

# CARE AT HOME: CENTRAL LINES





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## GOING HOME WITH A CENTRAL LINE

### What is a Central Line?

Your child will be going home with a central line. A central line (also called a **central venous catheter**) is like an intravenous (IV) line. It is much longer than a regular IV and goes all the way up to a vein near the heart. The other end of the central line stays outside of the body, usually in an arm, leg, or on the chest. The central line may have 1 or 2 lumens (ports where medication can be given) depending on your child's needs and medications. The end of each line is covered with an injection cap.

### Why does my child need a central line?

Your provider feels your child will benefit from a central line. Your child can get medicine, fluids, blood, or nutrition through a central line. It also can be used to draw blood in some cases. A central line is helpful to reduce pokes for your child and can be used for however long your child's illness may last.

This manual will go over how to use and care for the line at home.

Topics include:

- ways to prevent infection
- how to flush the central line
- how to give medicine through the central line
- solving problems with the central line
- knowing when and who to call for help

Please note that hospital staff will perform all line care any time your child is in the hospital.

### What supplies will I need?

The supplies you need to help care for your child's central line will be ordered from a medical equipment supply company or home care pharmacy. The first order will be delivered to the hospital or your home. Check with your home care nurse to be sure you have everything you need. You will receive a phone number to call when you need to order supplies in the future.

## TYPES OF CENTRAL LINES

<b>Implanted Port (Port, Port-A-Cath)</b>	<ul style="list-style-type: none"><li>• Inserted into the chest, under the skin on the chest (you can see and feel its raised center).</li><li>• The port connects to a catheter (thin, hollow tube) that is threaded into a large vein near or just inside the heart.</li><li>• The port and the catheter are all under the skin.</li><li>• A needle is inserted into the port for giving medications and drawing labs</li></ul>
<b>Tunneled Central Line (Broviac / Hickman)</b>	<ul style="list-style-type: none"><li>• Inserted into the chest or leg</li><li>• Part of the central line under the skin has a small Dacron™ cuff. Tissue grows onto this cuff area. The cuff acts as an anchor to help prevent movement of the central line. This process takes at least two weeks or more to heal.</li></ul>
<b>Peripherally Inserted Central Catheter (PICC)</b>	<ul style="list-style-type: none"><li>• Inserted into an arm or leg</li><li>• Requires a securement device to hold the line in place.</li></ul>

## PREVENTING INFECTION

Central lines are helpful for taking care of your child, but they can increase the risk of infections when bacteria grow in the catheter and travel to the bloodstream. This is called a Central Line Associated Blood Stream Infection or CLABSI. A CLABSI can be serious and life threatening but is usually treatable with medicine.

It is very important to prevent infection, or the central line may need to be removed. There are things you can do to prevent a central line infection (CLABSI).

### ***What can I do to help prevent infection?***

1. Disinfect your workspace. Clean solid surface work areas with a disinfectant (such as Lysol® or another brand) right before performing central line cares. Clean your hands with an alcohol-based sanitizer or wash with soap and water before putting on clean gloves and caring for your child's central line. This means washing your hands before doing any of the following:
  - Flushing the central line
  - Giving medication
  - Any time you are handling the central line.

When your child is at home, in the clinic, or in the hospital—be sure anyone who touches the central line has washed their hands and is wearing clean gloves.

2. Medications to be infused should be handled carefully to prevent germs, dirt, or bacteria growth, and infection of the central line. Before **each time** you flush or put any medicine into the central line, put on non-sterile gloves and scrub the injection cap for 15 seconds with a new Chlorhexidine gluconate (CHG) wipe, using friction. Allow to dry for 15 seconds or until completely dry. Do not blow on or fan the area.
3. Keep the central line out of the diaper area when changing the diaper. If the central line dressing gets dirty, call the home care nurse so it can be replaced right away. Do not allow your child to put the central line or IV tubing in their mouth.

The central line site and IV tubing may be covered and protected with a clean, laundered sock with the toe part cut off. Your pharmacy or home care company may be able to provide you with a central line cover upon going home.

