

# Discharge Instructions: Flushing Your Central Line



You are going home with a central line in place. This is also called a central venous access device (CVAD) or central venous catheter (CVC). A small, soft tube called a catheter has been put in a vein that leads to your heart. This line stays in place until you no longer need it, and then it's taken out. The line carries medicine, fluids, or nutrition into your body. It may also be used to draw blood. The central line must be flushed regularly. This will keep it clean and prevent blood clots from blocking the catheter. To flush it, you will use a syringe to inject solution into the injection cap of the catheter. This sheet explains how to do that.

## Prevent infection with good hand hygiene

A central line can let germs into your body. This can lead to serious and sometimes deadly infections. To prevent infection, it's very important that you, your caregivers, and others around you use good hand hygiene. This means washing your hands well with soap and water and cleaning them with alcohol-based hand gel as directed. Never touch the central line or bandage (dressing) without first using one of these methods.

To wash your hands with soap and water:

- Wet your hands with clean, running water. (Don't use hot water. It can cause skin irritation when you wash your hands often.)
- Apply enough soap to cover the entire surface of your hands, including your fingers.
- Rub your hands together briskly for at least 20 seconds. Make sure to rub the front and back of each hand up to the wrist, your fingers and fingernails, between the fingers, and each thumb.
- Rinse your hands with water.
- Dry your hands completely with a new, unused paper towel. Don't use a cloth towel or other reusable towel. These can harbor germs.
- Use the paper towel to turn off the faucet, then throw it away. If you're in a bathroom, also use a paper towel to open the door instead of touching the handle.

When you don't have access to soap and water: Use alcohol-based hand gel to clean your hands. The gel should have at least 60% alcohol. Allow alcohol gel to completely dry. Follow the instructions on the package. Your healthcare team can answer any questions you have about when to use hand gel, or when it's better to wash with soap and water.

## When to flush the central line

- Flush the central line at least once every 12 hours, or as instructed by your healthcare team.
- Flush the central line before and after infusing medicines through the line.
- Follow any special instructions your healthcare team gives you.

## Preventing infection while flushing the central line

To flush the central line, you need to touch the end of the catheter (the lumen) and inject solution into it. The central line provides a direct path into your bloodstream. This makes the risk of infection high. So you must be very careful to keep your work area and supplies clean. Following the steps below will help. You may also get specific instructions from your healthcare team.

## Supplies for flushing the central line

A general list of supplies is below. Your healthcare team will provide you with a list of specific items and brands to use. Or you may get a kit that has everything you need. Your supplies may include:

- Saline flush (a solution that cleans the central line) or heparin flush (a medicine that prevents blood clots). These often come in already filled (prefilled) syringes.
- Disinfectant supplies (such as chlorhexidine wipes) for cleaning the top of the catheter.
- Plastic bags for throwing away supplies after flushing.

## To flush the catheter

### Step 1. Wash your hands

Wash your hands well with soap and water. Use the method described above.

### Step 2. Prepare your work area

- Choose an area with a hard, flat surface where you can easily spread out the supplies, such as a desk or table. Don't use the bathroom. It has too many germs.
- Move pets and children out of the work area. Keep them out until the flushing process is done.
- Clean washable surfaces with soap and water. Dry with a clean, unused paper towel. Then throw the paper towel away.
- Spread clean, unused paper towels over your work surface. Use as many as you need to cover it.
- If you need to cough or sneeze, move away from your work surface first.

