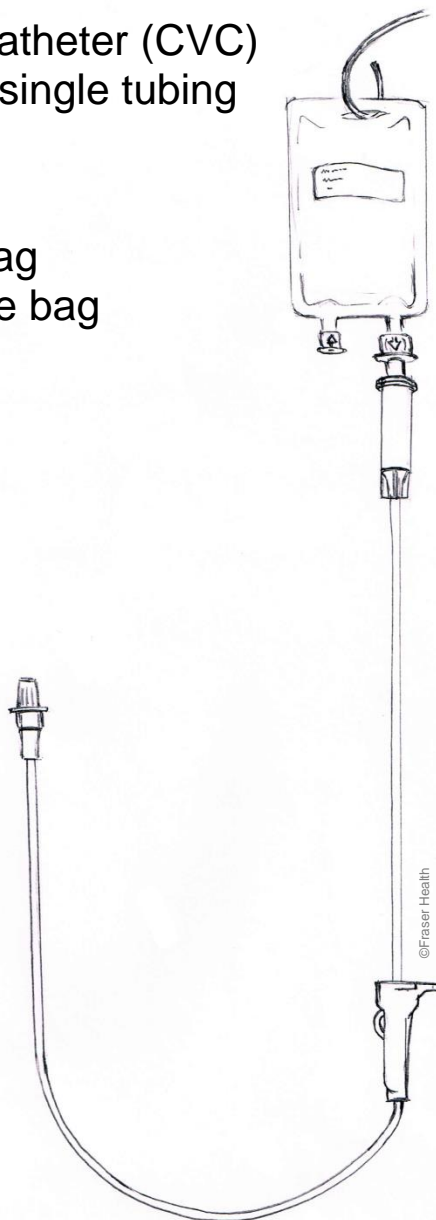


# How To Give Medication Through Your Central Venous Catheter

Abbotsford Regional Hospital and Cancer Centre  
Chilliwack General Hospital  
Fraser Canyon Hospital

Valved central venous catheter (CVC)  
with gravity system and single tubing  
(Non-Flex bag)

For 50 mL medication bag  
plus 25 mL normal saline bag



Community IV Program

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This booklet goes together with your **Introductory Book** on the Fraser Health Community IV Program. This booklet has more information to help you care for your IV system and contact information if you need to speak to a nurse about your IV system.

Always keep your 'client information' materials close by so you can follow the steps and for easy reference.

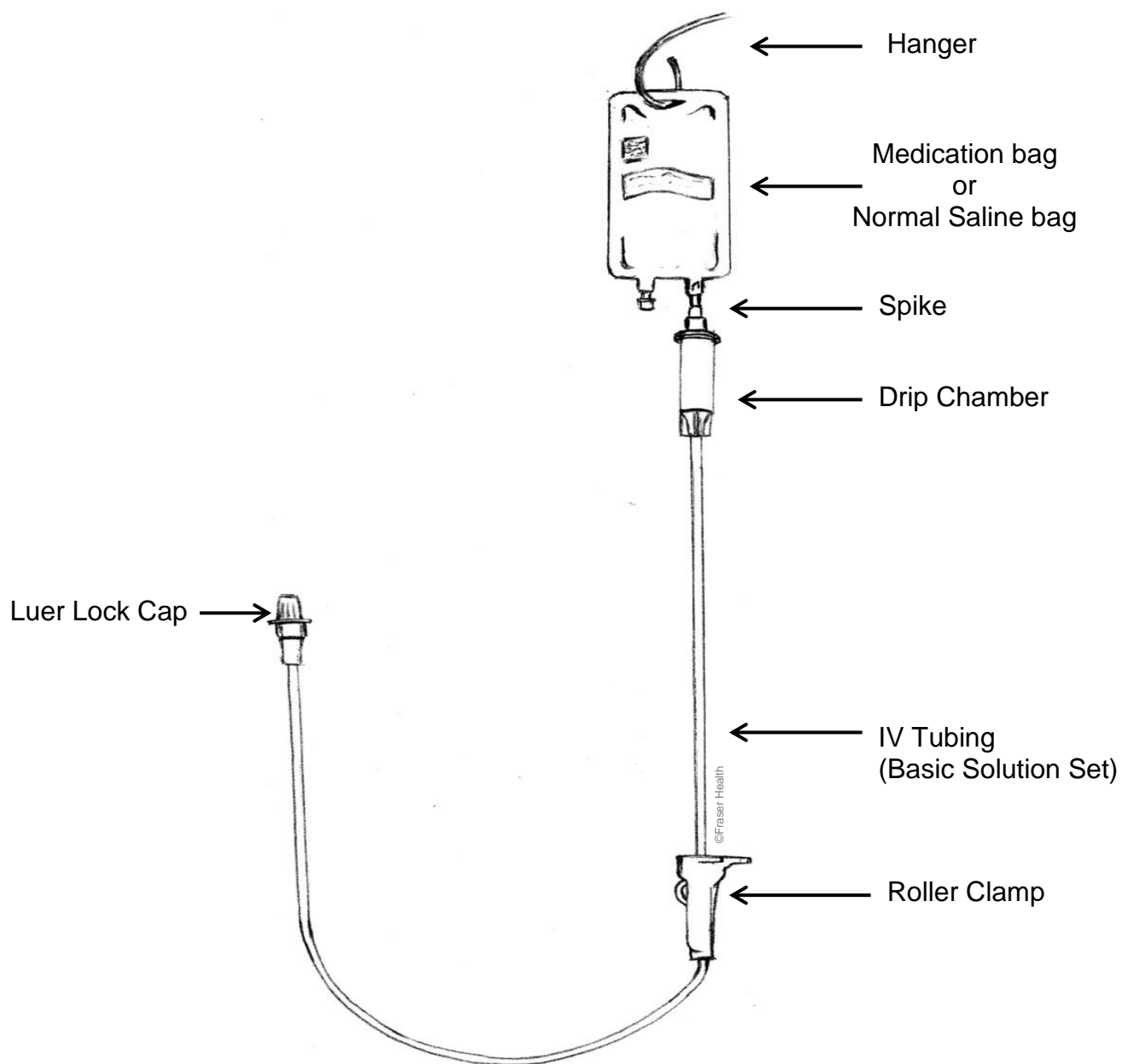
A nurse will go through this information with you and show you how to take care of your Central Venous Catheter (CVC).

