

Percutaneous Nephrostomy Tube

This handout explains a nephrostomy tube – what it is, why it is needed, how long you may need it, and possible benefits and risks. It also includes instructions to follow before your procedure to place the tube, what to expect during and after the procedure, and self-care at home.

What is a nephrostomy tube?

A *nephrostomy tube* is a small plastic tube. It is placed through your skin (*percutaneous*) and into your kidney. It will drain urine from your kidney into a *catheter bag* (drainage bag) outside your body.

Why do I need a nephrostomy tube?

You may need a nephrostomy tube if you:

- Have a blockage or a leak in your urinary system.
- Are being treated for kidney stones.

Are there any risks in having a tube placed?

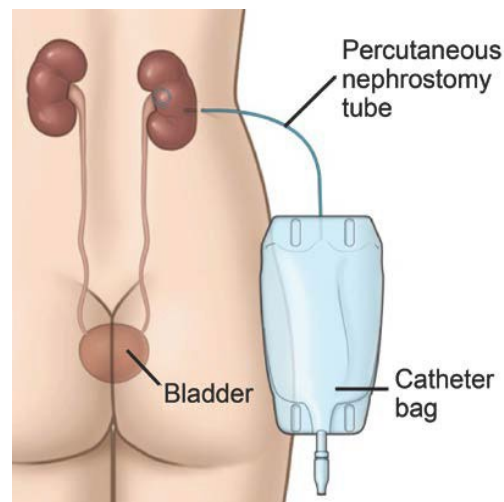
Placing a percutaneous nephrostomy tube is usually a very safe procedure, and the benefits are much greater than the risks. But unexpected problems can occur. The most common complications are:

- Bleeding, if a blood vessel is punctured
- Blood infection, if bacteria get into the bloodstream
- Skin infection, if the tube stays in a long time
- Injury to a nerve or organ such as the bowel

Your doctor will talk with you about your risks. Please be sure to ask any questions and share any concerns you have.

How long will I need the tube?

Nephrostomy tubes may stay in for weeks or months. How long you will need the tube depends on why it was placed and what problem it is treating. We will not keep the tube in any longer than it needs to be.



The nephrostomy tube will drain urine from your kidney into a catheter bag outside your body.



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this handout.

If you need this tube in for a long time:

- It will need to be replaced about every 2 to 3 months. Please talk with your referring healthcare provider.
- When you are discharged from the hospital, you will get instructions on long-term care for the dressing (bandage) and drainage bags

Before Your Procedure

A nurse will call you within 5 days of your procedure. The nurse will give you important instructions and answer any questions you have.

- If you do not understand English well enough to understand the instructions from the nurse or the details of the procedure, **tell us right away**. We will arrange for a hospital interpreter to help you. A family member or friend **cannot** interpret for you.
- Most patients need blood tests done before this procedure. We may be able to do your blood tests when you arrive for your procedure. We will tell you if we need a blood sample before that day.
- If you take any blood-thinning medicines (such as Coumadin, Lovenox, Fragmin, or Plavix), you may need to stop taking the medicine for 3 to 9 days before your procedure. **Do NOT stop these medicines unless your doctor or nurse has told you to do so**. We will give you instructions as needed.
- You **must** arrange for a responsible adult to drive you home after your procedure and stay with you the rest of the day. **You cannot drive yourself home or take a bus, taxi, or shuttle alone.**

Sedation

Before your procedure, you will be given a *sedative* (medicine to make you relax) through an *intravenous line* (IV) in one of your arm veins. You will stay awake but feel sleepy. This is called *moderate sedation*. You will still feel sleepy for a while after the procedure.

For some people, using moderate sedation is not safe. If this is true for you, a member of the anesthesia team will evaluate your health and decide the appropriate level of sedation for your procedure

Let us know **right away** if you:

- Have needed anesthesia for basic procedures in the past
- Have sleep apnea or chronic breathing problems (you might use a CPAP or BiPAP device while sleeping)
- Use high doses of an opioid pain medicine
- Have severe heart, lung, or kidney disease
- Cannot lie flat for about 1 hour because of back or breathing problems
- Have a hard time lying still during medical procedures
- Weigh more than 300 pounds (136 kilograms)

The Day of Your Procedure

To prepare for sedation, follow these instructions exactly. Starting at midnight, the night before your procedure:

- Do not eat or drink anything.
- Do not take any of the medicines that you were told to stop before this procedure.
- If you must take medicines, take them with only a sip of water. Do not skip them unless your doctor or nurse tells you to.
- Do not take vitamins or other supplements. They can upset an empty stomach.

