



Your Hemodialysis Catheter

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What you should know about your dialysis catheter

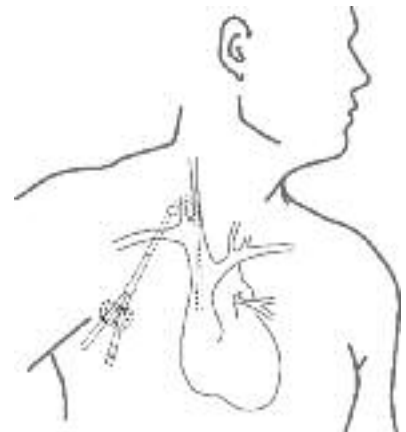
1. Think clean.



- **Clean, clean, clean.** We cannot emphasize this enough. Protect yourself from infection. Wash your hands and use good technique every time you use your catheter.
- Keep in mind that you can never touch the ends of the catheter. Your catheter goes right into your heart. Bacteria that touches the ends of the catheter could potentially travel right to your heart.
- If you do accidentally touch one of the open catheter lines or if you discover that your catheter cap is off, soak the end of the line immediately with antiseptic soaked gauze for 1 minute and report to your nurse.
- Infections that are caught early are more easily treated. Take your temperature regularly and notify your doctor and immediately go to the hospital emergency room if your temperature is 37.5C or higher.
- Do not soak in a tub or go swimming with your catheter.

2. Watch for air.

- Be aware of your catheter clamps. Make sure they are closed every time you change your connector caps or connect to a syringe.
- Keep syringes vertical when you check your flows so that air bubbles get trapped in the top of the syringe.
- Watch closely as you return the arterial blood side as there is no air detector on the arterial bloodline.





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Starting dialysis using a catheter

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

What do you need?

- 1 new waterproof drape
- 1 bottle of antiseptic solution (ask your care provider).
- 2 antiseptic swabs
- 4 gauze packages (4 x 4" squares)
- 3 (10cc) syringes
- 2 (20cc) syringes
- 1 bottle of heparin 1000 units/ml
- 3 20-gauge needles
- Tape (1 inch)
- 2 catheter connectors
- 2 plastic clamps
- Small garbage bag
- Table mirror with a stand
- Face mask
- Hand sanitizer

If you are also preparing post dialysis supplies, use the list below: (set aside until the end of treatment)

- 2 (20cc) syringes
 - 2 (3cc) syringes
 - 4 21-gauge needles
 - 1 bottle of heparin or alternative medication for your lines after dialysis (ask your nurse)
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- End caps or connectors (ask your nurse)

Why is this important?

To keep blood off your table and to keep your surfaces clean.

Amuchina may be used as an alternative to chlorohexadine solution.

To help you see your lines.

To prevent contamination.



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Optional supplies

- Locking box (to secure catheter connections for nocturnal HD).
- Blood detector (enuresis alarm) if you will be sleeping while on dialysis.
- Gloves (have your helper use them).
- Syringe tip caps.

Instructions

1. **Wash** your hands and arm for a full minute.

Related points to note

This initial wash removes oils from your skin. Washing your hands and arm is the best way to prevent infections.



2. **Prepare** your surface and assemble your supplies on one of your drapes. Attach a garbage bag on the side of your table.

To keep blood off your table and to keep your surfaces clean.

Ask your nurse if you are unsure about your initial heparin dose.

a) Draw up your initial dose of heparin using a 21-gauge needle and one 10cc syringe.

Swab the tops of the heparin bottle and ensure clean technique while drawing up heparin.

b) Draw up 4 (20cc) syringes with saline. (Use 2 of the filled syringes for the end of dialysis..)

To flush catheter lines.

c) Half open 2 10-cc syringes, but leave ends inside the wrappers.

Leaving them in the packages keeps the ends clean.

d) Open catheter connectors from wrappers and attach the 10cc syringes.

e) Half open all 4 (4x4") gauze packages with the bottom paper of the package still intact.



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Instructions...cont.

- f) Apply antiseptic solution (about 10cc of solution) in the centre of 2 gauze packages.
- g) Angle your mirror so that you can see the catheter lines.
- h) Remove old gauze covering lines from your last treatment.
- i) Clip drape to your shirt under your catheter lines using 2 clamps.
- j) Put on your mask.
- k) Double check that both catheter clamps are closed.

Related points to note...cont.

Be gentle and avoid tugging on the lines.

Keeps your clothing clean.

To avoid breathing on your open catheter lines.



3. Clean your hands.

Using hand sanitizer.

Ask your nurse about what antiseptic to use.

4. Clean catheter ends.

Wrap each catheter end with a 4x4" gauze soaked in antiseptic.
Rub each catheter end for 30 seconds using soaked gauze.
Place dry gauze under cleaned lines and leave to dry for at least 30 seconds.

If you are not using catheter connections, remove catheter caps after they have been soaked.

Be careful not to touch line ends with your hands, gloves or anything else.

5. Remove old heparin or _____.

Attach empty 10cc syringes to each catheter line one at a time.

Working one catheter at a time, open clamp and pull back on syringe plunger to remove 4–5cc of heparin and blood.

Close clamp on both lines.

When using connectors some pressure is necessary to connect securely.

Watch for air! Ensure your syringe is in a vertical position.



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Instructions...cont.

6. Flush lines with saline.

Remove 10cc syringes one at a time and replace with 20cc syringes.

Open the arterial (red) line.

Push through saline solution and then pull back on plunger. Repeat 3 times to check the flow of blood.

Syringe must be in a vertical position.

Repeat above procedure with the venous (blue) line.

Related points to note...cont.

Be careful not to touch lines ends with your hands, gloves or anything else.

