This booklet describes how to care for your kidney tube (also called PNT). A PNT is a flexible tube that is placed into the kidney. It may be used:

- To drain fluid that is trapped in the kidney because of a blocked ureter.
- To remove kidney stones.
- For special treatments where doctors need to get into the kidney.

The kidney removes waste products from the blood. When too much waste builds up, it makes you sick.

Waste leaves the kidneys in the form of urine. The urine drains through the ureters to the bladder. Each day, the kidneys filter about 50 gallons of blood and drain about 1½ liters of urine.

Your tube will stay in place until your doctor decides that it should be removed. For more information, talk to your doctor (urologist or radiologist).

We will review this booklet with you before you leave the hospital. If you have any questions, be sure to ask.
About your PNT system

A PNT system has several pieces: The kidney tube, a lock, sometimes a stopcock and a connector.

You will also have a drainage bag with tubing.

The tube enters your kidney through a puncture site in your back or belly area. The tube may be stitched to the skin to help keep it in place.

**Do not unlock the tube.** The lock helps to hold the tube in place and keeps it from falling out of your body.

**Do not clamp your PNT unless a doctor or nurse tells you to.** If your PNT is clamped, you may skip pages 5 to 7.

The tube might connect with a three-way stopcock. The stopcock has an arm labeled “off.” We will show you how to turn the arm to control the flow of fluid. If you have a stopcock, we may remove it later.

- **If you have a two-way stopcock, do not turn it.**
- **Do not disconnect the system between your body and the stopcock,** unless we tell you to. If you have leaking or another problem, call your care team.

The connector is a piece of clear tubing that connects your drainage bag to the rest of the system.

The drainage bag holds the urine that drains from the kidney. If you wish, you may use a large drainage bag at night and a smaller leg bag during the day.

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Diagram: PNT system components

- **Lock**
- **Three-way stopcock**
- **Flush port**
- **To body**
- **To drainage bag**

Drainage System
After your tube is placed

Self-Care

You may have some bruising or tenderness at the tube site for a few weeks. Use a warm heating pad or hot-pack to help relieve pain.

Your urine may be red with blood for the first few days. This is normal.

To prevent sludge and stones from forming in the tube:

- Drink 8 to 10 glasses of fluid each day.
- Avoid tea because it can cause stones.
- Your care team may ask you to flush your tube. If so, we will show you how to do this.

Activity and diet

While you have the tube:

- Do not take a bath or go swimming. You may shower, but cover the tube with plastic. Ask your doctor when it will be safe to take a shower without a plastic cover.
- Keep drinking at least 8 glasses of fluid daily (besides the fluids you drink with meals), unless your doctor tells you not to.
- Check your temperature every day under the tongue. Write it down on your drainage record (page 9). If you have a fever over 101°F (38.3°C), call your doctor.

Tube and bag tips

- Clean the skin around your tube site with every bandage change.
- Be sure the tube is taped securely to the skin at all times.
- Keep the drainage bag below your kidney. This stops urine from flowing back into the kidney and reduces the chance of infection.
- Check your tubing often for kinks that may block the flow of urine. You may tape the tubing to your thigh to prevent kinks.
- During the day, you may wear a small leg bag under your pants or skirt. You will empty this bag two to three times a day. You may use a large bag at night, so you don’t have to get up to empty it.

Preventing infections

Infection is the major risk for people who have a PNT. Proper care of your skin and equipment is vital. Remember: Each time you connect or disconnect the bag, there is a chance that germs will get into your body.

Always wash your hands before touching the tube or supplies. Use soap and water.

Use special care in areas where germs may enter the tube and drainage system. These include:

- The skin around the tube site
- Points where the tubing connects
- The spout used to empty the bag.
Caring for the tube site

If you have a StayFix bandage to keep the tube in place, we will show you how to use it. Change it once a week or each time it gets wet.

Change your other bandages and clean the skin around the tube every other day (or when your doctor tells you). If you have drainage or the bandages get wet, you must change them again.

To change your bandages, follow these steps.