When you go to the hospital, bring a list of all the medicines you take with you.

Please plan to spend most of the day in the hospital. If there is a delay in getting your procedure started, it is usually because we need to treat other people who have unexpected and urgent health issues. Thank you for your patience if this occurs.

At the Hospital

A staff member will give you a hospital gown to put on and a bag to put your belongings in. You may use the restroom at that time.

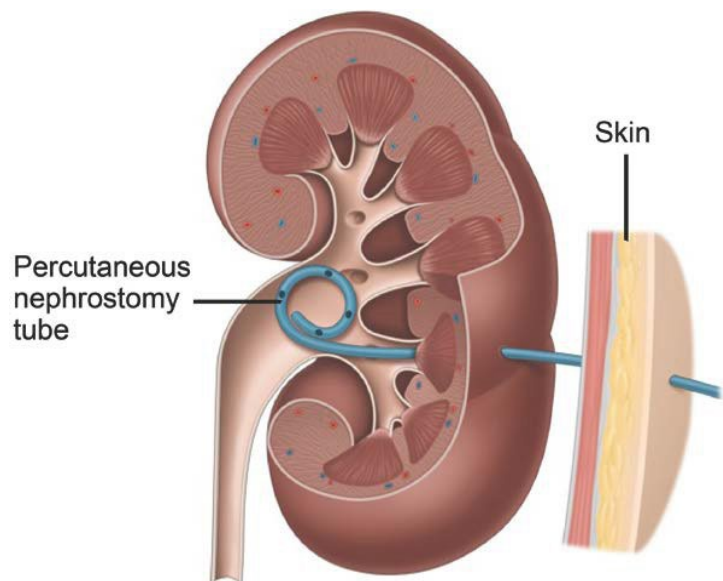
A staff member will take you to a pre-procedure area. There, a nurse will do a pre-procedure assessment. A family member or friend can be with you in the pre-procedure area.

An IV line will be started. You will be given fluids and medicines through the IV.

Your interventional radiology doctor will talk with you about the procedure, answer any questions you have, and ask you to sign a consent form, if you have not already done this.

Your Procedure

- A nurse will take you to the radiology area. This nurse will be with you for the entire procedure.
- If needed, an interpreter will be in the room or will be able to talk with you and hear you through an intercom.
- You will lie on your stomach on a special table. X-rays will be taken so that your doctor can clearly see where to place the nephrostomy tube.



The nephrostomy tube will enter your body through an insertion site in your skin.

- Stickers will be placed on your body. These stickers connect to a monitor and help us keep track of your heart rate.
- You will have a cuff around your arm. It will inflate from time to time to check your blood pressure.
- A radiology technologist will clean your skin around your neck and chest with a special soap. The technologist may need to shave some hair in the area where the doctor will be working. Tell this person if you have any allergies.
- Members of the medical team will ask you to confirm your name and will tell you what we plan to do. This is for your safety
- Your nurse will give you the sedation medicine through your IV to make you feel sleepy and relaxed before we begin.
- Your doctor will apply a local anesthetic (numbing medicine) to the place where the tube will come out of your skin. You will feel a burning for about 5 to 10 seconds, but then the area will be numb. After that you should feel only pressure, but not sharp pain.
- Your doctor will guide a needle to the area where the drain will be placed. Then the doctor will replace the needle with a plastic drain tube about 1/8 inch wide. The tube is held on your skin with stitches and a device like a Band-aid that keeps the tube from slipping or tugging.
- The procedure usually takes about 1 to 2 hours. For some patients, it may last 3 hours or longer. Ask your doctor if you have any questions.

After Your Procedure

- We will watch you closely for a short time in the Radiology department. When you are ready to leave Radiology:
 - If you are an outpatient, you will go to another unit in the hospital. A nurse on that unit will monitor you.
 - If you are an inpatient, you will return to the unit you were on before the procedure.
- You will most likely be able to eat and drink. Your family may visit you.
- If you are an outpatient, you will be able to leave the hospital when we know your tube is working well, and when you are fully awake and can eat and walk.
- Problems after this procedure are uncommon. But if they occur, you may need to stay in the hospital so that we can keep watching you or treat you.
- Before you leave the hospital, your nurse will tell you what activities you can do, how to take care of your nephrostomy tube, and other important instructions. **It is a good idea to have a family member or friend with you when the nurse gives you these instructions.** This person can help you remember the instructions later.