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## IV Set-Up



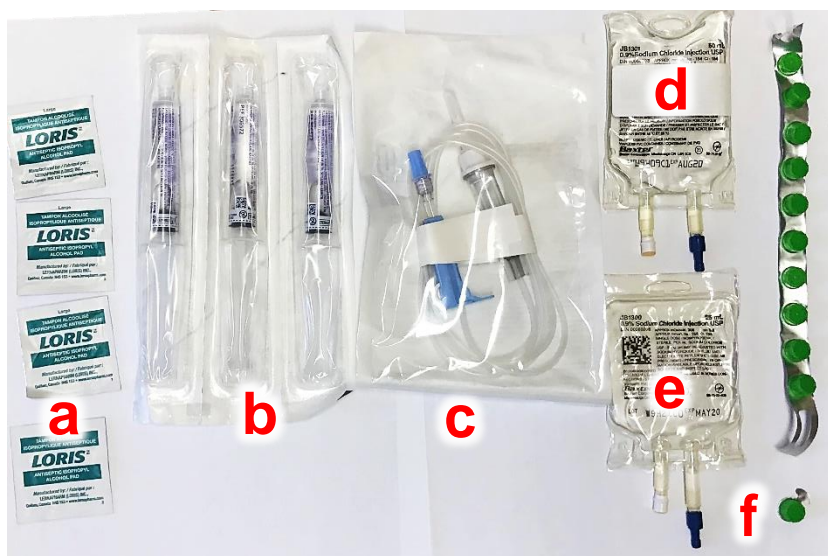
## Preparing the Basic Solution Set and Medication Bag

1. Prepare a clean work area.
2. Clean your hands with soap and water or alcohol based hand sanitizer.



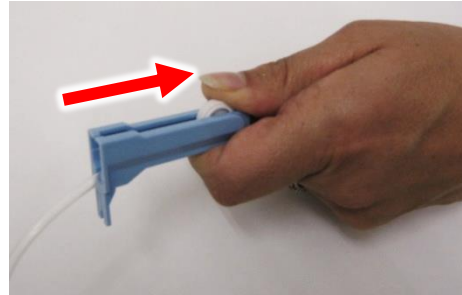
Clean work area and hands help prevent infection

3. Check your CVC site.  
If it is red, puffy or painful, call your nurse. The nurse will instruct you as to what to do next.
4. Gather your supplies:
  - a. 4 alcohol swabs
  - b. 3 prefilled saline syringes
  - c. Basic Solution Set (IV tubing)
  - d. 50 mL medication bag
  - e. 25 mL normal saline bag
  - f. Green curoc caps



**Please note:** Medication should be at room temperature. When refrigerated, remove the medication bag from the refrigerator at least 30 minutes before using.