4. Look at the central line site and look for signs of infection (see Solving Problems).

## BATHING

- Cover central line site and IV tubing with plastic wrap or waterproof dressing while your child bathes or showers. The central line site should not get wet or be placed in the water. If the central line dressing becomes wet, call the home care nurse so it can be replaced right away.
- Do not let the central line drop down into the bath water, as germs from the water may enter the end of the line. Bathing in hot tubs should be avoided.

## SWIMMING

- If your child has a central line, swimming in lakes, rivers pools, hot tubs and oceans is not recommended. There may be circumstances when your provider and you as a parent may allow it, but it should be discussed with your medical team. If you decide to allow swimming, the catheter should be covered with a waterproof dressing and the dressing and injection caps should be changed immediately after coming out of the water.
- The MN Health Department recommends avoiding: swallowing water, putting your head in the water, and warm freshwater and other bodies of water when the water temperature is high, and the water level is low. Discuss swimming with your nurse or provider to address risks and benefits.
- **If you or your child has an implanted port (port, port-a-cath)**, it is most likely safe to go swimming but only after the insertion site is well healed and not accessed. There may be other factors to consider such as low blood counts or skin conditions. It is important to remember that lakes, rivers, oceans, hot tubs and even chlorinated pools have bacteria present, and some bacteria are resistant to chlorine.





# MEDICATION AND INFUSIONS

## FLUSHING THE CENTRAL LINE

The central line must be flushed to prevent blood from clotting (building up) and blocking it. If the central line becomes blocked, medication may be given to attempt to clear the blockage. If unable to clear blockage, the central line may need to be removed.

When IV fluids are running through your child's central line, it is being flushed continuously. When the central line is not being used, it must be flushed at these times:

- Before and after giving medicine(s) or fluids.
- After drawing blood.
- If your child is 28 days old or less, flush the line every 8 hours each day.
- If your child is greater than 28 days old, flush the line every 12 hours each day.

Important notes about flushing:

- **Always use 10mL or larger syringes.** A smaller syringe may push too much pressure into the line and cause it to break.
- Before **each time** you flush or put any medicine into the central line, put on non-sterile gloves and scrub the injection cap for 15 seconds with a new chlorhexidine gluconate (CHG) wipe, using friction. Allow to completely dry. Do not blow on or fan the area.
- Every time you flush, use the "push-and-pause" method: push a little solution, then pause for 1 to 2 seconds, then push a little more, pause, and so on. This method cleans the inside of the catheter.
- If it is difficult to flush the central line or give medicine through it, **do not** force it to flush. Call your provider or home care nurse for help.

1. Clean and disinfect the work area. Wash your hands.
2. Gather supplies:
  - non-sterile gloves
  - CHG or alcohol wipes
  - normal saline syringe (1 for each lumen)
  - heparin (if ordered, 1 for each lumen)
3. Check the normal saline and heparin syringe labels before giving them.
  - Normal saline and heparin syringes are good until the expiration date.
  - Throw it away sooner if you see particles in it, the liquid is cloudy, or if you question its cleanliness in it or if you question its cleanliness.
  - If you throw one away, call the home care pharmacy for a new one.
4. Wash your hands well.
5. Put on non-sterile gloves.
6. Prepare pre-filled normal saline syringe(s). With the tip cap of the syringe on, press the syringe rod forward until it "pops." Remove the cap, being careful not touch the inside of the cap. Point the syringe tip up and gently squirt the air bubble out. Place cap back on the syringe. (Never pull the rod backwards, as the saline could become contaminated).
7. Scrub the injection cap with a CHG wipe for 15 seconds. Allow to completely dry.
8. Attach normal saline syringe tip into the injection cap.
9. Unclamp the central line.
  - **For implanted ports, a blood return should be checked.** To check for a blood return, gently pull back on the rod of the syringe until you see blood in the tubing.
    - i. If there is a blood return, continue to the next step.
    - ii. If there is no blood return, call the home care nurse.
10. Flush with normal saline using the push-and-pause method. When the syringe is empty, remove it from the injection cap.
11. Scrub the injection cap with a new CHG wipe for 15 seconds. Allow to completely dry.