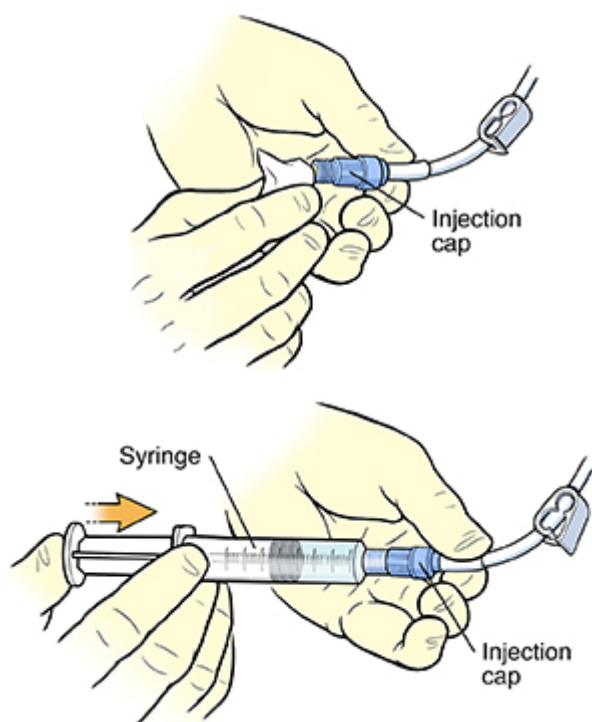
### Step 3. Lay out your supplies

- Clean your hands with soap and water or hand gel. Do this before you lay out your supplies on the work surface.
- After cleaning your hands, only touch your supplies. If you do touch anything else, such as furniture or your clothes, clean your hands again. This is very important for preventing infection.
- Place your supplies on the cleaned and dried work surface. Lay them out in the order you will be using them.
- You will likely use prefilled syringes that contain saline or heparin. If you are not using prefilled syringes, ask your healthcare team for instructions.
- Keep syringes capped for now. This keeps the tips germ-free (sterile).

### Step 4. Flush the catheter

- Clean the injection cap on your catheter using disinfectant wipes or other supplies, as directed by your healthcare team. Using friction, scrub the top, the tip (including the threaded edges), and the sides for 10 to 15 seconds. Then wait for the cap to dry completely (up to 30 seconds). Follow any specific instructions your provider has given.
- After cleaning the injection cap, don't touch it. Instead, hold the end of the catheter (the lumen) securely. Make sure the cleaned injection cap doesn't touch anything. If it does, germs could easily enter your body.
- Uncap the syringe and remove air bubbles as directed by your healthcare team. If you're flushing separately with saline and heparin, use the saline solution first.

- If the tubing above the injection cap is clamped, unclamp it now.
- Attach the syringe to the injection cap and twist to secure it.
- Pull back on the syringe plunger and watch for blood in the catheter. This is a sign that the catheter is working correctly. If you don't see blood moving through the catheter, stop and call your healthcare team right away. (Note: For each lumen, only check for blood during the first flush. If you're infusing medicine and then flushing the catheter again, you don't need to check for blood with the second flush.)
- Push the plunger slowly so the solution goes into the catheter. The plunger should be easy to push. If there is resistance, don't force it. Make sure the syringe is twisted into the injection cap and the tubing above the cap is unclamped. If you still feel resistance, stop and call your healthcare provider.
- Repeat the process for each lumen. Use a new syringe each time. You may have as many as 3 lumens.
- After injecting the solution, reclamp the tubing (if there is a clamp). Your healthcare team may give you specific instructions about this.
- If you're also flushing with heparin, repeat all of Step 4 using the heparin flush.



## Step 5. Dispose of used supplies

- After you use a syringe, place it in a special container (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.
- Discard any other used supplies in a plastic bag. Throw this in the trash.
- Wash your hands well with soap and water.

## Follow-up care

A home healthcare nurse or other nurse will follow your progress. Contact this person if you have any questions about the flushing process.

Follow up with your healthcare provider, or as advised.

## When to seek medical care

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

- Pain, burning, or swelling in your shoulder, chest, back, arm, or leg
- Fever of 100.4° F ( 38.0°C ) or higher
- Chills
- Signs of infection at the catheter site (pain, redness, drainage, burning, or stinging)
- Leaking at the catheter insertion site
- Coughing, wheezing, or shortness of breath
- A racing or irregular heartbeat
- Muscle stiffness or trouble moving
- Gurgling noises coming from the catheter
- Problems flushing the catheter
- A catheter that falls out, breaks, cracks, leaks, or has other damage

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