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This guide is available free in electronic form from United Ostomy Associations of America (UOAA).
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Nephrostomy Tube Facts

This Nephrostomy Facts Booklet was developed to provide a quick review on what a nephrostomy tube is and how to care for it.

Review of the normal urinary system

The normal urinary system consists of: A left and right kidney, ureters, bladder, and urethra. The ureters connect the kidneys to the bladder, allowing urine to flow from the kidneys to the bladder. The urethra delivers the urine from the bladder to the outside of the body. The kidneys’ function is to process and excrete urine, and maintain the fluid, electrolyte, and acid/base balances of the body.
When a blockage prevents the flow of urine through the urinary system, a nephrostomy tube may be inserted to relieve the blockage. A blockage may be caused by a kidney stone, tumor, scar tissue, or another cause. This procedure is done to stop pain, infection and kidney damage. Alternatively, sometimes a nephrostomy tube will be inserted due to leakage of urine inside the body, or during healing after urinary surgery.

A nephrostomy tube is a thin catheter placed into your kidney through a small incision in your back to drain urine. This is usually inserted under local anesthesia by a urologist or interventional radiologist. Your nephrostomy tube/s will be connected to a drainage system that collects the urine. There are different types of collection systems and you may use more than one depending on your activity level.
Changing Your Dressing

The bandage over where the tube enters your body should be changed at least once a week or sooner if it gets wet or is lifting. The drainage bag should be cleaned or changed once a week. Ideally, you will have at least 2 bags.

- To clean a drainage bag you can use 1-part white vinegar and 3-parts warm water and let it soak for 20 minutes. Rinse bag out with warm water and let dry.

You will most likely need someone to change the dressing for you because of where it is located on your back. Visiting nurses can be arranged by your physician to assist with dressing changes if you do not have someone you can rely on.

During the dressing change, the skin around the tube should be examined for any redness, swelling or pus. If this is present, it should be reported to your doctor.

On the day of a dressing change, you can shower without a dressing on. You should not directly spray water on the site or vigorously scrub the area or do anything that would risk pulling on the tube. It is okay for soap and water to run over the insertion area. Pat the area dry and put on a new dressing. If you are not changing your dressing or choose to keep it on during showering, the dressing should remain dry. You can use food cover plastic wrap over the dressing and tape it to your skin. There are waterproof cover dressings that you can purchase. Use of a hand-held shower can be helpful so the spray can be directed away from the dressing. If the dressing does get wet, it will need to be changed. Wet dressings can cause skin issues.

Do not swim or take baths while you have a nephrostomy tube unless you have taken appropriate measures to keep the insertion site dry or have discussed it with your provider.
How to Change the Dressing

Change the bandage after taking a shower. Wash your hands before removing the dressing.

1. Carefully remove the tape holding the bandage
2. Clean around the tube with a clean washcloth, use mild soap and water
3. Rinse well
4. Pat dry
5. Apply new, clean dressing, secure with tape or other adhesive
6. Take care that the tube does not kink

Dressings: There are many dressing and tube anchor options available. These are just an example. It is best to discuss options with your urology/radiology team and or visiting nurses to see what will work best for you.
Flushing Your Tubes

Not all patients will need to flush their tubes. If you do need to flush your tube, follow your physician’s instructions. Flush your tube as instructed.

- Gather all supplies (10 ml saline syringe, stop cock cap, alcohol wipes, gloves, clean towel) and place on table
- Wash hands with soap and water
- Dry hands thoroughly
- Remove syringe from wrapper

If your nephrostomy tube has a 3-way stopcock valve (the longest port is labeled off):

- Turn the switch off which points to the drainage bag
- Remove flush port cap
- Remove cap from prefilled syringe
- Push on the plunger to remove any air bubbles
- Clean the flush port off with alcohol wipe(s)
- Attach the prefilled syringe to the open port
- Flush gently with 5 ml normal saline
- Stop if you feel any pressure, do not pull back on plunger
- Keep syringe attached to the catheter tubing
- Clean drainage bag tubing end with alcohol for at least 10 seconds
- Remove syringe from tubing connect catheter tubing to drainage bag tubing end
- Discard supplies
- Remove gloves
- Wash hands
If your nephrostomy tube doesn’t have a stopcock valve:

- Place clean towel under catheter connection disconnect tubing
- Place tubing end connected to drainage bag on clean towel
- Clean tubing end (closest to you) with alcohol for at least 10 seconds
- Remove cap from prefilled syringe
- Push on the plunger to remove any air bubbles
- Attach prefilled syringe to tubing end
- Gently flush tube with 5 ml of saline
- Stop if you feel any pressure, do not pull back on plunger
- Keep syringe attached to the catheter tubing
- Clean drainage bag tubing end with alcohol for at least 10 seconds
- Remove syringe from tubing connect catheter tubing to drainage bag tubing end
- Discard supplies
- Remove gloves
- Wash hands
Complications and Troubleshooting

Minor complications

Local pain, redness
- May be caused by adhesive allergies, localized skin infection, sensitivity to concentrated urine.
- Discuss with your physician, visiting nurse, if you have one, or a wound ostomy continence nurse for treatment suggestions.

Leakage of urine
- Check tube for kinking
- Check to make sure all valves are open to allow urine flow
- Check dressing and adhesion of dressing - change dressing if needed
- Check drainage bag, change if necessary

Decreased urine output
- Dehydration – Make sure you are taking in 2 L of fluid a day. This will help prevent dehydration and will also help to keep the tube free from obstructions
- Check tubing for kinks
- Check urine to see if there are particles obstructing the tube. Follow interventions listed under tube blockage /obstruction
Infection

Signs and Symptoms

• Fever over 101°F (38.3°C) with or without chills
• Pain located in the back or side
• Urine color is dark, pink/red, cloudy
• Urine has a foul odor
• Redness or drainage around the insertion site

If you have any signs of infection

• Reach out to your provider or present to the emergency department for evaluation.

Tube has dislodged or has pulled out completely

Signs and symptoms

• Back or flank pain
• Decreased urine output
• Leakage or bleeding around the tube insertion site

If your tube has dislodged or has pulled out completely

• Contact your physician or interventional radiologist immediately
Tube blockage/obstruction

Signs and symptoms

- Drainage has decreased or stopped, greater than 2 hours
- Leakage of urine around insertion site

If you think your tube is blocked or obstructed

- Check to make sure the tube is not kinked - use a mirror to assess your back
- Check to make sure the valve is open so urine can flow into the bag
- Check to make sure the collection bag is not damaged. If it is, change it.
- Attempt to flush the tube with no more than 10 cc of sterile water or sterile normal saline. Do not withdraw fluid after irrigation. If fluid does not go in easily you can try to gently pull back on the syringe to dislodge any obstructing particles. Reattempt flushing using gentle pressure. If you have any pain while attempting this intervention, stop. (See tube flushing)

If none of these interventions produce normal urine flow, contact your physician or interventional radiologist.
Resources and References

Website resource for nephrostomy patients:

Nephrostomy Living - A Project of Quality Life Solutions, Inc.

www.Quality-Life-Solutions.org

Facebook: Nephrostomy support groups

- Nephrostomy Living USA
- Nephrostomy Support 2.0

References:

https://www.mskcc.org/cancer-care/patient-education/about-your-nephrostomy-catheter


Cleveland Clinic Urine Drainage Bag and Leg Bag Care

https://my.clevelandclinic.org/health/articles/14832-urine-drainage-bag-and-leg-bag-care