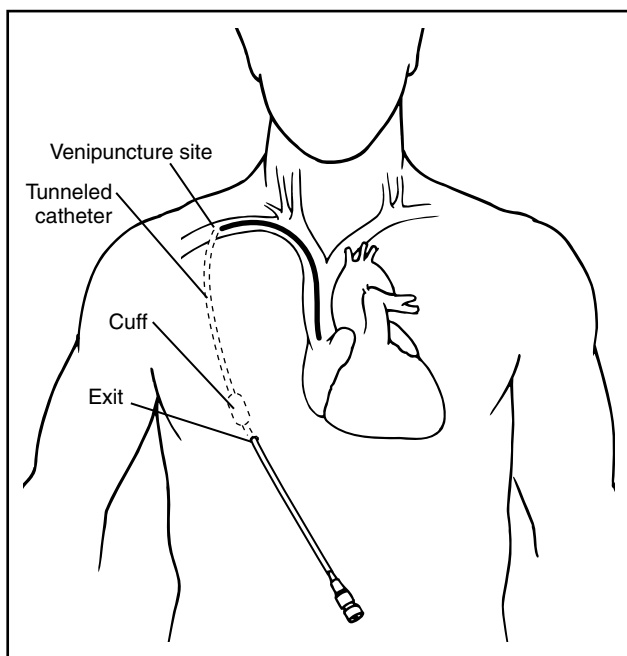


How to Care for Your Central Venous Catheter (Cuffed and Noncuffed)

The central venous catheter (central line) is a special intravenous catheter. It is a very flexible tube, generally inserted through the upper chest or neck and into a large vein just outside your heart. There are two general types of central lines. One is cuffed beneath your skin to help secure it; the other is noncuffed and has nothing under your skin to secure it, but may have stitches outside your body to help keep the line in. If your catheter has any external sutures, take care not to loosen or damage the stitches when changing the dressing. Also, the stitches should be examined regularly to ensure they are in place.



The type of catheter you have is a _____ (brand) and is _____ (cuffed or noncuffed). It has been placed so you can receive intravenous (IV) medications and fluids, and to draw blood for lab work. If properly cared for, this catheter should stay in place until your therapy is complete. The part of the catheter outside the dressing should always have a cap or needleless valve at the end. If a clamp is present, it should be closed when the catheter is not in use. Tape may be used outside the dressing to secure the catheter for your comfort and help pre-

vent it from being accidentally pulled out. Saline and heparin solutions are flushed through the catheter to prevent it from becoming blocked.

PREVENTING PROBLEMS

Because the catheter is in your bloodstream, you must take care that an infection does not enter your body through that opening. An occlusive dressing must always be kept over the insertion site until your doctor gives you other orders. Occlusive means the dressing sticks tightly to the skin, catheter, and insertion site, with no air pockets, moisture, or peeling edges.

This dressing should be changed

- 24 hours after catheter insertion,
- Whenever it becomes wet, soiled, or starts to peel,
- Any time you note the catheter beneath the dressing is pulling out of the vein
- Routinely, every _____ days.

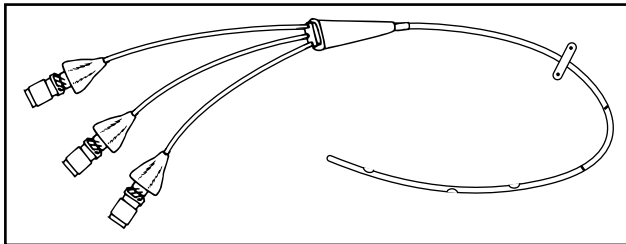
GUIDELINES

Use the following guidelines to help decrease your risk for infection and to keep the catheter in place and working properly.

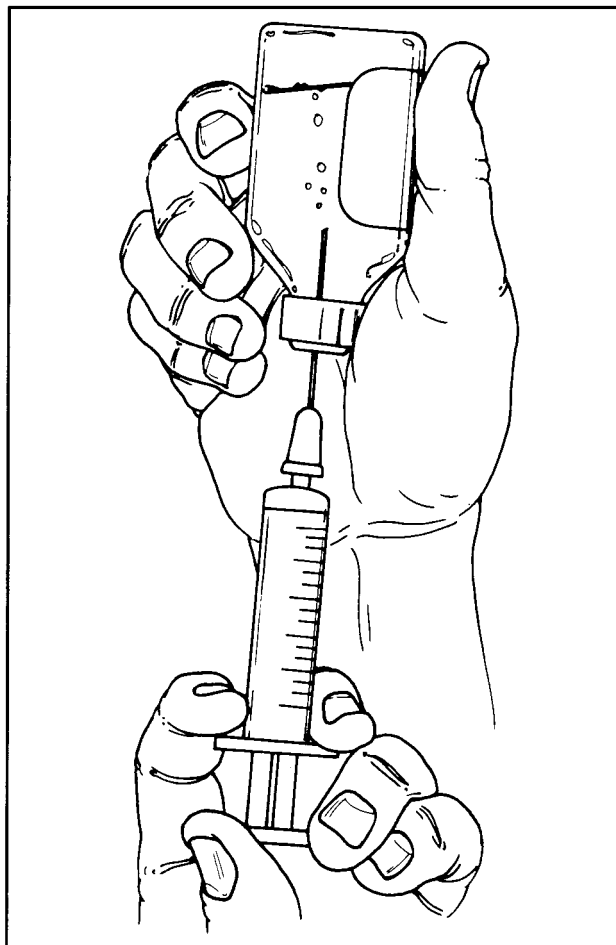
1. Always wash your hands with antibacterial soap and running water before touching any part of the catheter and prepare a clean work area for supplies before starting any procedure.
2. Keep the dressing dry. With clear occlusive dressings, you should be able to bathe as long as you don't allow water to soak or shower directly on the dressing. Coordinate bathing with your dressing change schedule, so if the dressing starts to loosen, you are prepared to replace it immediately.
3. Make sure the cap or needleless valve stay tightly connected to the catheter and the clamp is closed when the IV line is not in use.
4. Flushing your catheter will keep it from becoming blocked.
 - a. Flush with _____ milliliters (ml) of sodium chloride (saline solution) before administration of medications or fluids.
 - b. Flush again with the same amount of saline, after the medication or fluid is completed.

