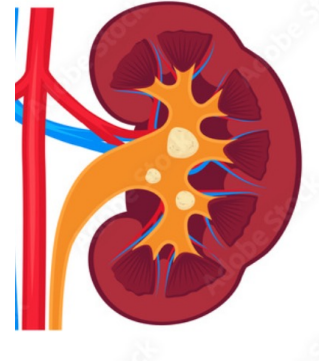


Percutaneous Nephrolithotomy (PCNL)

Patient Guide

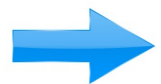
Procedure

- A **percutaneous nephrolithotomy (PCNL)** is a minimally invasive surgery to treat kidney stones that are generally >1.5cm. This approach allows for >90% stone free rates compared to other methods.
- A **mini-PCNL** is a similar surgery using a smaller incision to remove stones. This may be performed depending on stone size and location.



Prior to Surgery

- At your clinic visit, your surgeon will review with you (1) your anatomy, (2) stone size, (3) stone location, and (4) risks and benefits of the procedure.
- Depending on your anatomy, we may request our **Interventional Radiologists** to place a percutaneous nephrostomy (PCN or PCNU) tube prior to your procedure. This will allow your surgeon to access your kidney from the back.
- Up to 6 weeks before your procedure, your surgeon will collect a urine culture to ensure there is no UTI. If so, he/she will prescribe an antibiotic to start within the week prior to surgery.
- If you take any blood thinners (ie: Xarelto, Eliquis, Aspirin), please discuss with your surgeon prior.
- The hospital will call you 1-2 days prior to surgery to confirm arrival time and location.
- No eating or drinking after midnight prior to your procedure unless otherwise instructed.
- Your surgeon will meet you in the pre-operative area before surgery and review consent.

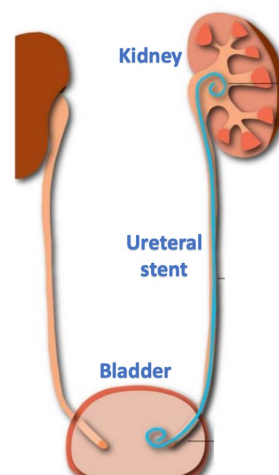


Percutaneous Nephrolithotomy (PCNL)

Patient Guide

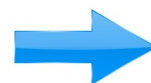
During Surgery

- Your procedure requires approximately 2-4 hours of general anesthesia.
- You will come out of surgery with a **foley catheter** to drain your bladder that will most likely be removed the morning after surgery. Your urine will be pink after surgery.
- Your surgeon will leave a **ureteral stent** at the end of surgery. The stent may be attached to a string at the end of your urethra. If so, he/she will instruct you or a family member when it can be removed.
- You may also come out with a **PCN tube** from your back depending on the size of your stone and any concern for bleeding. If there is no tube in your back, your incision will be closed with a dissolvable suture and gauze/ tape which can be removed in 48 hours.
- There is <10% chance you may come out with a **chest tube** in the event there is a concern for fluid in your lungs or a lung injury.



After Surgery (While in hospital)

- You will stay with us in the hospital on average 1 night.
- You may have light food the night of your surgery.
- You will be given IV and oral pain medications to alleviate your pain.
- It is important to use the breathing machine given to you after surgery 10x/hour.
- Your catheter will most likely be removed the morning after surgery.



Percutaneous Nephrolithotomy (PCNL)

Patient Guide

Discharge Instructions

Pain You may experience (1) flank pain (2) pain with urination, (3) stent discomfort, (4) blood in the urine, (5) bladder spasms, among others. **This is all normal!** You will be prescribed a pain medication that can be alternated with Tylenol as needed. You may also be prescribed:

- ✓ **Phenazopyridine:** to help with pain with urination. Turns urine orange.
- ✓ **Flomax:** to prevent stent discomfort. To be taken nightly at bedtime
- ✓ **Oxybutynin:** to prevent bladder spasms. Can cause inability to urinate.
- ✓ **Antibiotics:** to prevent a urinary tract infection

Activity You should walk and climb stairs. You may perform household duties. No heavy lifting (>10 lbs) or strenuous exercise for 3 weeks. No running for 2 weeks.

Bathing You may shower day after surgery, but no bathtubs, jacuzzis, or swimming pools for 1 week. You may remove the gauze and tape after 48 hours.

Diet You may have a decreased appetite after surgery. You may gradually resume your normal diet once you have started passing gas or had a bowel movement.

Driving May resume driving 48 hours after surgery if not taking any pain medications.

School/Work You may return to work/school 2-4 days after surgery on light duty for 2 weeks.

Expectations You may experience mild blood in urine, constipation, bloating, bladder spasms, bruising, among others. These should resolve within one week after surgery.

When to call Please call your surgeon (or in severe cases, present to the ER) if any of the following occur:

- ❖ you have a fever >101 F
- ❖ you cannot have a bowel movement within 3-5 days
- ❖ you are vomiting
- ❖ you have leg swelling or experience shortness of breath or chest tightness
- ❖ Have significant blood in the urine which is not improving or develop clots
- ❖ your pain is not controlled with medication

Follow-up We will see you in clinic in 2-3 weeks to review your stone and/or remove the stent if not on a string. Please call our office if you do not have an appointment already.