### **Quick Steps to Flush:**

1. Wash your hands and apply gloves.
2. Scrub injection cap. Allow to dry.
3. Flush with normal saline
4. Scrub injection cap Allow to dry.
5. Flush with heparin, if ordered
6. Clamp central line
7. Place a new disinfection cap (if used by your home care agency)

\*If your child needs a medicine, attach the medication syringe and inject the medication as instructed on the label. Repeat steps 6-10 for each additional dose of medication. When all medication has been administered, go to step 12.

12. If heparin is ordered, attach the heparin syringe tip into the injection cap and flush using the push-and-pause method. When the syringe is empty, remove it from the injection cap.
13. Clamp the central line and place a new disinfection cap (if used by your home care agency).
14. If the central line is a double or triple lumen, repeat steps 6-13 for each additional lumen. Use new CHG wipes, normal saline and heparin syringes for each lumen.

## **PREPARING TO GIVE MEDICATIONS**

Medications and infusions can be given many ways. You may learn how to give medicines or fluids. Home care nurses will teach you and help you become comfortable with the steps before you do them yourself.

## **DISPOSAL OF MEDICATION AND SUPPLIES**

Put used syringes and supplies into your regular trash. Syringes with blood or needles must be placed in a special container, called a "sharps container". Most home care pharmacies will send a sharps container to the home, but if you are not provided one, one can be created by using a hard plastic bottle with screw on lid. Label it, "Do Not Recycle - Household Sharps."

Do not overfill the sharps container. Disposal varies depending on the area you live in. Some communities have a household sharps collection program. To find out what you should do, check with your garbage collection company, pharmacy, or clinic.

# CARE AND MAINTENANCE

## DRESSING CHANGES OF A PICC OR TUNNELED (BROVIAC/HICKMAN) CENTRAL LINE

### How often should the dressing be changed?

The dressing over the insertion site should be changed once a week (every 7 days), or any time it becomes loose, dirty, or wet. Your homecare nurse will be responsible for this care.

### How do I change the dressing?

1. Prepare and clean the work area.
2. Wash your hands well.
3. Gather supplies:
  - chlorhexidine (CHG) applicator
  - chlorhexidine (CHG) wipes (2)
  - masks (3)
  - non-sterile gloves
  - saline wipe or normal saline syringe
  - No-string skin prep (Cavalon)<sup>®</sup>
  - sterile drape
  - sterile gauze
  - sterile gloves
  - Sterile transparent dressing (see “types of dressings”)
  - CHG gel pad or Biopatch<sup>®</sup> (if applicable)
4. Put on non-sterile gloves and mask. Masks should be worn by you, your child and helper, if present.
5. Open sterile drape. Only touch the outside edges to keep the middle section sterile.
6. Open supplies onto sterile drape without touching any of the items inside the packages or touching the packages to the sterile drape.
7. Remove the old dressing by starting at the corners, moving towards the insertion site. Remove the old dressing without pulling on or touching the catheter near the insertion site. If there is an adhesive securement device, this should also be removed (see instructions below)
  - If any part of the dressing is sticking to the line, use the normal saline wipe or squirt a small amount of liquid from a normal saline syringe to

loosen the dressing and remove.

8. After the old dressing is removed, take off non-sterile gloves.
9. Wash your hands well.
10. Put on sterile gloves. After sterile gloves are on, only touch supplies on your sterile drape.
11. Check the skin around the insertion site for redness, irritation, swelling, or drainage.
12. Scrub the insertion site with one CHG applicator for 15 seconds, using friction in a back-and-forth pattern, up and down, sideways, and diagonal pattern. Allow skin to completely dry. Do not blow on or fan the area.
  - Some children may be sensitive or have irritation from CHG. If this happens, a different cleaner called *betadine* may be used. Your homecare nurse can help to decide if this is needed for your child.
13. Apply no sting skin prep<sup>®</sup> where the edges of the dressing will be. This protects the skin. Allow to dry.
14. Apply new adhesive securement device (if applicable, see below) Apply ordered dressing. If using a CHG dressing or Biopatch<sup>®</sup>, place CHG gel pad or Biopatch<sup>®</sup> directly over the insertion site of the catheter).