When You Get Home

- Relax at home for the rest of the day. Make sure you have a responsible family member, friend, or caregiver to help you.
- You may feel drowsy or have some short-term memory loss.

For 24 hours after your procedure, do **not**:

- Drive a car
- Use machinery
- Drink alcohol
- Make important decisions or sign legal documents
- Be responsible for the care of children, pets, or an adult who needs care.
- Shower or take a bath
- After 24 hours, you may shower, but be sure to protect the insertion site from getting wet. **Do NOT take a bath.** It is important that the insertion site always stays dry. See “Dressing Care” below.

Medicines

- Resume taking your usual medicines as soon as you start to eat. Take only the medicines that your doctors prescribed or approved.
- Most people have only minor pain after this procedure. If your doctor says it is OK for you to take acetaminophen (Tylenol), this should ease any discomfort you have.
- If your doctor expects you to have more severe pain, you will receive a prescription for a stronger pain medicine. Call us if your pain is not controlled with your prescribed medicines. (See phone numbers on the last page of this handout.)

Caring for Your Nephrostomy Tube

Caring for your new tube is very important. The tube must drain well and the entry site must stay clean to avoid infection. If you need a nephrostomy tube long-term, it will need to be changed every 3 months. Your doctor will tell you if you need to return for a tube change.

- Change your dressing every 5-7 days, or sooner if it gets wet or dirty.
- You may also have a tube holder that keeps the tube in place. Most tube holders must be changed every 2 weeks. If your instructions are different, your nurse will tell you how often to change the tube holder.

Dressing Care

- You will be given a supply of dressings when you leave the hospital. You will need to get dressing supplies on your own after this. Your nurse in the clinic or post-procedure area can advise you on where to get more supplies.
- You may shower after 24 hours, but you will need to cover your dressing with plastic wrap or Aqua Guard patches to keep the dressing dry and intact. Always cover your drain tube site when showering. The Interventional Radiology staff will then tell you what to do when showering.
- Do not take a bath, sit in a hot tub, go swimming, or immerse your body in water while you have a drain in place.
- You may keep the dressing on for up to 5-7 days, but you will need to change it sooner if the dressing becomes loose, wet, or soiled.

Steps to Change the Dressing

1. Carefully remove the dressing. Be careful not to dislodge the tube. **Do NOT use scissors to remove the dressing.**
2. Inspect the site. Look for any redness, or drainage coming out around the drain tube.
3. You may gently clean around the tube with mild soap and water. Pat dry. Do not apply lotion, ointment, or powder around the drain tube.
4. Place a split gauze around the drain tube. Then place a solid gauze over the top of the split gauze.
5. You may cover the gauze with Tegaderm or use tape to secure the gauze to the skin.
6. Keep the Grip-Lock drain tube stabilizer in place until it no longer sticks to your skin. Change it earlier if your skin under the Grip-Lock wings becomes irritated. If you do not have extra Grip-Lock stabilizers, use tape to secure the drain to your skin.

Emptying Your Drainage Bag

You will need to empty your bag before it becomes $\frac{1}{2}$ full. If you were not told to record the amount of fluid, you can empty the bag into the toilet. If you were told to record the amount of fluid in the bag:

- When you empty the bag, make note of the total amount of fluid (output). Drainage bags are marked in milliliters (mL)
- Record your output every day. Bring this written record when you come in for tube evaluations.

Bag Change

A drainage bag will be placed on your drain after your procedure. No bag change is typically required unless the bag leaks or becomes damaged.

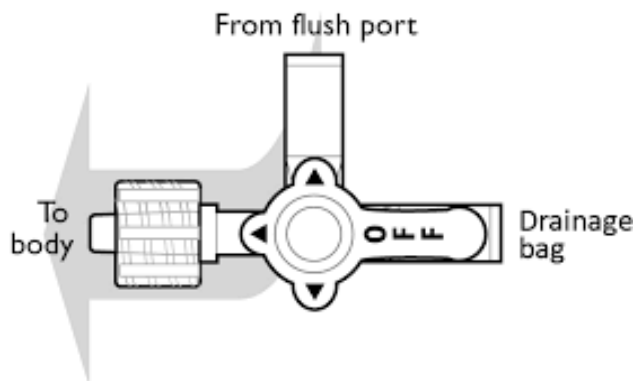
Flushing Your Tube

- Some (but not all) tubes need to be flushed every day to keep them from clogging. Your doctor will tell you if your nephrostomy tube needs to be flushed and how often.
- Your nurse will show you and your caregiver how to flush your tube, if flushing is needed. We will make sure you understand how to do this before you go home