**Step 1: Prepare.**

1. Clean your work area with a household cleaner and water (or cleaning alcohol) and a paper towel.
2. Wash your hands with soap and water. Caregivers should put on clean gloves.
3. Place these items on your clean work area:
   • Bag to hold the old bandages
   • Germ-killing liquid soap (or other product suggested by your nurse or pharmacist)
   • Cotton swab, gauze pad or clean washcloth
   • Sterile 2x2 or 4x4 bandages
   • 1-inch wide paper tape or Medipore tape
   • Paper towel.

**Step 2: Remove the bandages and check the skin around the tube.**

1. Remove the old bandages and put them in the bag for the trash. Be careful not to pull on your tubing or stitches, if you have them. Do not use scissors—they could cut the tube.
2. Look at the skin around the tube. If you have stitches, check these too. Call your clinic or home care nurse if you see broken stitches or more redness, swelling or drainage around the tube site.

**Step 3: Clean the skin around the tube.**

1. Wash your hands with soap and water. Caregivers should put on clean gloves.
2. Put the liquid soap on your cotton swab, gauze pad or washcloth.
3. Clean the skin around the tube site. Start at the tube and move outward about 1 to 2 inches, moving in circles.
4. Rinse the skin with water. Pat or air dry.

**Step 4: Replace the bandages.**

When you open the package, you will find two bandages. (You may also use gauze bandages with slits cut into them.)

1. Wash your hands with soap and water. Caregivers should put on clean gloves.
2. Fold one bandage in half and place it below the tube site.
3. Fold the other bandage in half and place it over the tube site.
4. Tape the bandages in place.

**Step 5: Tape the tube to the skin.**

Be sure that the tube is securely taped to the skin.

1. Leave a small amount of slack in the tubing. This reduces stress (pulling) on the stitches. It also helps prevent the tube from being pulled out.
2. Tape the tube to the skin about 3 to 4 inches below the site where the tube enters the body.
Step 6: Clean up.

Throw away the bag holding your used supplies. Clean your work area with a household cleaner and water (or alcohol) and a paper towel. Wash your hands with soap and water.

How to empty your bag

Empty the urine from your bag regularly. You may want to empty it when the bag becomes half full.

1. Wash your hands with soap and water. Caregivers should put on clean gloves.

2. Open the outlet spout.

3. If you are keeping track of your urine, pour it into a measuring cup. Write the amount on your drainage record (page 9).

4. Pour the urine into the toilet.

5. Close the spout.

6. Wash your hands with soap and water.

If you have a leg bag

The steps below are for the Conveen leg bag. If you use another brand, follow the directions on the package insert.

1. Clean your work area with a household cleaner and water (or alcohol) and a paper towel. Wash your hands for 15 seconds. Use soap and water.

2. Place these items on your clean work area:
   - Leg bag kit (opened)
   - Clean scissors
   - Alcohol pads

3. Button the leg straps through the top and bottom of the bag. Place the wide strap at the top of the bag. You may trim the straps to fit your lower leg. The bag will hang below your knee.

4. Close the drainage spout at the bottom of the bag.

5. Decide how long the bag’s tubing needs to be. It should reach from the connector to below the knee. Allow a little slack in the tubing, so you can walk and sit freely. If you decide to shorten the tubing:
   - Use an alcohol pad to clean your scissors well.
   - Use another alcohol pad to wipe the tubing.
   - Cut the tubing to the right size. Do not allow the tip of the tubing to touch anything.

6. Insert the white spout into the bag’s tubing.
   - Use an alcohol pad to wipe the spout.
   - Keep the gray cover on the large end.
   - Push the small end into the tubing. Once it’s in, it can’t be removed.

7. Strap the bag to your leg. Most people wear it below the knee.

8. Wash your hands with soap and water.
How to change bags

If you wear a leg bag, you may wish to use a large drainage bag at night.

To change bags:

1. If you have a stopcock, turn the “off” arm so it points toward the bag.

2. Empty the urine from your current bag. Note the amount on your drainage record.

3. Wash your hands with soap and water.

4. Using an alcohol pad, carefully wipe the point where the bag’s tubing meets the connector. Do this three times.

5. Gently twist apart the tubes. Do not use your fingernails. Nails often carry germs.

6. Connect the new bag to the PNT system. Twist the spout into the clear end of the connector. Do not touch the ends. The two parts should fit tightly together.

