

## Nephrostomy– For Patients

### **What is a Nephrostomy?**

A nephrostomy is a procedure in which a plastic tube called a catheter is placed through your skin into your kidney to drain your urine. A specially trained doctor, known as an interventional radiologist, performs this procedure in the radiology department. This doctor uses X-Ray imaging to help guide the catheter into exactly the right place to drain your urine. Nephrostomy drainage is performed instead of surgery.

### **Why do I need a nephrostomy?**

The most common reason to need a nephrostomy is blockage of the ureter. The kidney makes urine, which drains down the ureter from the kidney to the bladder. When your ureter is blocked, the urine backs up in your kidney. Signs of ureter blockage include pain and fever, but some people have no symptoms. Even if you have no symptoms, a blocked ureter needs treatment because if urine cannot drain out of the kidney, the kidney may stop working. Nephrostomy drainage can relieve the symptoms of ureter blockage and keep the kidney working by giving the urine a way to leave the kidney.

Another reason to need a nephrostomy is if a hole from the ureter or bladder, allowing urine to leak out into other areas of your body. This leakage can cause pain and severe infection. Nephrostomy drainage can stop the leaking and help the hole to heal.

A third reason to need a nephrostomy is to help prepare you for surgery or for some procedure on your kidney or ureter, such as removal of a large kidney stone.

### **Will I be put to sleep (under anesthesia) during the procedure?**

No. The patient is given an appropriate medication for conscious sedation and a local anesthetic.

### **How do you prepare for the procedure?**

If you already a patient in the hospital your nurses and doctors will give you instructions on how to prepare for your nephrostomy drainage. If you are being admitted to the hospital on the morning of your nephrostomy drainage follow these instructions:

**EATING:** Do not eat any solid food after midnight on the night before you procedure. You may drink clear fluids.

**MEDICATION:** Most people can continue to take their prescribed medicines. If you are a diabetic and take insulin, ask your doctor about modifying your insulin dose for the day of your procedure. If you take the blood thinner Coumadin, you must tell your doctor so that it can be stopped. Bring all your medications with you. Also, blood thinners such as aspirin or Plavix may need to be stopped with your physician's permission.

Everybody having a nephrostomy drainage will have blood tests done close to the day of the procedure. On the day of the procedure, an intravenous (IV) line will be placed in one of your veins and antibiotics will be given to you through it. The antibiotics help to prevent infection. The IV will be used to give you other medicines and fluids during the procedure. It will stay in place until after your nephrostomy drainage is complete. Before your nephrostomy drainage begins, a member of the

interventional radiology team (doctor, nurse, or technologist) will talk with you about the procedure in detail and answer any questions you may have.

### **What is a nephrostomy drainage like? Does it hurt?**

Before the procedure starts, pain medication will be given to you through your IV. In addition, your interventional radiologist will use local anesthetic to numb the skin and deeper tissues in the area of your back where the catheter will be placed. After that, you will only feel some pressure during the procedure.

Nephrostomy drainage has three major steps: placement of a needle into the kidney, placement of a guide wire farther in the kidney, and placement of the drainage catheter.

### **How long does the procedure last?**

The procedure usually lasts about one hour, but it is not possible to know exactly how much time your procedure will require.

### **What happens after the nephrostomy drainage?**

After the procedure is over, you will go to your hospital room. Your nursing staff will observe you to make sure that you are all right. They will let you know when you can eat and how long you need to stay in bed. Because everyone is different, it is not possible to predict how many days you will need to stay in the hospital.

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

If you had symptoms of ureter blockage before your nephrostomy drainage catheter was placed, you will notice those symptoms gradually going away. You will be sore for seven to 10 days after your catheter is inserted.

The nephrostomy drainage catheter is about the same size as IV tubing or a bit smaller. The catheter will be connected to a drainage bag and your urine will drain out of your body into the bag. In some cases, the drainage bag will not be needed after a few days and the catheter will be capped off.

### **How long will I need the drainage catheter?**

It depends on why you need your catheter. If the catheter is to be placed to relieve blockage of the ureter, you will need the catheter as long as the blockage is present. Your ureter can be blocked by stones, infection, scar tissue or tumor. Some patients need their nephrostomy drainage catheter for the rest of their lives. If your catheter is to be placed because you have a hole in your ureter, you will need the catheter until the hole has healed. If your catheter is to be placed in preparation for surgery, or another procedure on your kidney or ureter, you will the catheter until afterwards. Your doctors will discuss with you how long you are likely to need a nephrostomy drainage catheter.

