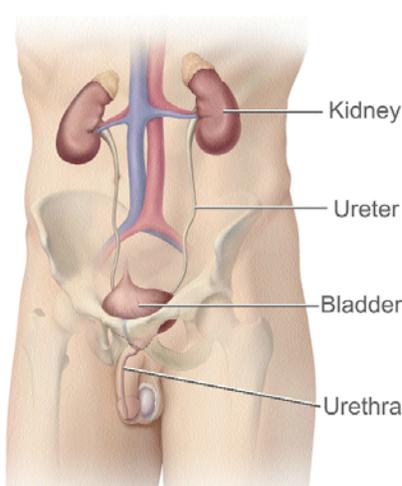


NIH Clinical Center Patient Education Materials

Caring for Your Percutaneous Nephrostomy Tube

You are scheduled for a nephrostomy tube placement. When urine drainage is blocked, the body's waste cannot be eliminated. To prevent life-threatening complications, another pathway must be made. A percutaneous nephrostomy tube is one way to reestablish a pathway to drain and eliminate waste from the body. This long, thin, plastic tube is inserted through the skin into the kidney and attached to a bag.



Source: NIH Medical Arts

Before the procedure

- You should not drink or eat eight hours before the procedure. Some medications may be taken on the day of the procedure with sips of water. Ask your doctor which medications you should or should not take.
- If you are allergic to intravenous contrast, you may need to take some medications before your procedure to prevent a reaction and keep you safe. Please alert your doctor when making an appointment.
- Once you arrive at the Interventional Radiology Department, your health care provider will explain the procedure's risks and alternative treatments and will answer your questions. Your health care provider will ask you to sign an informed consent giving your team

permission to do the procedure.

- A nurse will put an intravenous (I.V.) line in your arm. You will receive fluids and medication through this line.
- You will be awake, relaxed, and maybe a little sleepy during the procedure. At times, the radiologist will ask you to hold your breath so that pictures taken during the procedure will turn out well.

During the procedure

- A medication will be injected into your skin to numb the area where the tube will be placed.
- A small cut will be made in your skin, and a needle will be inserted into the kidney. A special dye, called "contrast," will be injected through this needle to make the kidney visible on pictures. An X-ray will be taken to confirm the position of this needle.
- A wire will be placed through this needle into the kidney, and then the needle will be removed. At this point, the nephrostomy tube will be placed over the wire and into the kidney. This part of the procedure may be uncomfortable, and the radiologist may give you more pain medication through your I.V. line.
- When the nephrostomy tube is properly placed, the wire will be removed. Contrast dye will be injected again, and another X-ray will be taken to make sure that the tube is in the right place.
- Some nephrostomy tubes can be secured firmly by forming a loop inside the kidney. The tube may be attached to your skin by stitches, and tape can be used for more support.

After the Procedure

You will return to your room on a stretcher or in a wheelchair and will need to rest in bed for two to four hours after the procedure. There may be some pain or discomfort at the insertion site, but this pain

should not be severe. Ask your nurse if you think that you need medicines to help with the pain. It is normal in the first two to three days for the drainage from the nephrostomy tube to be pink or blood-tinged. Let your nurse know right away if the drainage becomes bright red. Your nurse will check the site for bleeding, swelling, and pain frequently while you are resting.

If you received sedation or anesthesia, you should not drive, operate machinery, drink alcohol, or make important or legal decisions for 24 hours. Discuss with your physician when you should resume taking your normal medications, especially blood thinners such as Aleve, aspirin, Lovenox, Coumadin, Effient, etc.

Things to remember about your nephrostomy drainage system

- Keep the drainage bag below the level of the kidneys to prevent urine from backing up into the kidneys.
- If the tubes are disconnected, the connector should be cleaned with an alcohol swab before reconnecting.
- Bathing or swimming is not recommended as long as the tube is in place.
 - You must change your dressing if it is wet or soiled.
 - You may shower 24 hours after the nephrostomy tube is placed.
- It is important to drink a lot of fluids. Ask your doctor how much you should drink to keep your kidneys working well.
- Gloves should always be worn when handling body fluids or secretions from another person, especially if you are receiving chemotherapy or radioisotopes

Call your doctor

- If you have a temperature above 101 degrees Fahrenheit or 38 degrees Celsius.
- If you have back pain or side pain.
- If you have redness, swelling, tenderness, or drainage around the tube.
- If you have leakage of urine around the tube site or from the nephrostomy tube.
- If you have low urine output or dark, foul-

smelling urine

- If your urine changes color to pink or red
- If you have no urine draining in the collection bag for two hours.
- If you are unable to flush the tube

If the tube falls out, call your clinic immediately; do not attempt to reinsert it yourself.

Caring for your nephrostomy tube

Changing the dressing

The location of the nephrostomy tube may make it difficult for you to reach it. You may need help from another person to do the dressing change and flushing. The dressing is first changed 24 hours after it is inserted. The site will be cleaned with Chlorhexidine swabs/wipes and allowed to dry completely (about three minutes). Once dry, a new clear dressing can be applied over the site.