## TYPES OF CENTRAL LINE DRESSINGS

<b>IV Clear*</b>	Can be used for: <ul style="list-style-type: none"> <li>• PICC lines</li> <li>• Tunneled Central Lines</li> <li>• Ports</li> </ul>
<b>IV3000/OpSite</b>	Can be used for: <ul style="list-style-type: none"> <li>• PICC lines</li> <li>• Tunneled Central Lines</li> <li>• Ports</li> </ul>
<b>Tegaderm with CHG Gel Pad*</b>	Can be used for: <ul style="list-style-type: none"> <li>• PICC lines</li> <li>• Tunneled Central Lines</li> </ul>
<b>Tegaderm with CHG Gel Pad for Ports*</b>	Can be used for: <ul style="list-style-type: none"> <li>• Implanted Ports</li> </ul>
<b>Tegaderm HP</b>	Can be used for: <ul style="list-style-type: none"> <li>• PICC lines</li> <li>• Tunneled Central Lines</li> <li>• Ports</li> </ul>

\*Not to be used in patients who have a chlorhexidine (CHG) allergy



## SECUREMENT DEVICES OF THE CENTRAL LINE

All securement devices are used to reduce movement of the PICC line. Securement devices should be completely under the dressing. Adhesive securement devices (Statlock®, Grip-Lok®) should be changed with each dressing change. Subcutaneous (under the skin) securement devices (Securacath®) are left in place the duration of time the PICC line is in your child and does not need to be changed. Your nurse will discuss the best securement devices to use to ensure you and your child are successful at home.

<b>Grip-Lok®</b>	<ul style="list-style-type: none"> <li>• Adhesive securement device</li> <li>• Used for:             <ul style="list-style-type: none"> <li>○ PICC lines</li> <li>○ Tunneled Central Lines</li> </ul> </li> </ul>
<b>StatLock® - PICC Plus Pediatric and StatLock® – PICC Plus®</b>	<ul style="list-style-type: none"> <li>• Adhesive securement device</li> <li>• Used for:             <ul style="list-style-type: none"> <li>○ PICC lines</li> </ul> </li> </ul>
<b>Securacath®</b>	<ul style="list-style-type: none"> <li>• Subcutaneous securement device</li> <li>• Lift device straight up and down during dressing changes. Do not twist the device.</li> <li>• Used for:             <ul style="list-style-type: none"> <li>○ PICC lines</li> </ul> </li> </ul>

## INJECTION CAP CHANGES

### When do I need to change the injection cap?

To prevent infections, change the injection cap as recommended:

\_\_\_ Injection cap will be changed at least once per week but may be changed more frequently based on your home care agency's policy.

Your homecare nurse will be responsible for this care.

### How do I change the injection cap?

1. If able, plan to change the cap at a time when you will be flushing the catheter.
2. Prepare and clean work area.
3. Wash your hands.
4. Gather supplies (may be a kit with all supplies included or you may have to gather individual supplies for each lumen):
  - o cap change kit (if available) (1 for each lumen). Kit includes:
    - CHG or alcohol wipes
    - injection cap
    - masks
    - sterile gauze
    - sterile gloves
    - sterile normal saline syringe
  - o heparin syringe (1 for each lumen)
5. Clamp the catheter (each lumen).
6. Open kit to masks and sterile gloves.
7. Put on a mask. Masks should be worn by you, your child, and helper, if present.
8. Open the sterile kit completely. Only touch the outside edges to keep the middle section sterile.
9. Wash your hands well.
10. Put on sterile gloves. After sterile gloves are on, only touch supplies in your sterile kit.
11. Prepare injection cap. Attach injection cap to sterile normal saline syringe and point them upward to flush the injection cap and remove air in cap. Leave syringe attached to cap and place syringe/cap on sterile kit
12. With your non-dominant hand, use one piece of gauze to pick up the catheter maintaining hand sterility.
13. With your other hand, use a CHG or alcohol wipe to scrub the connection site (where the cap joins the catheter) for 15 seconds, using friction. Allow to completely dry.