5. Take the Basic Solution Set (IV tubing) out of the package.
6. Remove the paper wrapper.
7. Straighten the tubing while holding both ends.
8. Close the roller clamp on the tubing by rolling the roller downwards. This stops fluid from going into the tubing.



Roll clamp towards you with your thumb

9. Check the label on the medication bag for:
  - ✓ Your name
  - ✓ Correct drug
  - ✓ Correct amount or dose
10. Check the expiry date.
11. Squeeze the medication bag gently to check for leaks.

## Note

**Do not** use the bag if it is:

- cloudy
- leaking
- discoloured
- expired

**Do not** use if bag has floating particles in it.

Contact the nurse or pharmacy.

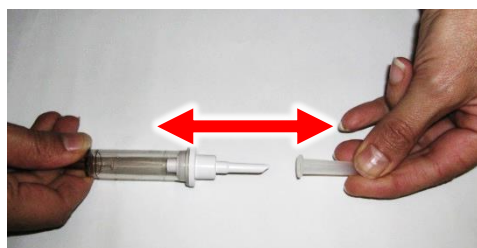
# Preparing the Basic Solution Set and Medication Bag

12. Hold the medication bag above the port with one hand.  
Remove the protective cover (usually blue) by pulling on the bottom of the protective cover.



Make sure the opening does not touch anything.

13. Pull the protective cap off the spike on the end of the Basic Solution Set.



Make sure the end does not touch anything.

14. Insert the spike into the medication bag port using a push and twisting motion.



15. Hang the medication bag on the IV pole.
16. Think about the position you will be in while you are getting the medication.  
The bag should be about 3 feet (80 cm) above your CVC site when in this position.



17. Fill the drip chamber with fluid by squeezing it and then letting it go.

Check to see if the fluid level is at the mark on the drip chamber.

Squeeze and let go again until the drip chamber is about half full.



This limits air bubbles from going into the tubing.

18. **Slowly** open the roller clamp by pushing the roller upward with your thumb to clear the tubing of air.



19. Watch the fluid go down the tubing until you see a few drops around the protective cap at the end of the tubing.

**Do not** remove the protective cap.

20. Close the roller clamp on the tubing by rolling the roller downwards.

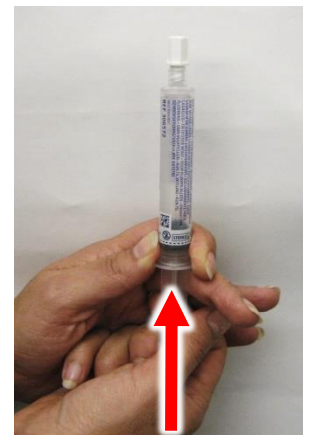
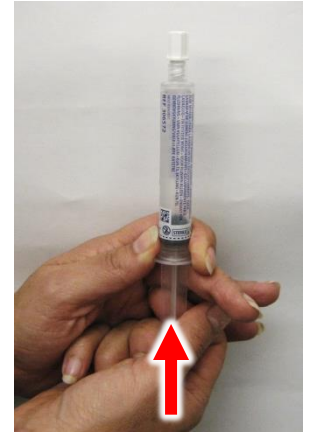


You are now finished preparing the IV tubing and medication bag.

## Preparing Syringes for Flushing

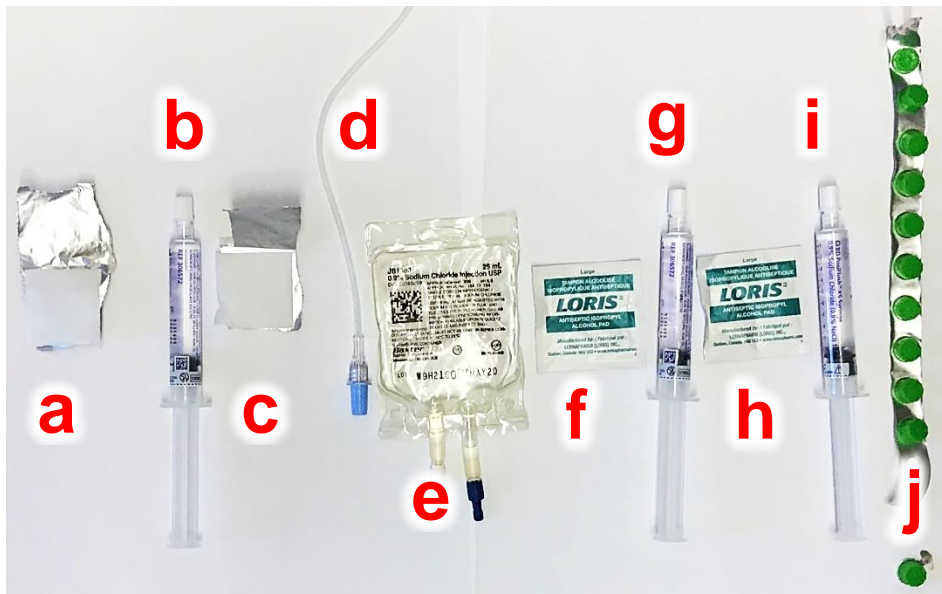
Prepare 3 pre-filled saline syringes:

1. Open the package and remove syringe.
2. Hold the syringe with tip up.
3. Push on the plunger until you hear a popping sound.
4. Slightly loosen the white cap **but do not remove the cap.**
5. Push the plunger until you see a drop of fluid at the tip.
6. Tighten the white cap.
7. Repeat steps 1 to 6 for all 3 syringes.



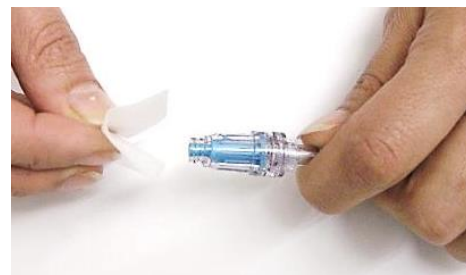
Prepare remaining supplies, placing each item in order of use:

- a. alcohol swab opened on 3 sides
- b. saline syringe
- c. alcohol swab opened on 3 sides
- d. capped end of Basic Solution Set
- e. 25 mL normal saline bag
- f. alcohol swab
- g. saline syringe
- h. alcohol swab
- i. saline syringe
- j. green curocap



## Flushing Your CVC with Pre-filled Saline Syringes

1. Remove the green curos cap from the end of the Max Zero Connector on the end of your CVC.
2. To clean the end of the Max Zero Connector on the end of your CVC:
  - Firmly hold the Max Zero Connector with one hand.
  - Clean the Max Zero Connector with an alcohol swab for thirty (30) seconds.
  - Let it dry.
3. Remove the cap from the end of the syringe.
4. To connect the syringe to the Max Zero Connector:
  - Firmly hold the Max Zero Connector.
  - Gently push and twist the syringe clockwise into the centre of the Max Zero Connector.

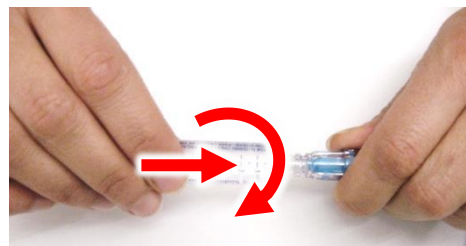
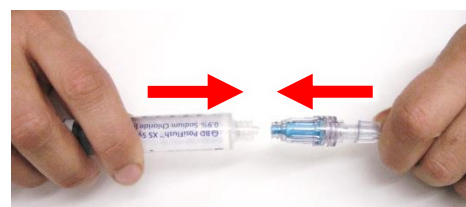


Cleaning with an alcohol swab helps prevent infection in the blood.

Make sure nothing touches the cleaned end.



Make sure nothing touches the end of the syringe.



5. Push the plunger with a 'push/pause motion' until you have flushed with 10mLs of saline.

A push/pause motion allows the saline to flush your CVC and helps prevent it from plugging.

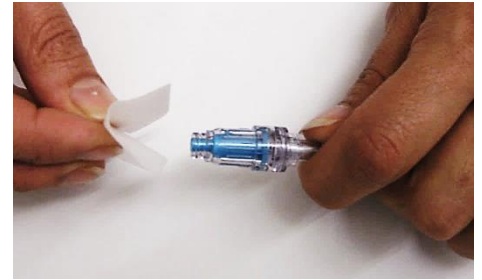
6. To remove the syringe:
  - Firmly hold the Max Zero Connector.
  - Remove the syringe from the Max Zero Connector by twisting counter-clockwise until the syringe separates from the Max Zero Connector.



