

**HOW TO  
CHANGE TEGO CAPS**

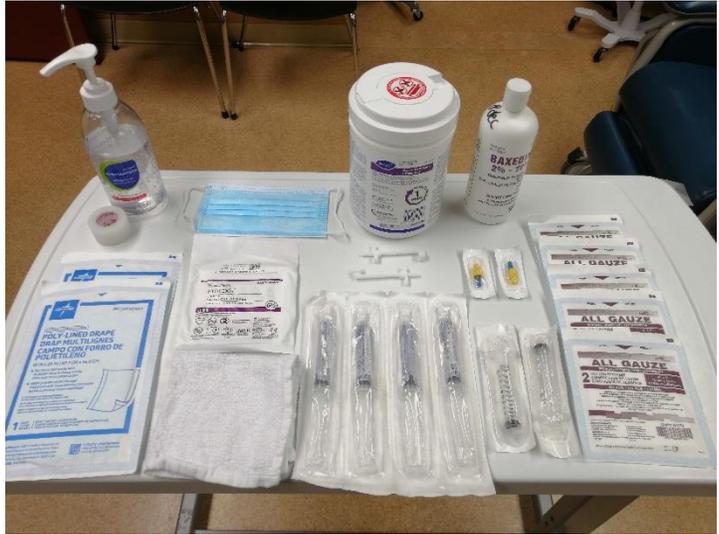
**HOME HEMODIALYSIS  
INFORMATION GUIDE**

**For users and their families**

This pamphlet describes the steps involved in the aseptic (non-sterile) technique for changing TEGO caps 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 to use the CVC and connecting the tubes, as well as important things to watch out for.

## Materials required

- ✓ Hand sanitizer
- ✓ Antiseptic wipes
- ✓ 2 empty 10 mL syringes
- ✓ Medical tape
- ✓ 2 sterile field kits
- ✓ 5 packages of 4 x4 gauze pads
- ✓ 4 – 10 mL syringes prefilled with 0.9% non-sterile saline solution (0.9% NS)
- ✓ Procedure mask
- ✓ Bottle of 2% chlorhexidine with 70% alcohol
- ✓ 2 TEGO caps
- ✓ 1 pair of sterile gloves
- ✓ 2 hemaclips



## Step 1 - Preparation

1. Wash your hands with soap and water.
2. Disinfect the table with a disinfectant wipe and allow it to dry.
3. Wash your hands with soap and water.
4. Put on the procedure mask.
5. Open one sterile field kit on the table.
6. Open, but do not touch, the following items inside:
  - the 5 packages of 4x4 gauze pads from one side of the sterile field
  - the syringes from the other side of the sterile field
  - the TEGO caps.
7. Soak the 10x10 gauze pads in 2% chlorhexidine with 70% alcohol.
8. Gather up the other sterile field kit, open it, and put it beneath the catheter.
9. Secure the sterile field using the medical tape.
10. Wash your hands with hand sanitizer.
11. Put on the sterile gloves.
12. Attach each TEGO cap to a syringe prefilled with 0.9% normal saline.
13. Make a ¼ twist to attach the syringes prefilled with 0.9% normal saline to the TEGO caps and remove the blue cap.
14. Remove any air from the 4 syringes prefilled with 0.9% normal saline by gently pressing the piston. Keep the syringes capped.

## Step 2 - Connecting and changing TEGO caps, arterial line (red colour)

1. Gather up 2 gauze pads soaked in 2% chlorhexidine and 70% alcohol.
2. Disinfect the 2 catheter lines from top to bottom for 30 seconds.
3. Gather up 2 new gauze pads soaked in 2% chlorhexidine and 70% alcohol.
4. Disinfect the area where the catheter and TEGO cap connect for 30 seconds.
5. Detach the TEGO cap from the arterial line (red).
6. Gather up a gauze pad soaked in 2% chlorhexidine and 70% alcohol.
7. Disinfect the hub of the arterial line for 30 seconds.
8. Gather up an empty 10 mL syringe and connect it to the arterial line (red).
9. Unclamp the catheter.
10. Draw 5 mL of blood into the syringe and clamp the catheter.
11. Detach the syringe.
12. Gather up a gauze pad soaked in 2% chlorhexidine and 70% alcohol.
13. Remove the drop of blood from the catheter hub and let it air dry.
14. Gather up the syringe prefilled with 0.9% normal saline with the TEGO cap.
15. Twist the TEGO cap to the catheter hub, arterial line (red).
16. Unclamp the arterial line (red).
17. Infuse the saline solution using pulsing pressure (1 mL at a time, with a one-second pause between each millimetre).
18. Check the resistance of the catheter.
  - Draw 10 mL of blood.
  - Push the blood back out until there is only 1 mL of blood left in the syringe.
  - Repeat 3 times and clamp the catheter again.
19. Detach the syringe and keep the TEGO cap in position.
20. Gather up a gauze pad soaked in 2% chlorhexidine and 70% alcohol.
21. Remove the drop of blood from the catheter hub and let it air dry.
22. Gather up a syringe prefilled with 0.9% normal saline.
23. Twist the syringe into the TEGO cap and unclamp the catheter.
24. Irrigate the catheter using a second syringe of 0.9% normal saline and clamp the catheter again.



### Step 3 - Connecting and changing TEGO caps, venous line (blue colour)

1. Remove the TEGO cap of the venous line (blue).
2. Gather up 2 gauze pads soaked in 2% chlorhexidine with 70% alcohol.
3. Disinfect the hub of the venous line for 30 seconds.
4. Gather up the empty 10 mL syringe and connect it to the venous line (blue).
5. Unclamp the catheter.
6. Draw 5 mL of blood into the syringe and clamp the catheter.
7. Detach the syringe.
8. Gather up a gauze pad soaked in 2% chlorhexidine with 70% alcohol.
9. Remove the drop of blood from the catheter hub and let it air dry.
10. Gather up the syringe prefilled with non-sterile 0.9% normal saline with the TEGO cap.
11. Twist the TEGO cap into the catheter hub, venous line (blue).
12. Unclamp the venous line (blue).
13. Infuse the saline solution using pulsing pressure (1 mL at a time, with a one-second pause between each millimetre).
14. 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 again.
15. Detach the syringe and keep the TEGO cap in position.
16. Gather up a gauze pad soaked in 2% chlorhexidine with 70% alcohol.
17. Remove the drop of blood from the catheter hub and let it air dry.
18. Gather up the syringe containing 0.9% normal saline.
19. Twist it into the TEGO cap and unclamp the catheter.
20. Irrigate the catheter using the 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, twist it into the TEGO cap using the arterial line (red) tube.
3. Detach the venous line hooked to the drainage bag.
4. Replace the syringe, twist it into the TEGO cap using the venous line (blue) tube.
5. Unclamp the catheter and the tubes.
6. Carefully secure the connection points of the tubes using hemoclips 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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