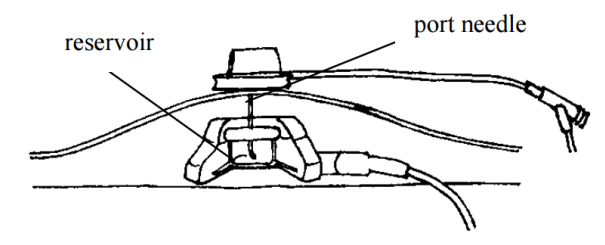
14. With your dominant hand, pick up a new piece of gauze and use it to unscrew the cap from the catheter and remove it. Discard away from sterile supplies.
15. Inspect catheter hub threads (grooves).
  - If **NOT** visibly soiled or blood noted, continue onto step 16 and do NOT scrub the catheter hub threads (grooves).
  - If visibly soiled or blood noted, with a new CHG or alcohol wipe scrub the catheter hub threads (grooves) for 15 seconds, using friction. Allow to completely dry.
16. With dominant hand, pick up sterile normal saline syringe with cap attached. Attach cap to catheter. Leave syringe attached.
17. If double lumen, repeat steps 3-16 for second lumen.
18. Unclamp the catheter.
19. Flush with normal saline using the push-and-pause method. When the syringe is empty, remove it from the injection cap.
20. Scrub injection cap with a CHG or alcohol wipe for 15 seconds then allow to completely dry.
21. If heparin is ordered, attach the heparin syringe tip into the injection cap and flush using the push-and-pause method. When the syringe is empty, remove it from the injection cap.
22. Clamp the catheter.
23. If the catheter is a double lumen, repeat steps 18-22 for the second lumen. Use new CHG or alcohol wipes, normal saline and heparin syringes for each lumen.
24. Put used syringes and supplies into your regular trash. For syringes with blood, use a special container, such as a hard-plastic bottle with a screw-on lid. Label it, "Do Not Recycle - Household Sharps."

# SPECIFIC CARE FOR IMPLANTED PORTS

## APPLYING ANESTHETIC (NUMBING) CREAM

If your child is using anesthetic cream (such as EMLA<sup>®</sup> or ELA-Max<sup>®</sup>) to reduce the discomfort of needle insertion, apply it before accessing the port. Follow the instructions that come with the cream, or see the education sheet, "Anesthetic (numbing) cream."

To apply, feel for the edges of the port with your fingers. Put the correct amount of cream on the area. Cover the cream with Tegaderm<sup>®</sup> or adhesive plastic wrap. Leave the cream in place for at least 30 minutes but no more than 2 hours before port access. The cream will still work for 1 hour after removal.



## ACCESSING THE PORT

1. Prepare and clean the work area
2. Wash your hands well
3. Gather supplies:
  - chlorhexidine gluconate (CHG) applicator
  - heparin syringe
  - sterile normal saline syringe
  - injection cap
  - sterile gloves
  - sterile drape
  - masks (3)
  - non-coring port needle with correct size and length
  - CHG port dressing
  - no sting skin prep
  - sharps container for needles
4. Check the labels of the normal saline and heparin syringes before giving them.
  - Sterile normal saline and heparin syringes are good until the expiration date. Throw it away sooner if you see particles in it, the liquid is cloudy (not clear), or if you question its cleanliness. If you throw one away, call the home care pharmacy for a replacement.
5. If anesthetic cream (such as EMLA<sup>®</sup> or ELE-Max<sup>®</sup>) was used, wipe off with clean cloth or paper towel.