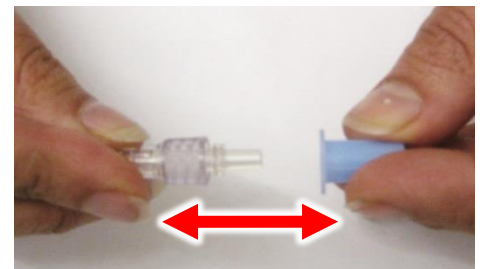
**'Blue stays with you'**

## Starting Your Medication

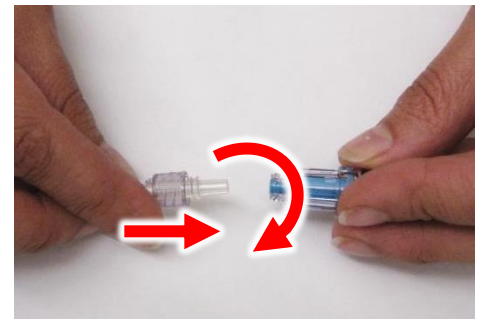
1. To clean the Max Zero Connector on the end of your CVC:
  - Firmly hold the Max Zero Connector with one hand.
  - Clean the Max Zero Connector with an alcohol swab for thirty (30) seconds.
  - Let it dry.
2. Remove the protective cap off the end of the Basic Solution Set.
3. To connect the Basic Solution Set to the Max Zero Connector:
  - Firmly hold the Max Zero Connector.
  - Push and twist the Basic Solution Set clockwise into the centre of the Max Zero Connector.
4. Sit or lie down where you want to be while getting your medication.



Make sure nothing touches the cleaned end.



Make sure nothing touches the open end.



5. **Slowly** open the roller clamp completely on the Basic Solution Set by rolling the roller upward all the way to the top.
6. Watch for drops in the drip chamber.



7. Set the drip rate by adjusting the roller clamp downwards until the drops match your drip rate.

**My drip rate**  
**1 drop every \_\_\_\_ seconds**

8. Check the drip rate at least every 15 minutes.

**Note:** A change in body position may change the drip rate.

If the infusion does not drip or is dripping too slowly check the “Troubleshooting” section for more instructions.

## Changing from Medication Bag to Normal Saline Bag

1. When the medication bag is empty and there is **still fluid in the drip chamber**, close the roller clamp on the Basic Solution Set.

**Note:** If the **drip chamber is empty**, close the roller clamp and proceed to Disconnecting the Basic Solution Set (page 14).



2. Take the medication bag off the pole.
3. Pull the spike out of the empty medication bag.



Make sure nothing touches the end of the spike.

4. Hold the 25 mL normal saline bag above the port with one hand. Remove the protective cover (usually blue) by pulling on the bottom of the protective cover.



Make sure the opening does not touch anything.

5. Insert the spike into the 25 mL normal saline bag port using a push and twisting motion.



6. Hang the 25 mL normal saline bag on the IV pole.



7. **Slowly** open the roller clamp completely on the Basic Solution Set by rolling the roller upward all the way to the top.

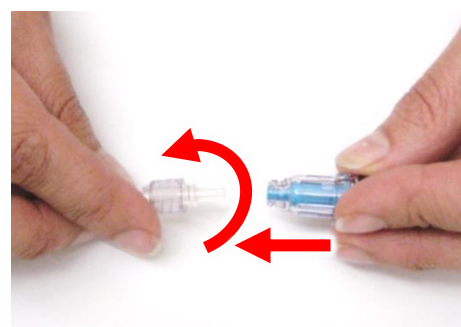
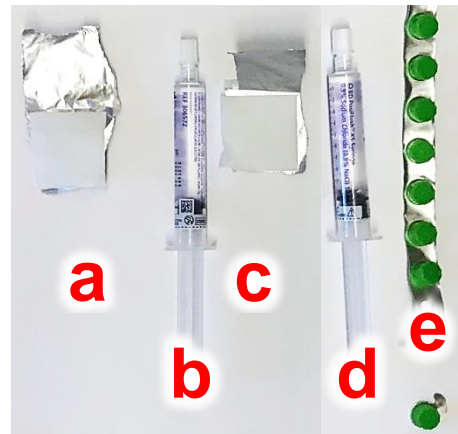


