

# Central Venous Catheter: Heparin Locking



4480 Oak Street, Vancouver, BC V6H 3V4  
604-875-2345 • 1-888-300-3088  
[www.bcchildrens.ca](http://www.bcchildrens.ca)

## 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 (10 u/ml)

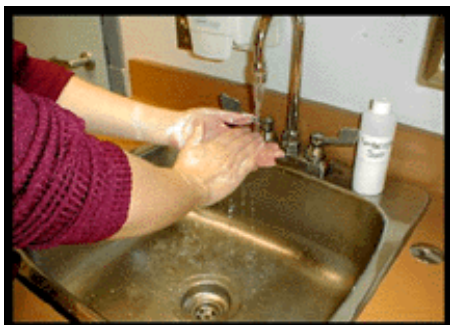
### 2. Clean a non-porous work surface (e.g. stainless steel cookie sheet, hard smooth plastic or glass tray. If unsure, discuss \_\_\_\_\_)

Use alcohol and a paper towel.



### 3. Scrub your hands for 1 minute.

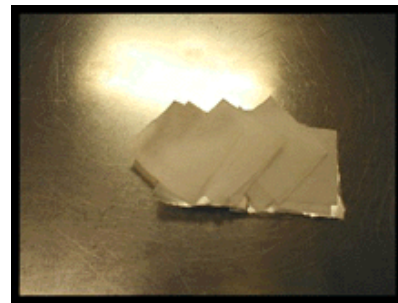
Remove all rings and your watch. Use antibacterial soap and scrub for 1 minute, rinse well, then dry with paper towels and turn off the taps using the paper towel.



### 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.

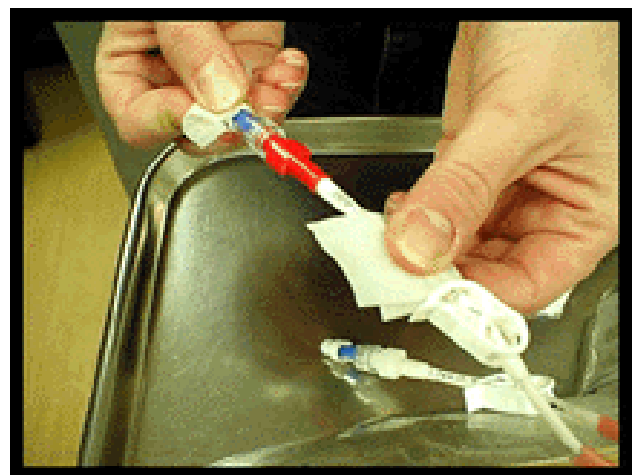
Open the syringe package and place syringe on tray.

### 6. Clean the 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.



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



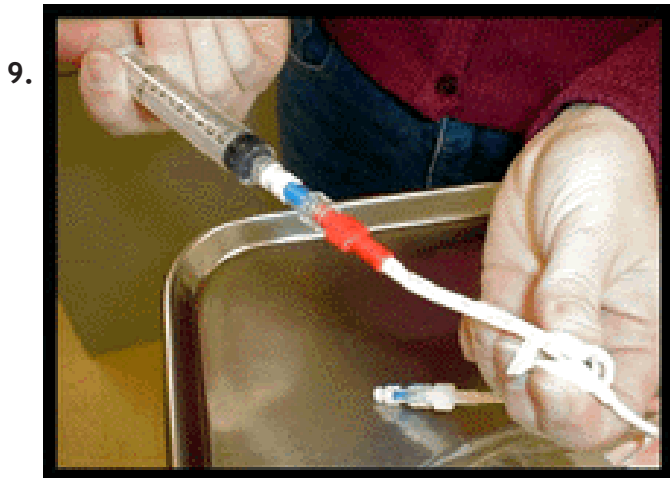
8. Inject the heparin.

With one hand, open the clamp.

With the other hand, do 2 quick pushes on the plunger then steadily push in \_\_\_\_\_ mL. Clamp the catheter while still pushing the plunger. (This prevents blood from backing into the line.)

Remove the syringe from the injection cap. There should still be heparin in the syringe when you unscrew the syringe.

Set the syringe down.



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 remove 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 emptying 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: \_\_\_\_\_

At BC Children's Hospital 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 call one of the contacts listed above.

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