Sometimes the catheter inside your blood vessel moves and the end of the catheter may get stuck on the side of a vein. If you notice a decrease in your arterial blood flow, change your body position and cough. This can help to move the catheter back to its correct position.

If it is still difficult to pull up the blood in the syringe, check the troubleshooting guide.

7. Give initial heparin bolus.

Replace the 20cc syringe on the venous line with the 10cc syringe with heparin.

Push solution in and out 3 more times checking blood flow.

Close clamp on the lines.

Do not attempt to hook-up if you have a poor blood flow. (See troubleshooting guide page _____.)

8. Connect to machine

Connect to blood lines, open (line) clamps and start dialysis.

If you will be sleeping while on dialysis, tape enuresis alarm to catheter ends.

Optional

Wrap catheter lines with clean (4x4") gauze.

To ensure line has not clotted.

Review your machine training guide.

Review this with your training nurse.

Enuresis alarm will sound if it detects moisture. Make sure you use this if you sleep while on dialysis.



Your Hemodialysis Catheter

End of dialysis using a catheter

Review your machine training guide.

What do you need?

- 1 new waterproof drape
- 2 (20cc) syringes filled with saline
- 2 (3cc) syringes
- 4 21-gauge needles
- 1 bottle of heparin or alternative medication for your lines after dialysis (ask your nurse)
- End connectors
- 4 gauze packages (4x4")
- Antiseptic solution

Why is this important?

To keep blood off your table and to keep your surfaces clean.

Ask your nurse if you are unsure of your post heparin dose.

Swab the top of the heparin bottle and ensure clean technique while drawing up heparin.

Instructions

1. Wash your hands and arm for a full minute.

2. Prepare your surface and assemble your supplies on your drapes.

- a) Draw up your post dialysis dose of heparin using a 21 gauge needle and 2 (3cc) syringes.
- b) Draw up 2 (20cc) syringes with saline. (If this wasn't done already.)
- c) Open catheter caps from wrappers but leave them inside the wrapper.
- d) Half open all 4 (4x4") gauze packages with the bottom paper of the package still intact.

Related points to note

This initial wash removes oils from your skin. Washing your hands and arm is the best way to prevent infections.

Leaving them in the packages keeps the ends clean.



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Instructions...cont.

- e) Apply antiseptic solution (about 10cc of solution) in the centre of 2 gauze packages.
- f) Angle your mirror so that you can see the catheter lines.
- g) Clip drape to your shirt under your catheter lines using 2 clamps or tape.
- h) Put on your mask
- i) Give back your blood and take sitting and standing blood pressures. (See your machine manual or procedure notes.)

Related points to note...cont.

Keeps your clothing clean.

To avoid breathing on your open catheter lines.

3. Clean your hands.

Using hand sanitizer.

To eliminate germs.



4. Clean catheter ends.

Make sure both lines are clamped

Wrap each catheter end with a 4x4" gauze soaked in antiseptic.

Rub each catheter end for 30 seconds using soaked gauze.

Clean catheter ends one at a time.

Avoid leaving catheter ends open.



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Instructions...cont.

5 Flush lines.

Without touching the lines or catheter ends attach 20cc syringes with normal saline to the end of one of the catheters. Push through saline solution.

Close clamp on catheter line and insert heparin or other medication (e.g. _____) into your line ports.

My catheter lines contain _____.

My catheter length is:

- on A side _____
- on V side _____

Related points to note...cont.

6. Cap lines.

Without touching line ends or cap ends connect connector ports.

Change ports every _____ days.

Repeat with other line

Wrap capped catheter lines with gauze and tape or _____.

Changing connector ports regularly reduces the chance of infections and clotted ports.



Your Hemodialysis Catheter

Changing your dialysis catheter dressing



What do you need?

- 1 new waterproof drape
- 1 bottle of antiseptic solution (ask your care provider)
- 4 gauze packages (4x4" squares)
- Tape (1 inch)
- 2 plastic clamps
- Small garbage bag
- Table mirror with a stand
- Face mask
- Hand washing soap
- Hand sanitizer
- Dressing (Ask your nurse about what dressing is right for you.)

Why is this important?

To keep blood off your table and to keep your surfaces clean.

Amuchina may be used as an alternative to chlorohexadine solution.

To help you see your lines.

To prevent contamination.



Your Hemodialysis Catheter

Instructions



1. Wash your hands and arm for a full minute.

2. Prepare your surface and assemble your supplies.

- 4 gauze packages (4x4")
- Antiseptic solution _____
- Dressing
- Clamps
- 2 drapes
 - a) Half open all 4 (4x4") gauze packages with the bottom paper of the package still intact.
 - b) Apply antiseptic solution (about 10cc of solution) in the centre of 2 gauze packages.
 - c) Angle your mirror so you can see the catheter dressing or use your bathroom mirror.
 - d) Open your dressing and place on the drape.
 - e) Clip your drape on your shirt (if doing dressing change while clothed).
 - f) Put on your mask.

3. Remove old dressing

Related points to note

This initial wash removes oils from your skin. Washing your hands and arm is the best way to prevent infections.

It may be helpful to do your dressing in the bathroom after bathing.

To keep blood off your table and to keep your surfaces clean.

Look for any changes with your skin

As you change your dressing look at the skin: Is it red? Is there drainage? Is there pain?

Report anything unusual to your nurse.



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4. Clean hands using hand sanitizer To eliminate germs.

5. Clean site

- Using the soaked gauze, clean catheter site in a circular motion – starting closest to the catheter entrance. Moving from cleanest area, next to the catheter entrance, to the less clean area further away helps prevent infection.
 - Allow the area to air dry.
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6. Attach new dressing

- Peel off backing and attach to skin overlapping about 2 inches of the catheter under the dressing. Avoid touching the middle part of the dressing.
- Wrap lines with gauze.