Dressing changes should be performed twice weekly for the first two weeks after insertion. The securement device is normally changed weekly if not under the dressing or with each dressing change if under the dressing. After the first 2 weeks, if the nephrostomy site is dry, the dressing can be changed once a week.

Nephrostomy dressing change

Supplies

- Clear dressing
- Chlorhexidine swab/wipes
- Plastic bag to dispose of old dressing
- Gloves
- Skin barrier prep (optional)
- Sterile gauze
- Securement device or tape

Procedure

1. Thoroughly wash your hands with soap and water.
2. Gather the supplies.
3. Put on the gloves.
4. Remove the old dressing carefully.
5. Dispose of dressing and gloves in the plastic bag.
6. Wash your hands again

7. Put on clean gloves.
8. Clean the tube insertion site and the area under the dressing using a Chlorhexidine swab/wipe for 30 seconds. Scrub back and forth, and up and down.
9. Allow skin to dry for 3 minutes. It is very important that your skin dries completely. Applying the dressing while the skin is still wet with Chlorhexidine can cause burns to the skin.
10. Apply skin barrier prep (optional) on skin around the tube and under the dressing and allow to dry
11. Secure the tube with a tube securement device if using under the dressing.
12. Cover the tube site with a clear dressing.
13. Secure the tube with a tube securement device if using outside the dressing.
14. Remove your gloves and dispose of them.
15. Wash your hands.

When your nephrostomy tube is changed, the frequency of caring for it will depend on how the insertion site looks. If the site is dry and intact without bleeding, continue your usual site care weekly. If the site is moist and/or soiled, change the dressing..

Flushing the nephrostomy tube

When a nephrostomy tube is first inserted, you may have blood in your urine. If your doctor recommends that you flush your nephrostomy tube, follow the instructions given to you. Flushing is usually done every day, but you may need to do it more often the first few days after your nephrostomy tube is inserted. When your urine drains easily and no longer contains blood or blood clots, talk with your doctor or nurse about how often your tube will need to be flushed.

Flush the nephrostomy tube through the rubber stopper on the three-way stopcock attached to your nephrostomy drainage system. (A three-way stopcock is a plastic valve with three openings and a sidearm that controls the direction of fluid through the device.) Your doctor or nurse will connect the nephrostomy tube to the stopcock. The drainage bag will be attached to the stopcock.

The third side (irrigation port) will have a cap. This irrigation port will be used for flushing. Check the direction of fluid flow for the device that you use. The flushing port should be in the “Off” position when not in use. If you notice that there is no urine coming out of the tube, check the sidearm position and tube for problems.

Flushing procedure

Supplies

- 5- to 10-mL preservative free normal saline-filled syringe (the only fluid used to flush your nephrostomy tube)
- Alcohol swab

Procedure

1. Thoroughly wash your hands with soap and water.
2. Gather the supplies.
3. Thoroughly wash your hands with soap and water.
4. Put on the gloves.
5. Turn the stopcock off to the drainage bag.
6. Remove the cap
7. Swab the injection port with alcohol for 15 seconds.
8. Screw on the syringe into the injection port.
9. Slowly push in the normal saline. **DO NOT PULL BACK.** If you cannot push in the saline, check the position of the stopcock sidearm and the tube for problems (examples: kinks or clots). If you still cannot easily flush in the saline, call your doctor. Do not flush with more than 5 ml of saline unless directed by your doctor. Turn the sidearm towards the drainage position.
10. Remove the syringe by unscrewing it from the side port.
11. Cover the open port with a clean cap. Check for urine in the tube or drainage bag

Changing tube

All nephrostomy tubes eventually become clogged and need to be changed. You may need to come to the Interventional Radiology Department every two to three months to have your tube changed.

The procedure for changing a nephrostomy tube is usually shorter compared to when it was inserted

the first time. Many nephrostomy tube changes are done on an outpatient basis and do not require you to stay in the hospital overnight.

Drainage bags

Changing drainage bags

Drainage bags should be changed at least every seven days. If the drainage bag becomes dirty, foul-smelling, or is punctured, it should be changed sooner. Here is how you change bags.

Supplies

- Gloves for your caregiver
- Drainage bag with securing straps
- 2 alcohol pads

Procedure

1. Wash your hands thoroughly with soap and water.
2. Gather the supplies.
3. Wash your hands thoroughly with soap and water. Your caregiver should wash his/her hands and put on the gloves.
4. Use alcohol to swab the connection of the drainage tubing attached to the nephrostomy tube for 15 seconds.
5. Disconnect the drainage bag from the tube.
6. Put the used bag aside.
7. With a new alcohol pad, swab the open end of the nephrostomy tube for 15 seconds.
8. Connect a new bag.
9. Secure the drainage bag to calf, thigh, or waist as desired with safety pins or straps.
10. Remove gloves and dispose of them.
11. Wash your hands, and have your caregiver do the same

This information is prepared specifically for persons taking part in clinical research at the National Institutes of Health Clinical Center and may not apply to patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team.

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Questions about the NIH Clinical Center

<http://www.cc.nih.gov/comments.shtml>

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