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- c. Finally flush with _____ ml of heparinized solution (heparin lock flush).
- d. You may remember this as SASH: Saline–Administration–Saline–Heparin.



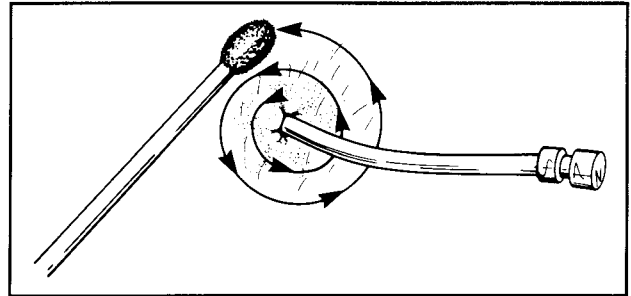
- e. If your catheter has more than one lumen or tube, all lumens must be flushed. Lumens not currently being used for medication or fluid administration must be flushed daily. Flush each one with _____ ml of saline and _____ ml of heparin lock flush each day.
5. Prepare the syringe for flushing as follows:
- a. Prepare a work surface by cleaning your selected area with soap/water or alcohol, allowing the area to air-dry.
 - b. Wash your hands.
 - c. Gather your equipment.
 - 0.9% sodium chloride (saline),
 - Heparinized solution (heparin lock flush) _____ units/ml,
 - Sterile 10-ml syringes with needle attached,
 - Alcohol prep pads.
 - d. Repeat steps e through j to prepare the saline and heparin syringes needed. Tag the heparin syringe with a label or piece of tape so you know the heparin is the last flush to be given.
 - e. Pop the cap off the solution bottle, open an alcohol wipe, and use it to clean the rubber top of the bottle.
 - f. Remove the cap from the needle and pull the plunger back to the _____ ml mark. *(Do not touch the needle or the cleaned bottle top with your fingers. If you accidentally touch the needle, get a fresh one and start again.)*
 - g. Insert the needle into the rubber top of the bottle.
 - h. Turn the bottle, needle, and syringe upside down. Inject the air and draw _____ ml of solution.
 - i. Remove the needle and syringe from the bottle. If air bubbles remain in the syringe, hold the syringe with the needle up. Draw the plunger back slightly and gently tap the barrel of the syringe until the bubbles rise to the top. Push the plunger slightly to get the air out.



- j. Carefully re-cap the needle and lay the syringe down on the cleaned surface.
6. Flush your central venous catheter.
- a. Make sure the clamp is open.
 - b. Clean the cap or needleless valve with alcohol, scrubbing briskly.
 - c. Allow it to air-dry.
 - d. While leaving the needle on the syringe, puncture the cap or remove the needle from the syringe for direct connection of the syringe to the needle.
 - e. Inject fluid by pushing the plunger, until the full amount is used. If resistance is met, *do not* force the fluid in. Stop and check for any kinks or pinched off areas of catheter. If none are found, call your home care nurse. *Never flush with a syringe smaller than 5 to 10 ml and do not allow a nurse or care giver to do this either. Small syringes create more pressure and could break or damage the catheter.*
 - f. After flushing, close the catheter clamp.
 - g. Remove the syringe.
 - h. Discard all used needles/syringes in a puncture-proof container with a lid. Dispose of full receptacle according to your town's requirements.

