Obstruction



Novac, A.C. and Stroom, S.B.: Surgery of the kidney. In Stamey, T.A., Retik, A.B., Walsh P.C., Cambell's Urology Sixth Edition. Philadelphia: W.B. Saunders Co. 1992, p. 2483

Laparoscopic Procedure



Potential Risks and Complications

Although this procedure has proven to be very safe, as in any surgical procedure there are risks and potential complications. The safety and complication rates are similar when compared to the open surgery. Potential risks include:

- **Bleeding:** Blood loss during this procedure is typically minor (less than 100 cc) and a blood transfusion is rarely required. If you are still interested in autologous blood transfusion (donating your own blood) prior to your surgery, you must make your surgeon aware. When the packet of information is mailed or given to you regarding your surgery, you will receive an authorization form for you to take to the Red Cross in your area.
- **Infection:** All patients are treated with broad-spectrum intravenous antibiotics prior to starting the surgery to decrease the chance of infection from occurring after surgery. If you develop any signs or symptoms of infection after the surgery (fever, drainage from your incision, urinary frequency, discomfort, pain or anything that you may be concerned about) please contact us at once.
- **Hernia:** Hernias at incision sites rarely occur since all keyhole incisions are closed carefully at the completion of your surgery.
- **Tissue / organ injury:** Although uncommon, possible injury to surrounding tissue and organs including bowel, vascular structures, spleen, liver, pancreas and gallbladder could require further surgery. Injury could occur to nerves or muscles related to positioning.
- **Conversion to open surgery:** this surgical procedure may require conversion to the standard open operation if extreme difficulty is encountered during the laparoscopic procedure. This could result in a larger standard open incision and possibly a longer recuperation period.
- **Failure to correct UPJ obstruction:** Roughly 3 % of patients undergoing this operation will have persistent blockage due to recurrent scarring. If this occurs additional surgery may be necessary.

WHAT TO EXPECT AFTER SURGERY

During your hospitalization

Immediately after the surgery you will be taken to the recovery room and transferred to your hospital room once you are fully awake and your vital signs are stable.

- **Hospital Stay:** The length of hospital stay for most patients is approximately 1-2 days.
- **Diet:** You can expect to have an intravenous catheter (IV) in for 1-2 days. (An IV is a small tube placed into your vein so that you can receive necessary fluids and stay well hydrated until you are able to tolerate a diet; in addition it provides a way to receive medication). Most patients are able to tolerate ice chips and small sips of liquids the day after surgery and regular food the next day. Once on a regular diet, pain medication can be given by mouth instead of by IV or shot.
- **Postoperative Pain:** Pain medication can be controlled and delivered by the patient via an intravenous patient-controlled analgesia (PCA) pump or by injection (pain shot) administered by the nursing staff. You may experience some minor transient shoulder pain (1-2 days) related to the carbon dioxide gas used to inflate your abdomen during the laparoscopic surgery.
- **Nausea:** You may experience some nausea related to the anesthesia or pain medication. Medication is available to treat persistent nausea.
- **Urinary Catheter:** You can expect to have a urinary catheter draining your bladder (which is placed in the operating room while the patient is asleep) for approximately 2 days after the surgery. It is not uncommon to have blood tinged urine for a few days after surgery.
- **Drain:** You will have a drain coming out of a small incision in your side. This drain is placed in the operating room around the operative site to prevent blood and fluid from building up around the kidney and pyeloplasty repair. The drainage typically appears blood-tinged. It is usually removed the day the urinary catheter is removed. If persistent high volume drainage occurs, you may have to go home with the drain and have it removed in your doctor's office.
- **Fatigue** is common and should subside within a few weeks following surgery.
- **Incentive Spirometry:** You will be expected to do some very simple breathing exercises to help prevent respiratory infections by using an incentive spirometry device (these exercises will be explained to you during your hospital stay). Coughing and deep breathing is an important part of your recuperation and helps prevent pneumonia and other pulmonary complications.
- **Ambulation:** On the day after your surgery it is very important to get out of bed and begin walking under the supervision of your nurse or family member to help prevent blood clots from forming in your legs. You can expect to have SCD's (sequential compression devices) along with tight white stockings to prevent blood clots from forming in your legs.
- **Constipation/Gas Cramps:** You may experience sluggish bowels for several days following surgery as a result of the anesthesia. Suppositories and stool softeners are usually given to help with this problem. Taking a teaspoon of mineral oil daily at home will also help to prevent constipation. Narcotic pain medication can also cause constipation and therefore patients are encouraged to discontinue any narcotic pain medication as soon after surgery as tolerated.

What to expect after discharge from the hospital

- **Pain control:** You can expect to have some pain that may require pain medication for up to a week after discharge, and then Tylenol should be sufficient to control your pain.
- **Showering:** You may shower after returning home from the hospital. Your wound sites can get wet, but must be patted dry immediately after showering. Tub baths are not recommended in the first 2 weeks after surgery as this will soak your incisions and increase the risk of infection. You will have adhesive strips across your incisions. They will fall off in approximately 5-7 days on their own. Sutures underneath the skin will dissolve in 4-6 weeks.
- **Activity:** Taking walks are advised. Prolonged sitting or lying in bed should be avoided. Climbing stairs is possible, but should be taken slowly. Driving should be avoided for at least 1-2 weeks after surgery. Absolutely no heavy lifting (greater than 20 pounds) or exercising (jogging, swimming, treadmill, biking) until instructed by your doctor. Most patients return to full activity on an average of 3 weeks after surgery. You can expect to return to work in approximately 2-4 weeks.
- **Follow up appointment:** You will need to call the Johns Hopkins Out Patient Urology Clinic at 410-955-6707 after your surgery date to schedule a follow up appointment as instructed by your surgeon...
- **Stent follow up:** The stent will remain in place for approximately one month and will then be removed in the doctor's office through a cystoscope (a small telescoped passed down the urethra to retrieve the stent). It is not uncommon to feel a slight amount of flank fullness and urgency to void, which is caused by the stent. These symptoms often improve over time.