Nephrostomy Catheter Placement

The primary function of the kidney is the removal of poisonous wastes from the blood. Illness occurs when too much of these waste products build up in the blood stream. The waste products, in the form of urine, are stored in the renal pelvis. The urine drains through the ureters to the urinary bladder. The kidneys filter about 50 gallons of blood a day. There are about one and a half liters of urine produced.

A nephrostomy catheter is a flexible tube placed into the kidney to drain fluid trapped in the kidney because of a blockage in the ureter. The ureter is the tube that urine passes through from the kidney to the bladder. When a ureter becomes blocked, urine can back up and cause abdominal or back pain, fever or chills.

A nephrostomy catheter may also be used to remove kidney stones or calculi. It might also be put in when special treatments or procedures are done that require getting into the kidney.

For placement of the catheter, tell your doctor if you are allergic to x-ray or contrast dyes, or iodine.

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Learn more about your health care.
To Prepare

There are things you need to do before your catheter is placed.

Medicines:
- Ask your doctor if you should make any changes to your medicines before this procedure.
- If you take a blood thinner medicine, such as Plavix, Coumadin or aspirin, you may need to stop the medicine before you have this procedure. Check with your doctor about when to stop the medicine. If you have a stent, be sure to talk with the doctor who placed the stent before stopping blood thinner medicines.
- If you have diabetes and take metformin (Glucophage, Glucophage XR) or glyburide/metformin (Glucovance), glipizide/metformin (Metaglip), sitagliptin/metformin (Janumet), rosiglitazone/metformin (Actoplus Met) or any medicine with metformin in it:
  - Do not take the medicine the morning of the procedure.
  - Do not take the medicine for the first 48 hours after the procedure.
  - Restart the medicine on the third day after the procedure.
- If you have diabetes and take insulin, check with your doctor about adjusting your insulin dose the day of the procedure.
- If you have medicines to take the morning of the procedure, take them with small sips of water.
- Bring all of your medicines to the hospital with you.

Eating:
- Do not eat after midnight on the night before your procedure. You may have sips of water with your medicines.

About the Procedure
- Blood work will be done and an IV will be placed in your arm before your procedure. An antibiotic may be given to prevent an infection.
- Your blood pressure, heart rate and oxygen level will be checked during the procedure.
The doctor who will be doing the procedure is called an Interventional Radiologist. The Interventional Radiology team will tell you about the risks and the benefits of the procedure. The most common risks are bleeding and infection. If you have any questions or you do not understand what the Interventional Radiology team has said, please ask so he/she can answer your questions. The doctor will have you sign a consent form.

You will be given pain medicine and sedation to help make you comfortable. The doctors also will use a local anesthetic to numb the skin and the deep tissues where they will be working. You will still feel pressure during the procedure, but not pain.

The procedure will take 2 hours or more. The doctor will place a needle into the renal pelvis. Then a wire is put through the needle into the renal pelvis. The catheter is placed over the wire and then the needle and wire are removed, leaving the catheter in place.

**After the Procedure**

- You will go to your recovery room where your nurse will check your vital signs and the catheter.
- Medicines given through your IV for sedation, along with some local anesthetic to numb the entry site, may cause you to feel sleepy, dizzy or tired.
- **Avoid making any major life or legal decisions for at least 24 hours** because you may not be able to think clearly or remember your actions.
- Your nurse will let you know when you can eat and get out of bed.
- The catheter is about the size of the IV tubing. Sometimes it is connected to a drainage bag and sometimes a cap is placed over the end. The use of a drainage bag or cap is determined by your doctor. How long you will need you drain depends on why it was placed. Your doctors will talk with you about how long you will need to have your catheter.
- You may be sore for 7 to 10 days after the catheter is placed.
What happens after the procedure?

- **If you are an inpatient**, you will go back to your hospital room where your nurse will be checking your vital signs and the drain. You may feel sleepy, tired or dizzy for several hours after the procedure from the medicines. Your nurse will tell you when you can eat and get out of bed.

- **If you are an outpatient**, you will need someone to drive you home after your drain is placed. You may feel sleepy, tired or dizzy for several hours from the medicine you were given.

When To Call Your Doctor

Outpatients: Call (614) 293-2773 or go to the nearest Emergency Room if, in the first 4 to 8 hours after your catheter is put in, you have:

- Active bleeding at the catheter site that does not stop after you put finger pressure on it
- Increasing pain or swelling at or around the catheter site
- Fever of 101 degrees Fahrenheit or greater with or without chills

If you need to contact Interventional Radiology in the evening or on a weekend, please call 614-293-8000. Ask the operator to page the Interventional Radiology resident on call.

See the handout, **Home Care for Your Nephrostomy Catheter**, for information about how to care for your catheter right after placement and long term.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.