## Preparing the port needle and tubing

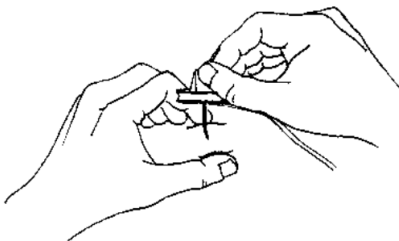
1. Wash your hands.
2. Put on a mask. Masks should be worn by you, your child, and helper, if present.
3. Open sterile drape. Only touch the outside edges to keep the middle section sterile.
4. Open supplies onto sterile drape without touching any of the items inside the packages or touching the packages to the sterile drape.
5. Wash your hands well.
6. Put on sterile gloves. After sterile gloves are on, only touch supplies on your sterile drape.
7. Attach the injection cap into the end of the port needle tubing.
8. Attach the sterile normal saline syringe to the injection cap.
9. Flush the sterile normal saline through the injection cap and tubing to the end of the port needle until a drop appears.
10. Leave the sterile normal saline syringe connected to the injection cap.
11. Clamp the tubing. Place on sterile area.

## Cleaning the port site:

1. Scrub the site with one CHG applicator for 15 seconds, using friction in a back-and-forth pattern, up and down, sideways, and diagonal pattern.
  - o Some children may be sensitive or have irritation from CHG. If this happens, an alternative cleaner called *betadine* may be used. Your homecare nurse can help to decide if this is needed for your child.
2. Allow to completely dry. Do not blow on or fan the area.

## Placing the needle into the port:

1. Hold the port needle by the handle in one hand. Remove the needle cover.
2. Hold the port steady with the other hand by holding the outer edges of the port. Be careful not to touch the area where the needle will go into the port.
3. Hold the needle at a 90-degree angle, aim for the center of the port, and push the needle firmly through the skin and the port until it touches the back of the port chamber.



4. Unclamp the tubing.

5. Pull back on the syringe plunger to check for a blood return before flushing with normal saline.
  - If there is a blood return, flush with the sterile normal saline using the push-and-pause method: push a little solution, then pause for 1 to 2 seconds, then push a little more, pause, and so on.
  - If there is no blood return, and you think you are in the right place, gently try to flush with 2 or 3 ml of sterile normal saline. If you are able to flush easily, pull back on the syringe plunger again to see if there is a blood return. If there is still no blood return, stop. Call the home care nurse.
6. Apply a no sting skin barrier where the edges of the dressing will be. This protects the skin.
7. Put the CHG pad under the port needle.
8. Apply remaining dressing over port needle and tubing.

### **Leaving the needle in place for an infusion**

1. After accessing the port and flushing with normal saline, remove the syringe.
2. Follow directions for IV infusion provided by your home care nurse.
3. After infusion, flush with normal saline and heparin as ordered.
4. If needle remains in place, attach a disinfection cap to the injection cap.

## **DEACCESSING (REMOVING) THE PORT NEEDLE**

### **Removing the port needle:**

1. Wash your hands.
2. Gather supplies:
  - non-sterile gloves
  - CHG wipes
  - Normal saline syringe
  - Heparin syringe
  - Sterile gauze (optional)
  - Adhesive bandage (optional)
3. Put on non-sterile gloves.
4. Scrub the injection cap with a new CHG wipe for 15 seconds and allow to completely dry.
5. Attach normal saline syringe and flush using the push-and-pause method. When the syringe is empty, remove it from the injection cap.
6. Scrub the injection cap with a new CHG wipe for 15 seconds and allow to completely dry.
7. Attach heparin syringe tip into the injection cap and flush using the push-and-pause method. When syringe is empty, remove it from the injection cap

8. Hold the port steady with the fingers of one hand.
9. With your other hand, hold the port needle, and put one finger on the tip of the safety arm.
10. Lift the safety arm straight back until it clicks. This removes the needle from the port and covers the tip of the needle.
11. If bleeding occurs, apply pressure with sterile gauze until it stops.
12. Apply adhesive bandage if needed.
13. Put used syringes and supplies into your regular trash.
14. Put the needle and the tubing into a sharps container or use a special container, such as a hard-plastic bottle with a screw-on lid. Label it "Do Not Recycle - Household Sharps."

