After PNL (Percutaneous Nephrolithotomy) Surgery
How to care for yourself at home
General information

A PNL is a minimally invasive (Keyhole) procedure with the highest success rate in removing kidney stones. This operation is usually required for very large or hard stones that failed to break with other treatments such as shock wave lithotripsy.

Using ultrasound and x-ray machines, a needle is placed through the skin into the drainage system of the kidney and a guidewire is inserted. A balloon is passed over the guidewire which then enlarges the incision to allow placement of a 1 cm hollow tube that runs from the outside of the body into the inside of the kidney. A telescope is placed down the hollow tube to see the stone(s) and the stone(s) is removed intact or is broken before removal. At the end of the procedure a small plastic drainage catheter called a nephrostomy tube is placed in the kidney to temporarily drain urine.

You should expect to awaken from the anaesthetic with a nephrostomy tube, placed inside a bag (urostomy pouch) or taped on the side of your back and a catheter (tube) placed in your bladder. Most patients will have these tubes removed in the first 24 to 48 hours after surgery.

How long will I be in the hospital?

Expect to go home within 1 to 2 days. A test called a CT scan will be done the morning after your procedure to check if the stone(s) was completely removed. The nephrostomy tube will be removed after your surgeon looks at the CT scan results. In a small number of patients, the nephrostomy tube will be left in longer. Your surgeon will let you know after the procedure if the nephrostomy tube needs to be left in longer.

What Activities can I do after the procedure?

• You will be in bed for the first 4 hours after the procedure.
• You will be encouraged to walk and gradually increase walking as tolerated.
• Avoid heavy lifting (more than 15 lbs.) for 4 weeks after your procedure.
• Avoid fast stair climbing, long walks and driving for the first 3 weeks.
• Avoid sexual activity for 2 weeks after the surgery.

Can I Take Baths/Showers?

• You may take a shower with the urostomy pouch on. Just towel dry the pouch after showering.
• If you have a dry dressing in place, you may take a shower. Just remove the wet dressing and replace it with a new dressing after gently drying the wound.
• Avoid tub baths or swimming in a pool until the skin puncture site on your side has completely healed over (usually 2 to 3 weeks).
What should I eat and drink?

• Drink plenty of fluids especially water (8 to 10 cups). Avoid tea, coffee, pop and alcoholic beverages. Limit drinking fluids after 6:00 pm so that you do not need to get up at night to empty your bladder.

• Food with high fiber is recommended as pain medications can be constipating.

• Eat your normal diet once you get home.

Will I have pain?

• You may feel mild to moderate pain to your side after your surgery.

• Take pain medication as ordered by your surgeon. If your surgeon does not give you a prescription for pain medication, you may take Tylenol (plain or extra strength) according to the package instructions.

• Talk to your surgeon if you normally take ASA (aspirin) or other blood thinners.

Urine drainage and colour

• Your catheter (tube in the bladder) will be removed the morning after your procedure. When the catheter is first removed, you may feel burning when urinating as well as feeling the need to urinate frequently. This is normal and should decrease with time. When the nephrostomy tube is removed, some urine will drain through the keyhole opening on your side. This will stop in approximately 7 to 10 days in most patients.

• You may continue to pass “sand” in your urine as you pass any leftover stone material. This is normal for the first 7 to 10 days.

• You should expect to have cranberry coloured urine with small clots draining from your nephrostomy tube and/or your bladder for 7 to 10 days. Gradually your urine will return to its normal yellow colour.

If you go home with a Nephrostomy tube

• Your nurse will teach you and your family how to care for the tube, the pouch covering the tube and how to clamp and unclamp the tube if needed.

• You will have a visit by a home-care nurse.

• A follow up scan may be arranged by your surgeon to decide when the tube should be removed.

If you go home without a Nephrostomy tube

• If your tube is removed after the CT scan, you will go home with a urostomy pouch (a plastic bag) covering the keyhole opening.

• Your nurse will teach you and your family how to empty the urine from this bag. Once the bag is dry (usually within 1 to 2 days) you may remove the pouch and flange (sticky part holding the pouch on) by peeling it off like a band-aide. Cover the keyhold opening with a dry bandage. If this bandage becomes wet, change it with a new bandage. After 1 to 2 days of the bandage staying dry, you can leave the bandage off.

• The small incision made to your skin usually closes up within 2 to 3 days. Remove the bandage if there is no drainage from the incision.
Notify your doctor or go to the emergency department if any of the following happens:

- You get chills and fever (temperature above 38.4°C or 101.2°F).
- You have increased pain not relieved by the prescribed medication especially with a reduction of urine draining from your nephrostomy tube.
- You continue to have nausea and/or vomiting.
- A large amount of urine is draining from the keyhole opening (you are needing to empty the urostomy pouch every 1 to 2 hours) after 1 week.
- Blood in your urine increases (ketchup coloured) or you are passing large (2 dollar coin sized) clots in your urine.
- Your nephrostomy falls out or it breaks.
- You have swelling around the tube and it is red and tender.
- You have a foul smelling discharge coming from around the tube.

Besides these general instructions remember:

You may also call the Nurse Helpline at 8-1-1.