### **What are the risks of nephrostomy drainage?**

Nephrostomy drainage is safe, but complications can occur. Two most frequent complications are bleeding and infection. That is why you need to stay in the hospital for a while after the catheter is placed.

### **What are the benefits of having a nephrostomy drainage?**

If your ureter is blocked, the nephrostomy drainage catheter will relieve your symptoms such as pain, fever or chills. Before this drainage procedure was developed, patients with blocked ureters had to undergo surgery to drain the urine.

In some cases, the catheter can help your doctors eliminate the source of the blockage. For example, if your ureter is blocked with stones, your doctors may be able to remove the stones through the catheter tract without surgery. If your ureter is blocked with scar tissue, your doctors may be able to use instruments through the catheter tract to enlarge the ureter in the area of scarring. Your doctors will talk to you about the best way to manage the cause of your blocked ureter.

If you have a hole in one of your ureters, the catheter will drain the urine and help to prevent serious infection while the hole heals. In most cases this makes surgery to close the hole unnecessary.

### **What are the instructions after the procedure?**

- For new nephrostomy placements, limit yourself to light activities for a few days. Increase activity as tolerated. You may shower in 48 hours with the tube site covered. You can disconnect from the drain bag to take a shower; but always reconnect after the shower if your doctor wants you to remain to a bag. You may have NOT need a bag, because we or your doctor have determined a bag is not necessary for you. However, it is good to have an extra bag in case you need to reconnect to it. If your nephrostomy was exchanged today, you may increase your activities over the next 24 hours and shower tonight.
- If you received any sedation today, do not drive, work, or make any major life or legal decisions for next 48 hours. Eat lightly today. No swimming or submerging of the catheter site. Fill any new prescriptions and begin taking them as directed.
- Change your bandage 2-3 times a week with appropriate-sized band aide or gauze/tape. Wash your hands well. Clean the site with a wound cleanser like hydrogen peroxide and let the tube and skin air dry. You may apply an antibiotic topical to the site when changing the dressing. Ask your pharmacist for suggestion of a topical antibiotic that does not have neomycin in it. Use things like plastic wrap, press-n-seal, or special dressing covers to protect the tube site during showering or bathing. KEEP the tube well secured to the skin with tape without kinking the tube. Do not trust in the stitch alone to hold your tube in place. If the stitch comes loose or breaks, you do not need a new stitch. BUT you must always use tape to secure the tube to your body. If the tube is accidentally pulled, it will pull at the tape site; instead at the stitch site or tube insertion site.
- You may be asked to flush your nephrostomy tube(s) daily with 10 cc's of sterile water or saline until the output has cleared up. Once the output is clean urine, then we recommend flushing the tube twice a week. The nursing staff will teach you and your family about tube flushes and general tube care. If your urologist or referring doctor prefers that you do not flush the tube, then keep a spare flush handy if needed. Never pull back on the syringe, flush forward only. It is fine to flush FIRST the drain (going into your body) and then as needed to flush the drain line that goes to the bag, to clear any debris stuck in the tubing. During flushing, if you feel resistance, have pain; or see a leak at the tube or skin; stop and connect back to the bag if you have a bag. Call us or your doctor for instructions.
- Clean the drain bag once as follows: Temporarily clamp/cap the drain and disconnect the bag. Open the drain spout of the bag by turning the spout counter-clockwise and soak the bag in a ratio of 2 cups of warm water for every teaspoon of bleach. Swish it as necessary and then let it drain and dry before reconnecting to the drain. Be sure to close the drain spout by turning it back clockwise. You should change out to a new bag every 3 to 4 weeks and more often as needed. Your doctor can tell you how to obtain more bags.
- Call us or the referring doctor for any problems including the following:
  - Fever/chills not resolving or increased pain.
  - Leakage at or around the tube or site or decrease drain output / bloody output / significant change in the output. Keep a daily record of how much is in the bag!
  - Any change for the worse. If not to a bag, connect to a bag for any of problems.
- CALL US if you do not have an appointment with us or if your tube remains in longer than 10 weeks without seeing us.



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**If I have other questions, who do I contact?**

For further questions or concerns about the nephrostomy drainage procedure, please contact Interventional Radiology at 205-934-0152, 205-934-7245, 205-975-4850.