

Module 5 – Your Dialysis Catheter

Important Tips for a Healthy Catheter

- **Think clean.** We cannot emphasize this enough. Protect yourself from infection. Wash your hands and use good technique every time you use your catheter.
- Never touch the ends of the catheter. The catheter tip sits inside your heart. Bacteria (germs) that touch the end of the catheter or catheter connector cap can travel right to your heart.
- If you accidentally touch one of the open catheter lines or if you find that your catheter connector cap has fallen off or is damaged, soak the end of the line with disinfectant wipe for 1 minute. Attach a new catheter connector cap. Call your nurse if the catheter connector cap is missing.
- Infections that are caught early are more easily treated. Take your temperature regularly. Call your nurse or doctor immediately and go to the hospital emergency room if your temperature is 37.5°C or higher or if you have rigors [uncontrollable shaking] and chills.
- Do not soak in a tub or go swimming with your catheter.
- Read “**Showering with a Hemodialysis Catheter**” at BCRenal.ca.
Click: **Health Info → Managing My Care → Vascular Access → Catheter**



1. Watch for air

- Always close your catheter clamps. Make sure they are closed every time you change your catheter connector caps, connect a syringe, or attach a bloodline.
- Keep syringes upright when you check your flows so that air bubbles get trapped in the top of the syringe.

2. Changing your dressing

- Change your dressing _____ days per week (talk to your nurse).
- Many people change their catheter dressing after bathing.
- Try to keep your dressing dry. If it gets wet, change it.
- Use a mirror when changing your dressing.
- If you notice pain or redness around the catheter or any drainage, call your nurse.

3. Blood flow changes

- Changes in your catheter blood flow and changes to usual arterial/venous pressure readings can mean there is either a clot forming in your catheter or a fibrin sheath may be growing around the tip of your catheter. You may need to change your catheter connector cap.
- If this happens, tell your nurse. A medication “CATHFLO” can be injected into your catheter line to safely dissolve the clot or fibrin sheath.

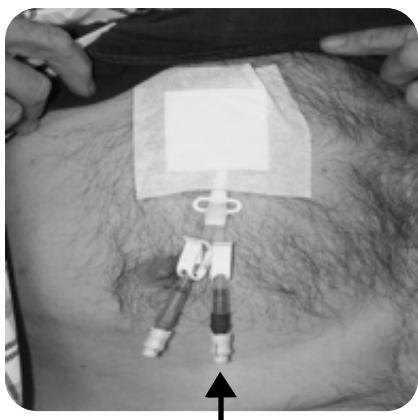
4. Only use your catheter for dialysis. Your catheter should never be used for anything other than hemodialysis.

How to change your catheter connector caps



Important points to remember:

- Catheter connector caps are changed weekly. You may need to change them more frequently if you notice a clot in the end or the blood is not moving well.
- If the catheter connector cap becomes loose or falls off, make sure the catheter remains clamped. You are at risk for infection and air entering your bloodstream, and need urgent care. Call your nurse and go to your hospital emergency room.



Catheter connector cap

Did you
KNOW?

A **Luer Lock** is a screw connection on a syringe or catheter connector cap that creates a leak-free seal.



An example
of a Male
Luer end of
a catheter
connector
cap



Supplies:

- 2 clean drapes
- Chlorhexidine wipes (several)
- 2 catheter connector caps
- Two 10 mL empty syringes
- Two 20 mL prefilled saline syringes or four 10 mL prefilled saline syringes
- 2 gauze packages (4 x 4's)
- Tape (1 inch)
- 2 plastic clamps
- Face mask
- Hand sanitizer

Optional Supplies

- Blood detector (enuresis alarm) if you will be sleeping while on dialysis.
- Gloves
- Table mirror with a stand

Instructions

1. Wash your hands for a full minute.
2. Sanitize hands and put on mask .
3. Remove gauze dressing from catheter lines.
4. Prepare your supplies on a clean drape.
5. Carefully peel open catheter connector cap package. Attach 20 mL or 10 mL prefilled syringe to the cap and prime. Repeat with second cap.
6. Tape or clamp second clean drape to your shirt under the catheter lines.
7. Using a disinfecting wipe, cleanse each catheter connector cap using friction scrub for 30 seconds. Be sure to scrub around the catheter connector cap. Use new wipes for each catheter connector cap.

8. Air-dry the catheter lines for 30 seconds.
9. Attach an empty 10 mL empty syringe to arterial lumen catheter connector cap.
10. Open arterial lumen clamp and withdraw locking solution, blood and/or clots (total 5 mL). Close clamp. Discard syringe.
11. Assess catheter function by attaching a new 10 mL syringe to the arterial lumen catheter connector cap and aspirate 3–5 mL of blood to check the flow of the lumen 3 times to evaluate lumen flow. Clamp arterial lumen.
12. Repeat steps 9–11 using the venous lumen. Pre-dialysis blood work can be drawn at this time.
13. Remove the 4 x 4 gauze and place catheter lines on a sterile 4 x 4 gauze.
14. Ensure the catheter clamps are closed. Carefully remove old catheter connector cap from arterial limb and discard. Scrub the sides (threads) and end of the hub thoroughly with friction, making sure to remove any residue (e.g., blood) for 30 seconds. Discard wipe. ***Do not touch open ends with your hands.***
15. Attach male luer end of catheter connector cap with prefilled syringe attached to the arterial limb of the catheter. Leave catheter clamped and move to venous limb of catheter.
16. Repeat step 14–15 for the venous lumen catheter connector cap.
17. Open clamp on arterial port. Flush lumen using a forceful flush method. Repeat if using 10 mL prefilled syringe. Clamp lumen. (Total: 20 mL per lumen).
18. Repeat step 17 on venous port.
19. Leave both clamps closed.
20. If starting dialysis go to step 13 of ***Starting dialysis using a catheter procedure.***
21. If not starting dialysis wrap catheter lumens with 4 x 4 gauze and tape.