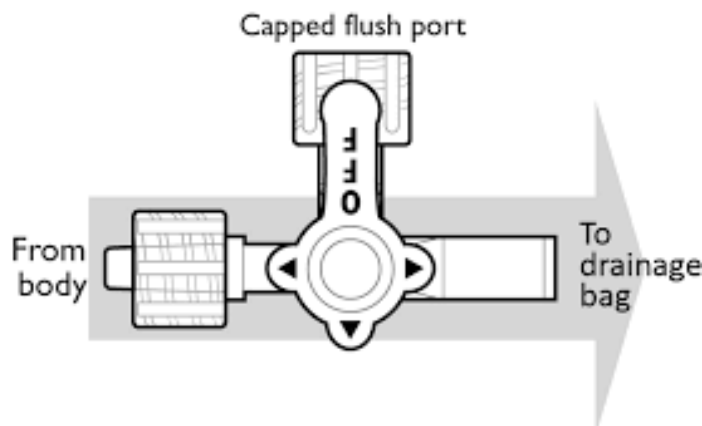
How to Flush Your Tube

1. Turn the switch so it points to the drainage bag (*see drawing*). The word “OFF” (which is on the longest part of the stopcock) will be closest to the drainage bag. This position allows you to inject fluid into the tube from the flush port.

In this drawing, the stopcock switch points to the drainage bag. (The word “OFF” is closest to the drainage bag.) This position allows you to inject fluid into the tube from the flush port.



2. Inject the amount of fluid your doctor told you to use. Most times, this is about 10 cc.
3. Turn the switch so it points to the flush port again (*see drawing*). The word “OFF” (which is on the longest part of the stopcock) will be closest to the flush port. Your drain will now drain into the bag.



4. If your instructions include “clamping” the tube or allowing it to drain internally, turn the switch so it is pointed at your body. This means the word “OFF” (which is on the longest part of the stopcock) is closest to your body. This position closes the channel that drains from your body. **Use this position ONLY to change or empty the bag. This position prevents your tube from draining.**
5. Keep your dressing clean and dry. See “Dressing Care” on page 5.

Activity

- Do not lift anything heavier than 10 pounds (4.5 kg) until your healthcare provider says it is OK.
- Do not do any strenuous activities, such as mowing the lawn, vacuuming, playing sports, or anything that will cause your tubing to be pulled or moved.
- Slowly increase your activity level with short, frequent walks 3 to 4 times a day.
- Do not drive while you are still taking pain medicine. Wait until your healthcare provider says it is OK to drive.

Home Care

- Eat your normal diet.
- Drink 8 to 12 (8-ounce) cups of liquid each day unless you are told to limit liquids because of another condition. About 30 to 60 milliliters of urine should drain into the bag each hour.
- Wear loose, comfortable clothes that will not pull or kink the catheter tube.
- Check your dressing often to make sure the tube is secure.
- Do not let the drainage bag hang freely, or it will pull on the catheter. Keep it secured to your leg or hold it temporarily.
- Empty the drainage bag often to keep the weight of the bag from pulling on the catheter.
 - Empty the bag when it is 1/2 to 2/3 full.
 - Always empty the bag before you go to bed.
 - Wash your hands before and after emptying the bag
- If you were asked to stop any medicines before the surgery, ask your healthcare provider when you may start taking them again. This is especially important in the case of blood thinners (anticoagulants or antiplatelet medicines).

When to Call

Call us **right away** if:

- You have severe bleeding or there is new blood in your drainage bag.
- You have a fever higher than 101°F (38.3°C) or chills.
- You are vomiting.
- Your nephrostomy tube is leaking.
- Your tube comes out or moves. Do not wait until the following day.
- Your urine output stops or is much less than it has been. If this happens, flush once and call Interventional Radiology.
- Your urine output becomes bloody. If this happens, flush once and call Interventional Radiology (see phone numbers below).

Call 911 and go to the nearest emergency room if:

- You have chest pain
- You have trouble breathing
- You have slurred speech
- You have balance problems or trouble using your arms or legs

Who to Call

University of Washington Medical Center and Northwest Hospital

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department:

- Montlake: 206.598.6209, option 2
- Northwest: 206.598.6209, option 3

Harborview Medical Center

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department at 206.744.2857.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC – Montlake:
206.598.6209, option 2

UWMC – Northwest:
206.598.6209, option 3

Harborview Medical Center:
206.744.2857

After hours and on weekends and holidays:
Call 206.598.6190 and ask to page the Interventional Radiology resident on call.