

Central Venous Catheter: Heparin Locking Using a Positive Pressure Cap



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What is Heparin Locking?

You flush the lumen of the catheter with a heparin solution to keep it open and free of blood clots. If you have a catheter with a double line, you must flush both lumens. This is "heparin locking". Choose a time of day to do it when you will not feel rushed. You will need to heparin lock the catheter _____.

How and why to keep the catheter sterile?

The catheter provides an easy route for germs to enter the body. It is important to keep the area on which you put your equipment, the equipment itself, your hands and the catheter as free of germs as possible. This is very important when you open or enter the catheter.

1. Gather the equipment.

- antibacterial soap
- alcohol
- paper towels
- 3-4 Chlorhexidine/alcohol swabs
- 10 ml pre-filled syringe of heparin (5 mL of 10 u/mL)

- ### 2. Clean a non-porous work surface (e.g. stainless steel cookie sheet, hard smooth plastic or glass tray. If unsure, discuss with your nurse).



Use alcohol and a paper towel.

3. Scrub your hands for 1 minute.

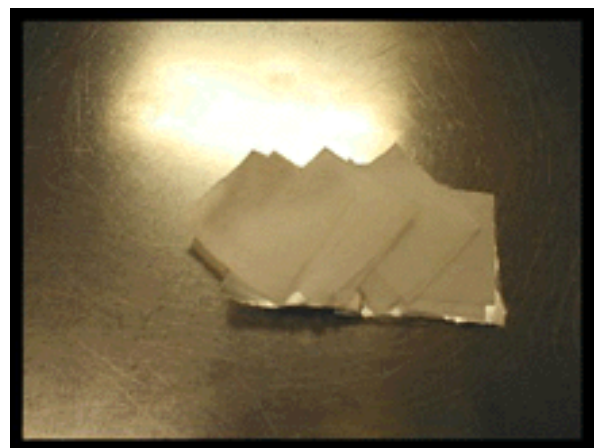
Remove all rings and your watch. Use antibacterial soap and scrub for 1 minute, rinse well, then dry with paper towels and turn off the taps using the paper towel.



4. Open the Chlorhexidine/alcohol swabs.

Open the first package on 3 sides and set it down as an open book. (This provides a sterile surface on which to set down the next 3 swabs.)

Open the next 3 swabs and lay each one beside the next on the sterile surface. Touch only one corner. Put the swabs down so that these contaminated corners all face the same direction and lie off the sterile surface.



5. Prepare the pre-filled heparin syringe.

Open the syringe package and place syringe on tray.

6. Clean the Positive pressure injection cap and catheter.

Scrub the top of the cap with a chlorhexidine/alcohol swab for 30 seconds.

Holding the cap with the swab, surround the catheter with a second swab and clean from the cap along the catheter, including the clamp, towards the exit site.

Do this once only and then discard the swab. Discard the swab from the end of the cap. Do not put the catheter down after you clean it. Allow the catheter to dry for 1 minute.



8. Inject the heparin.

With one hand, open the clamp.

With the other hand, do 2 quick pushes on the plunger then steadily push in _____ mL, then remove the syringe. **Note: When you remove the syringe the positive pressure cap pushes a small amount of fluid forward to ensure the end of the catheter inside the body is flushed.**

There should still be heparin in the syringe when you unscrew the syringe.

Clamp the catheter.



7. GRASP cap, firmly PUSH and TWIST heparin lock syringe into cap until tight.



9. Wipe the catheter.

Use the remaining swab to wipe the top of the cap.

Cautions.

If the solution will not enter the catheter freely, **DO NOT FORCE IT**. Check that the clamp is off. If this is not causing the problem withdraw the syringe and contact your doctor. The blockage may be caused by a clot in the line.

Keep air bubbles from entering the catheter by:

- removing them from the syringe before you inject the heparin
- never completely empty the syringe

Never reuse equipment.

If you are worried about any of these instructions, please feel free to call:



Contacts:

Community Nurse

Telephone: _____

Doctor

Telephone: _____

Hospital Nurse or other contact

Telephone: _____

Developed by the health care professionals of the OncologyHaematology/BMT Department and Parenteral Therapy with assistance from the Department of Learning & Development.

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At Children's & Women's Health Centre of British Columbia we believe parents are partners on the health care team. We want you to be as informed as possible. This brochure will answer some of your questions. Please ask about things you do not understand and share your concerns.

If you have any questions, please contact one of the contacts listed above.