

**HOW TO
ACCESS A
CENTRAL VENOUS CATHETER**

**HOME HEMODIALYSIS
INFORMATION GUIDE**

For users and their families

This pamphlet describes the steps involved in the aseptic (non-sterile) technique for accessing a central venous catheter (CVC) with a TEGO cap during home hemodialysis. Be sure to handle the CVC very carefully. Each of your movements is important in ensuring your safety. This pamphlet will provide you with a list of the materials required, the steps involved in preparing for using the CVC and connecting the tubes, as well as important things to watch out for.

Materials required

- ✓ Hand sanitizer
- ✓ 2 empty 10 mL syringes
- ✓ Medical tape
- ✓ 1 clean washcloth
- ✓ 6 large swabs formulated with 2% chlorhexidine and 70% alcohol
- ✓ 4 syringes prefilled with non-sterile saline solution (0.9% NS)
- ✓ Antiseptic wipes
- ✓ 1 procedure mask



Step 1 - Preparation

1. Wash your hands with soap and water.
2. Put on the procedure mask.
3. Disinfect the table with a disinfectant wipe and allow it to dry.
4. Wash your hands with soap and water.
5. Remove the following items from their packaging and place them on the table with the packaging:
 - The 2 empty 10 mL syringes
 - The 4 syringes prefilled with non-sterile 0.9% NS
 - The 6 large swabs formulated with 2% chlorhexidine and 70% alcohol (but don't open them).
6. Remove any air from the 4 syringes prefilled with non-sterile 0.9% NS by gently pressing the piston. Keep the syringes capped.
7. Wash your hands with hand sanitizer.

Step 2 - Connecting the arterial line (red colour)

1. Gather up the TEGO cap seal for the arterial line (red).
 - Open the swab.
 - Disinfect the TEGO cap seal **for 30 seconds** with a large swab formulated with 2% chlorhexidine and 70% alcohol .
2. Gather up the empty 10 mL syringe and connect it to the arterial line (red).
3. Unclamp the catheter.
4. Draw 5 mL of blood into the syringe and clamp the catheter.
5. Detach the syringe and keep the TEGO cap in position.
6. Open a large swab formulated with 2% chlorhexidine and 70% alcohol.
7. Remove the drop of blood from the catheter hub and let it air dry.
8. Gather up the syringe prefilled with non-sterile 0.9% normal saline and remove the cap.
9. Twist the syringe into the TEGO cap at the catheter hub, arterial line (red).
10. Unclamp the arterial line (red).
11. Infuse the saline solution using a pulsing pressure (1 mL at a time, taking a one-second pause between each millimetre).
12. Check the resistance of the catheter.
 - Draw 10 mL of blood.
 - Push the blood back out until only 1 mL of blood is left in the syringe.
 - Repeat 3 times and clamp the catheter.
13. Detach the syringe.
14. Gather up and open a large swab formulated with 2% chlorhexidine and 70% alcohol.
15. Remove the drop of blood from the catheter hub and let it air dry.
16. Gather up the syringe prefilled with non-sterile 0.9% normal saline and remove the cap.
17. Twist the syringe into the TEGO cap and unclamp the catheter.
18. Irrigate the catheter using a second syringe prefilled with 0.9% normal saline and clamp the catheter again.

Step 3 - Connecting the venous line (blue colour)

1. Gather up the TEGO cap seal for the venous line (blue).
 - Open the swab
 - Disinfect the TEGO cap seal **for 30 seconds** with a large swab formulated with 2% chlorhexidine and 70% alcohol.
2. Gather up the empty 10 mL syringe and connect it to the venous line (blue).
3. Unclamp the catheter.
4. Draw 5 mL of blood into the syringe and clamp the catheter again.
5. Detach the syringe.
6. Open a large swab formulated with 2% chlorhexidine and 70% alcohol.
7. Remove the drop of blood from the catheter hub and let it air dry.
8. Gather up the syringe prefilled with non-sterile 0.9% normal saline.
9. Twist the TEGO cap into the catheter hub, venous line (blue).
10. Unclamp the venous line (blue).
11. Infuse the saline solution using a pulsing pressure (1 mL at a time, taking a one-second pause between each millimetre).
12. Check the resistance of the catheter.
 - Draw 10 mL of blood.
 - Push the blood back out until only 1 mL of blood is left in the syringe.
 - Repeat 3 times and clamp the catheter.
13. Detach the syringe and keep the TEGO cap in position.
14. Gather up and open a large swab formulated with 2% chlorhexidine and 70% alcohol.
15. Remove the drop of blood from the catheter hub and let it air dry.
16. Gather up the syringe prefilled with non-sterile 0.9% normal saline.
17. Twist the syringe into the TEGO cap and unclamp the catheter.
18. Irrigate the catheter using a second syringe containing 0.9% normal saline and clamp the catheter again.

Step 4 - Connecting the catheter tubes

1. Detach the arterial line hooked to the drainage bag without touching the tip of the tube.
2. Replace the syringe and twist it into the TEGO cap using the arterial line tube (red).
3. Detach the venous line hooked to the drainage bag.
4. Replace the syringe and twist it into the TEGO cap using the venous line tube (blue).
5. Unclamp the catheter and the tubes.
6. Carefully secure the connection points of the tubes using hemaclips and secure with medical tape if necessary.



Step 5 – End of the procedure

1. Remove your gloves and carry out the hand hygiene procedure with the disinfectant solution.
2. Remove the procedural mask and carry out the hand hygiene procedure with the disinfectant solution.
3. Remove the materials from the table and place them in the location provided, then carry out the hand hygiene procedure with the disinfectant solution.

Important things you should watch out for

- Check the following at the catheter entrance site:
 - The catheter is properly positioned
 - No redness
 - No discharge
 - No swelling
 - The skin is not warm
 - No other signs or symptoms
- Contact your pivot nurse if any problems arise or if you have any questions.

Important points to remember

- Always hold on to the CVC lines while disinfecting.
- Never touch the seal (interior) of the TEGO cap. Do not put the lines down after disinfection.
- Make sure you leave 1 mL of blood in the syringe whenever you are handling the TEGO cap.
- Keep the 2% chlorhexidine and 70% alcohol swab open (don't fold it).
- Proper disinfection requires some friction and 30 seconds of contact time.
- Connect the tubes one at a time. To avoid damaging the TEGO cap seal, make just a ¼ twist when connecting the syringes.
- Cleanliness is key!

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