

# Discharge Instructions: Flushing Your Total Parenteral Nutrition (TPN) Catheter



You are going home on total parenteral nutrition (TPN). This is a way for you to get nutrition through a tube (catheter) in your vein. The TPN solution has the vitamins, minerals, and other nutritional elements that you normally get by eating food. Your healthcare provider will decide if you can also eat while you are on TPN. You will work closely with a nurse until you feel comfortable taking care of your catheter and giving yourself TPN.

You will need to keep your catheter from clogging. This is done by flushing the catheter with saline solution. You may also need to flush your catheter with a medicine called heparin after the saline flush. This depends on the type of catheter you have.

The information below helps you learn how to flush your TPN catheter between uses. It has reminders and tips about what you'll need to do each day. Ask your healthcare provider for more information about caring for your catheter, using sterile technique, and adding medicines to your solution. There may be other information available to guide you through the process. Always check with your healthcare provider if you have any questions or concerns.

## Home care

Find out if your catheter is open-ended or closed-ended.

- Open-ended catheters must be flushed with saline before starting TPN. They must be flushed with heparin *and* saline after stopping TPN.
- Closed-ended catheters must be flushed with saline before and after TPN.

## Step 1. Wash your hands

Wash your hands before touching any of your supplies:

- Turn on the water.
- Wet your hands and wrists.
- Use liquid soap from a pump dispenser. Work up a lather.
- Scrub your hands thoroughly for at least 20 seconds.
- Rinse your hands, keeping your fingers pointed downward toward the drain.
- Dry your hands with a paper towel. Cloth towels have germs. Use the paper towel to turn off the faucet.
- Remember, once you have washed your hands, don't touch anything but your supplies. You must wash your hands again if you touch anything else, such as furniture or your clothes.
- If you prefer, wash your hands using an alcohol-based hand sanitizer.

## Step 2. Gather your supplies

Your healthcare team will give you a list of specific items to use. Or you may be given a kit with all of the supplies. Your supplies may include:

- For a saline flush:
  - Prefilled saline syringe

- 25-gauge needle and 10 mL syringe (only if prefilled syringe is not provided)
  - 10 mL bottle of saline (only if prefilled syringe is not provided)
  - Disinfecting supplies (such as chlorhexidine wipes or alcohol pads)
- For a heparin flush (if needed):
  - Prefilled heparin syringe (heparin in the amount prescribed)
  - 25-gauge needle and 10 mL syringe (only if prefilled syringe is not provided)
  - Disinfecting supplies (such as chlorhexidine wipes or alcohol pads)
- Trash can
- Special container to throw out the used syringe (sharps container). You can buy a sharps container at a pharmacy or medical supply store. You can also use an empty laundry detergent bottle, or any other puncture-proof container and lid.

### Step 3. Clean your work area

- Keep pets and children out of your work area.
- Don't work in the bathroom if it can't be kept very clean.
- Clean washable surfaces with soap and water or disinfectant spray. Dry with a paper towel.
- Wipe surfaces that are not washable (such as fabric or wood) so they have no dust.
- Spread a clean cloth or paper towel over your work surface.
- Place your supplies on the cleaned, dried, and covered work surface.
- Wash your hands again, using step 1 above.
- If you ever need to cough or sneeze, turn away from your work surface and wash your hands again.

### Step 4. Prepare the syringe, if needed

- Remove the protective cap from the saline bottle (vial), if needed. Wipe the rubber top of the bottle (vial) with an alcohol pad.
- Attach the needle to the syringe if it is not already attached. Be careful not to touch the opening at the bottom of the needle (hub) or tip of the syringe.
- Remove the needle cap or needle guard and pull back on the end of the syringe (plunger).
- Fill the syringe with 10 mL of air for the saline flush.
  - If you are also using heparin, get a second syringe.
  - Fill the second syringe with air equal to the amount of heparin prescribed for your flush.
- Insert the needle into the rubber top of the saline bottle. Push down on the plunger to push air into the bottle.
- With the needle still in the bottle, turn the bottle upside down so that the bottle is on top and the syringe is on the bottom.
- Make sure that the tip of the needle is below the level of the liquid in the bottle. Pull back on the plunger. This will cause the saline to fill the syringe. Withdraw 10 mL of saline.

- Check the syringe for air bubbles. Hold the syringe straight up and tap the barrel of the syringe with your finger or knuckles. The bubbles should go to the top of the syringe.
- Push the plunger up to remove the air bubbles and any extra fluid. Pull back on the plunger once more to fill the syringe with the correct amount of saline. The black line of the rubber piece attached to the plunger should be on the line next to the number 10 (mL) for saline.
- Take the needle out of the bottle.
- If also using heparin, repeat the above process using the second syringe. Fill it with the prescribed amount of heparin. Be sure to check for air bubbles.
- Put the cap back on the needle if instructed to do so. Be careful. Don't stick yourself.
- Put the syringe down.

## Step 5. Flush the catheter

- Clean the injection cap on your catheter with disinfectant wipes or other supplies, as directed by your healthcare team. Using friction, scrub the top, the tip (including the threaded edges), and sides for 10 to 15 seconds. Then wait for the cap to dry completely (up to 30 seconds). Follow any specific instructions your healthcare team has given.
- After cleaning the injection cap, don't touch it. Instead, hold the end of the catheter securely. Make sure the cleaned injection cap doesn't touch anything. If it does, germs could easily enter your body and cause an infection.
- Attach the syringe to the injection port as shown to you by your healthcare team.
  - Unclamp the tubing above the injection cap, if needed, before trying to flush forward.
  - Push the plunger in slowly so that the saline goes into the catheter. The plunger should be easy to push.
  - Do not flush forward if you meet any resistance. Contact your healthcare provider right away.
  - Detach the syringe and reclamp the tubing when you are finished.
  - Repeat the above steps if you need to flush your catheter with heparin.

## Step 6. Discard your materials

- Don't recap the needle after you have used it.
- Throw the syringe and needle away in your sharps container. When the container is full, follow the instructions for disposing of the container.
- Put any other materials in the trash can.
- Clean your hands again.

## Follow-up care

- You will be followed closely by a home health nurse or TPN nurse.
- Your healthcare provider will tell you when to make follow-up appointments with your healthcare provider.

## When to call your healthcare provider

Call your healthcare provider right away if you have any of the following:

- A catheter that won't flush
- Excessive thirst
- Upset stomach (nausea) or vomiting
- Weakness, shakiness, or sweating
- Headache
- A very fast or abnormal heartbeat (heart palpitations)
- Fainting or feeling faint
- Sudden weight loss or gain (more than 2 pounds in 24 hours)
- Shaking chills
- Fever above 100.4°F ( 38.0°C) , or as advised by your healthcare provider
- Redness, bleeding, swelling, warmth, drainage, or pus at your insertion site
- Shortness of breath or any chest pain (call 911)

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