Starting dialysis using a catheter



Supplies:

- 2 clean drapes
- Disinfectant wipes (several)
- Two 10 mL empty syringes
- Two 20 mL or four 10 mL prefilled saline syringes
- One 4 x 4 gauze package
- Tape (1 inch)
- 2 plastic clamps
- Face mask
- Hand sanitizer

Optional Supplies

- Blood detector (enuresis alarm) if you will be sleeping while on dialysis.
- Gloves
- Table mirror with a stand

Have machine set up and ready to go BEFORE you open up your catheter.

1. Wash hands .
2. Cleanse hands using hand sanitizer. Let air dry.
3. Prepare your supplies on one of your drapes.
4. Remove old gauze covering the catheter (never use scissors as this may accidentally slice the catheter).
5. Ensure clamps are closed.
6. Using a disinfecting wipe, cleanse each catheter connector cap using friction scrub for 30 seconds. Let air dry for 30 seconds. Be sure to scrub around the catheter connector cap. Use new wipes for each catheter connector cap.
7. Attach an empty 10 mL empty syringe to arterial lumen catheter connector cap.

8. Open arterial lumen clamp and withdraw locking solution, blood and/or clots (total 5 mL). Close clamp. Discard syringe.
9. Assess catheter function by attaching a new 10 mL syringe to the arterial lumen catheter connector cap and aspirate 3–5 mL of blood to check the flow of the lumen 3 times to evaluate lumen flow. Clamp arterial lumen.
10. Repeat steps 7–9 using the venous lumen. Pre-dialysis blood work can be drawn at this time.
11. Attach a 20 mL (or 10 mL) prefilled normal saline syringe to the arterial lumen catheter connector cap. Flush lumen using a forceful flush method. Repeat if using 10 mL syringe. Clamp lumen. (Total: 20 mL per lumen).
12. Repeat step 11 on the venous port.

Connect bloodlines and initiate dialysis:

13. Remove syringe from the arterial blood line catheter connector cap and discard. Ensure there is no air in the arterial blood line. Connect the arterial blood line to the arterial catheter connector cap without touching the ends. Ensure connections are tight.
14. Repeat step 13 on venous blood line

End of dialysis using a catheter

**See your machine flip chart or manual for rinseback procedure.
Follow these instructions only after your blood has been returned.**



Supplies:

- 2 clean drapes
- Disinfecting wipes (several)
- 2 gauze packages (4 x 4's)
- Two 20 mL or four 10 mL prefilled saline syringes
- 2 prefilled Sodium Citrate syringes

1. Use hand sanitizer to cleanse hands.
2. Prepare your supplies on your drape.
 - a) Prepare your sodium citrate 4% syringes. Using the plunger, expel excess sodium citrate. You need _____ mL in each syringe.
 - b) Open disinfecting wipe packages.
3. Clip drape to your shirt under your catheter lines using two clamps or tape.
4. Give back your blood and take sitting and standing blood pressures (see your machine training manual or flipchart).
5. Cleanse hands again to prepare for take-off.
6. Scrub the arterial and venous catheter connector cap with a disinfecting wipe. Scrub the sides, and connector, thoroughly with friction, making sure to remove any residue (e.g., blood) for 30 seconds. Let air dry. Discard wipe. Place lines on a dry 4 x 4-inch gauze .
7. Check that both catheter and bloodlines are clamped.
8. Carefully separate arterial bloodline from arterial line catheter connector cap.
9. Wipe the catheter connector cap end with a disinfecting wipe and allow to air dry; attach a 20 mL prefilled saline syringe .
10. Open the arterial line clamp and push through saline.
11. Remove empty syringe and replace with pre-prepared sodium citrate 4% syringe. Open clamp on arterial line and insert sodium citrate 4%. Clamp arterial line.
12. Repeat above steps with the venous catheter line.



Important to note:

My catheter lines contain

A: _____

V: _____ of sodium citrate 4%.

Changing your dialysis catheter dressing



Supplies:

- 2 clean drapes
- Disinfecting wipes or sticks (several)
- 1 tape (1 inch)
- 2 plastic clamps
- Small garbage bag
- Face mask
- Hand sanitizer
- Dressing—discuss with your nurse the best dressing for you.



Dialysis catheter dressing

1. Wash your hands for a full minute.
2. Prepare your supplies.
 - a) Open your disinfecting wipes or sticks.
 - b) Open your dressing and place on the drape. Do not remove protective seal.
 - c) Clip the second drape onto your shirt (if doing dressing change while clothed).
 - d) Put on your mask.
3. Remove old dressing. Look for any changes in your skin condition. Is it red? Is there drainage? Is there pain? Report anything unusual to your nurse.
4. Cleanse hands using hand sanitizer.
5. Clean site using disinfecting wipes or sticks. Clean from using a waffle motion. Discard wipe and repeat this step.
6. Allow to air dry. (30 seconds — 1 minute)
7. Attach new dressing. Peel off backing and attach to skin overlapping about two inches of the catheter under the dressing. Avoid touching the middle part of the dressing.



Notes- Your Dialysis Catheter