7. Turn the “off” arm of the stopcock so it points to the flush port.

If you will not change bags, you may use the same bag for one month. You don’t need to clean it.

Cleaning your bags and tubing

Before you can reuse a bag, you must wash it with soap and rinse it with vinegar. This will kill germs and prevent infection.

Follow these steps each time you change bags. This way, you can use the same bag for one week.

1. Clean your work area with a household cleaner and water (or alcohol) and a paper towel.

2. Wash your hands with soap and water. Caregivers should put on clean gloves.

3. Place these items on your clean work area:
   - Small funnel
   - Liquid dish soap
   - White vinegar solution (¼ cup vinegar + ¾ cup water)
   - Sterile 4×4 gauze or a clean washcloth
   - Clean towel or storage container

4. Empty the urine from the bag.

5. Fill the bag with cool tap water. A small funnel will help direct the stream of water.

6. Drain and fill the bag again, adding a couple drops of dish soap. Gently squeeze the bag several times to clean the inside. Drain the water into the toilet. Rinse the bag well with tap water.

7. Fill the bag with the vinegar solution. Gently squeeze the bag several times. Let it sit for 10 minutes.

8. After 10 minutes, empty the bag in the toilet.

What if I don’t have a connector?

If there is no connector, your bag will attach directly to the PNT system. You may use the same bag for one month and you do not need to clean it. After one month, simply replace the bag. Your nurse will show you how to do this.
9. Hang to air-dry with both ends pointing down. Tips:
   • Pull the sides of the bag apart to speed drying.
   • Do not hang the bag or tubing over a radiator or other source of heat. This may lead to germs and infection.
   • You may wish to use a wire hanger to hang the bag.
   • You may cover the end of the tubing with clean paper towel. Use a rubber band to hold the paper towel in place.

10. Wash your hand with soap and water.

11. After the bag and tubing have dried, store them in a clean towel or covered container. If you used paper towel, you may remove it.

12. When it comes time to reconnect the bag to the PNT system, be sure to clean the tip of the tubing with an alcohol pad.

Throw out used bags after one week.

Replacing your connector

If you have a connector, your nurse may ask you to replace it from time to time. Simply unscrew the old connector from the PNT system, then screw on the new one.

You may order a new connector with your other supplies.
When to call for help

Call for help if your tube slides out:

First cover the opening with gauze and tape.

**Office hours:** Call urology or radiology. Tell them your tube came out. They will tell you what to do.

**After hours:** Go to the emergency room. Bring the tube with you.

Call for help right away if you have any of these problems (call your home care nurse, urology or radiology):

- No urine drains from the tube. (Note: If you have a stopcock, check that it is in the open position. The “off” arm should point toward the flush port, as on page 2.)
- You have urine leaking from around the tube.
- Your urine is bloody or cloudy. (It is normal to have blood in the urine for the first few days.)
- The skin around your tube has more redness, swelling, pain or drainage.
- The tube is blocked when you try to flush it.
- You have pain in your back over your kidney.
- You have chills or a temperature over 101°F (38.3°C) when taken by mouth.
- You have nausea (feel sick to your stomach).

Remember: Never clamp your tube unless a doctor or nurse tells you to.

Calling your radiology clinic

**Fairview Maple Grove Medical Center:**
763-898-1225 (after hours, call 612-273-3000)

**Fairview Northland Medical Center:** 763-389-6430

**Fairview Ridges Hospital:** 952-892-2545

**Fairview Southdale Hospital:** 952-924-5170
(ask for the nurse or doctor on call)

**University of Minnesota Medical Center**

*West Bank:* 612-273-4250

*East Bank:* 612-273-4220 (after hours, call 612-273-3000 and ask for the radiologist on call)

Supplies

You may order your medical supplies from:

________________________________________

________________________________________

________________________________________

________________________________________
**Your drainage record**

Write down the date, time and amount of urine. Also note any change in color or smell. If you flush your tube, you should also note the date, time and amount of saline you use. If you have more than one drainage tube, be sure to record the drainage for each tube.

Please also check your temperature by mouth each day. Note this in the chart. If you have a fever over 101°F (38.3°C), call your doctor.

Bring your drainage record to each doctor’s visit. This will help the doctor decide when to remove the tube.

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<th>Total daily urine</th>
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