8. When the 25 mL normal saline bag and drip chamber are both empty, close the roller clamp on the Basic Solution Set.

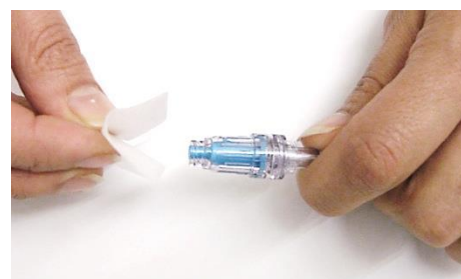


## Disconnecting the Basic Solution Set

1. Prepare these supplies and place out in the order shown:
  - a. alcohol swab opened on three sides
  - b. prepared syringe
  - c. alcohol swab opened on three sides
  - d. prepared syringe
  - e. green curos cap
2. To disconnect the Max Zero Connector from the Basic Solution Set tubing:
  - Firmly hold the Max Zero Connector.
  - Untwist and pull the Basic Solution Set tubing from the Max Zero Connector.
3. To clean the Max Zero Connector on the end of your CVC:
  - Firmly hold the Max Zero Connector with one hand.
  - Clean the Max Zero Connector with an alcohol swab for thirty (30) seconds.
  - Let it dry.



**'Blue stays with you'**



**This helps prevent infection.**

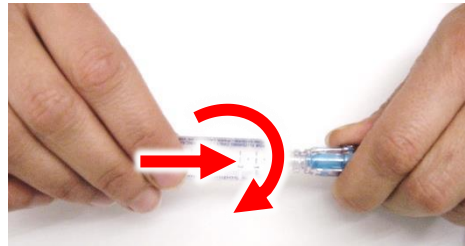
4. Remove the cap from the end of the syringe.



**Make sure nothing touches the end of the syringe.**

5. To connect the syringe to the Max Zero Connector:

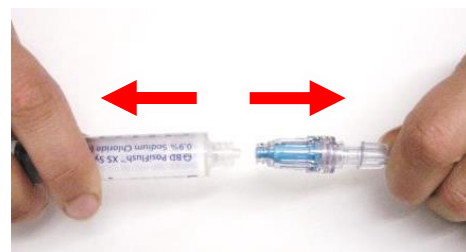
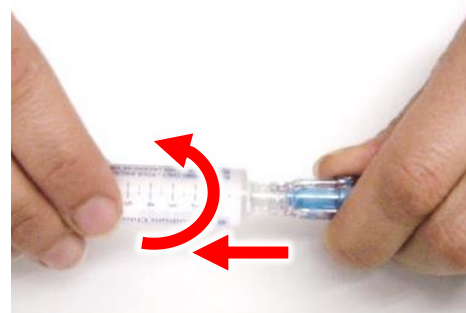
- Firmly hold the Max Zero Connector.
- Gently push and twist the syringe clockwise into the centre of the Max Zero Connector.



7. Push the plunger with a 'push/pause motion' until you have flushed with 10mLs of saline.

A push/pause motion allows the saline to flush your CVC and helps prevent it from plugging.

8. To remove the syringe:
  - Firmly hold the Max Zero Connector.
  - Remove the syringe from the Max Zero Connector by twisting counter-clockwise until the syringe separates from the Max Zero Connector.



**'Blue stays with you'**

9. **Repeat Steps 3 to 7** to flush with the 2<sup>nd</sup> prepared syringe.
10. Peel the cover off the green curos cap.
11. Attach the green curos cap to the Max Zero Connector.
12. Secure your extension set and Max Zero Connector as directed.
13. Throw your used supplies in the garbage.

## Troubleshooting

Problem	What you should do
Fluid or blood is leaking from the insertion site of your CVC	<ul style="list-style-type: none"> <li>• Avoid activities that pull or hit the extension tubing.</li> <li>• Contact a nurse as soon as possible.</li> </ul>
Leaking at the connections	<ul style="list-style-type: none"> <li>• Tighten all of the connections.</li> </ul>
IV bag drip chamber does not drip or drips too slowly	<ul style="list-style-type: none"> <li>• Make sure clamps are open.</li> <li>• Check for kinks in the tubing. Gently straighten and tape tubing in place to keep from kinking.</li> <li>• If you have a PICC, change the position of your arm.</li> <li>• Raise the IV pole higher.</li> <li>• Open and close the roller clamp a few times, or move the clamp up or down the tubing.</li> </ul>
Difficulty with flushing the CVC with normal saline	<ul style="list-style-type: none"> <li>• Make sure there are no kinks in tubing.</li> <li>• Do not force the flush.</li> <li>• Contact a nurse if you cannot flush the CVC.</li> </ul>

### Remember

If you have any questions, write them down so you can ask your nurse.



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This information does not replace the advice given to you by your healthcare provider.

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