7. Change your dressing to prevent infection and keep the catheter in place.
 - a. Change your central venous catheter dressing every _____ days and whenever it is wet, loose, or soiled.
 - b. Have sterile supplies or dressing change kits available.
 - c. Store your supplies in a clean, dry place away from children and pets.
 - d. Find a clean, well-lit work area. A mirror may be useful if you change your own dressing.
8. How to change your dressing
 - a. Prepare a work surface, by cleaning the selected area with soap/water or alcohol and allowing the area to air-dry.
 - b. Wash your hands.
 - Remove all jewelry.
 - Wash with warm running water and antibacterial liquid soap.
 - Scrub fingers, nails, knuckles, back of hands, and 3 inches above the wrist.
 - Rinse well.
 - Dry your hands with paper towels, and turn the faucet off with those towels. Do not touch the faucet or sink after your hands are clean.
 - If caring for someone else's dressing, caregivers should put on clean latex gloves after washing and drying their hands.
 - c. Gather your supplies
 - Prescribed antiseptic cleanser (If alcohol and Betadine are both ordered, use the alcohol first, then the Betadine)
 - Sterile dry swabs (large) or prepackaged antiseptic swabs
 - Sterile dressing material (gauze or clear occlusive dressing)
 - or
 - Prepackaged "dressing change kit" with all the above included
 - Paper tape
 - Bag for waste
 - d. Set up your sterile supplies within easy reach.
 - e. Remove the old dressing by gently loosening edges. Then remove the dressing over the insertion site by holding the skin and catheter with one hand and stretching the clear dressing out along your skin. Do not pull up and out.
 - f. As the dressing is stretched and the adhesive is loosened, gently pull it toward the insertion site. Take care not to pull on the catheter. If sutures are in place, take care not to pull them loose.
 - g. Discard the old dressing in the waste bag.
 - h. Wash your hands again and change to clean gloves.

- i. *If using alcohol only:* Moisten a dry swab with the antiseptic cleanser or use a premoistened swab to cleanse the insertion site. Move the swab in a circular motion, working out away from the insertion site, about 3 to 6 inches. Include the catheter, as well as the skin and any sutures. Look for signs of infection: redness, swelling, or drainage. If any of these signs are present, finish the procedure and call your nurse.



- j. Discard the swab in the waste bag, without touching the dirty end with your hands. Repeat the cleansing with a new antiseptic swab two more times.
- k. Allow the cleaned skin to air-dry.
- l. Gently wipe the catheter with an alcohol wipe from the insertion site to the end cap. **DO NOT PULL THE CATHETER.**
- m. If using both alcohol and Betadine
 - (1) Cleanse the insertion site three times as described above with alcohol and allow the area to air-dry;
 - (2) Cleanse the insertion site three times with Betadine and allow the area to air dry. If too much Betadine is on your skin, causing it to run, blot it with a sterile gauze pad. Do not wipe the Betadine completely off.
- n. Your skin and catheter must be completely dry before replacing the dressing.
- o. If using a clear or transparent dressing
 - Remove the paper backing from the clear dressing and apply the sticky side to skin and catheter, so the insertion site is about center.
 - Place a piece of tape just outside where the catheter comes out of the dressing to anchor it to the skin.
 - If sutures are present, place a small gauze pad over them, under the dressing.
- p. If using gauze and tape
 - Place a gauze pad over the insertion site and cover the gauze pad completely with strips of tape.

- Make sure no gauze is exposed.
- Place a piece of tape over the catheter where it comes out of the dressing to anchor it to the skin.
- q. Label the dressing with the date it was changed.
- r. Dispose of used supplies.
- 9. How to change the catheter cap
 - a. The cap or needleless valve must be changed every 7 days to help prevent infection.
 - b. The best time to change the cap is when you change the dressing.
 - c. Wash your hands.
 - d. Gather your supplies
 - Sterile cap or valve,
 - Syringe filled with saline (as described for flushing the catheter),
 - Alcohol pads.
 - e. IMPORTANT: Make sure the clamp is closed, so that air will not enter your heart.
 - f. Flush the new sterile cap or valve with saline. Leave it in the packaging so you *do not touch the end that goes to the catheter*.
 - g. Scrub the old cap with alcohol, especially where the catheter and cap meet.
 - h. Unscrew and remove the old cap.
 - i. Use an alcohol pad or gauze to clean the end of the catheter. *Do not allow the end of the opened catheter to touch anywhere. This is a path directly to the bloodstream.*
 - j. Remove the saline-filled cap from the package and screw it into the catheter. Make sure it fits tightly.
 - k. Dispose of all used supplies.

SPOTTING PROBLEMS

Call your home health nurse immediately if you experience any of the following:

OTHER INSTRUCTIONS

Signs of Infection

- Swelling, pain, or drainage around insertion site.
- Chills or fever over 101°F.

Signs of Damaged or Blocked Catheter

- Inability to flush the catheter.
- Pain or swelling when you attempt to flush.
- Clear fluid or blood leaking from the insertion site.
- Fluid leaking from any part of catheter during infusion or flushing.

Signs Your Dressing Is No Longer Occlusive

- Air pockets,
- Moisture,
- Loose or peeling edges.

Signs of Serious Complications That May Require Immediate Medical Treatment

If during infusion of medication or flushing of catheter, you have any of these symptoms, it could be an emergency. Activate the Emergency Medical System immediately (call 911).

- Sudden pain in your chest, shoulder, or lower back,
- Cough and shortness of breath,
- Pounding headache,
- Fast, irregular heartbeat,
- Dizziness or fainting.