## DRESSING CHANGES OF AN IMPLANTED PORT

### How often should the dressing be changed?

The dressing over the insertion site should be changed once a week (every 7 days) with needle changes, or any time it becomes loose, dirty, or wet. Your homecare nurse will be responsible for this care.

### How do I change the dressing?

1. Prepare and clean the work area.
2. Wash your hands well.
3. Gather supplies:
  - chlorhexidine (CHG) applicator
  - chlorhexidine (CHG) wipes (2)
  - masks (3)
  - non-sterile gloves
  - saline wipe or normal saline syringe
  - No-string skin prep (Cavalon)<sup>®</sup>
  - sterile drape
  - sterile gauze
  - sterile gloves
  - Sterile transparent dressing (see "types of dressings")
  - CHG gel pad or Biopatch<sup>®</sup> (if applicable)
4. Put on non-sterile gloves and mask. Masks should be worn by you, your child and helper, if present.

5. Open sterile drape. Only touch the outside edges to keep the middle section sterile.
6. Open supplies onto sterile drape without touching any of the items inside the packages or touching the packages to the sterile drape.
7. Remove the old dressing by starting at the corners, moving towards the insertion site. Remove the old dressing, being careful not to pull out the needle.
  - If any part of the dressing is sticking to the line, use the normal saline wipe or squirt a small amount of liquid from a normal saline syringe to loosen the dressing and remove.
8. After the old dressing is removed, take off non-sterile gloves.
9. Wash your hands well.
10. Put on sterile gloves. After sterile gloves are on, only touch supplies on your sterile drape.
11. Visually check the skin around the insertion site for redness, swelling, or drainage.
12. Scrub the insertion site with one CHG applicator for 15 seconds, using friction in a back-and-forth pattern, up and down, sideways, and diagonal pattern. Allow skin to completely dry. Do not blow on or fan the area.
  - Some children may be sensitive or have irritation from CHG. If this happens, an alternative cleaner called *betadine* may be used. Your homecare nurse can help to decide if this is needed for your child.
13. Apply no sting skin prep where the edges of the dressing will be. This protects the skin. Allow to dry.
14. Apply ordered dressing. If using a CHG dressing or Biopatch®, place CHG gel pad or Biopatch® around the port needle and directly over the insertion site.



# Emergency Care

Problem	Possible cause	What to do
<p><b>Fever (100.4 or greater), chills</b></p> <p><b>Tenderness/pain, redness, or drainage at the catheter site</b></p> <p><b>Swollen arm</b></p> <p><b>Skin color changes</b></p>	<ul style="list-style-type: none"> <li>• Infection</li> </ul>	<ul style="list-style-type: none"> <li>• Check your child’s temperature.</li> <li>• Call your homecare nurse or the provider <b>right away</b>.</li> </ul>
<p><b>Trouble flushing the central line</b></p> <p><b>Unable to give medicines or fluid into the central line</b></p>	<ul style="list-style-type: none"> <li>• central line may be clamped</li> <li>• central line or tubing may be kinked</li> </ul>	<ul style="list-style-type: none"> <li>• Check to see if the central line or IV Tubing is clamped (if clamp is present). If yes, unclamp.</li> <li>• Check for a kink in the central line or IV tubing. Remove the kink.</li> <li>• If the catheter or tubing is not kinked or clamped, <b>do not</b> force the solution into the tube. Call the home care nurse to report the problem.</li> </ul>
<p><b>Fluid leaking from the central line</b></p> <p>(You may see leaking fluid when flushing the line, wetness under the dressing, areas of bulging or bubbling on the central line, or swelling in the area of the central line)</p>	<ul style="list-style-type: none"> <li>• Injection cap not screwed on tightly</li> <li>• A hole in the catheter</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten the injection cap.</li> <li>• If you see a leak in the catheter, clamp it between the damaged area and the skin. (see instructions for central line emergency kit)</li> <li>• Call the home care nurse, clinic, or provider.</li> </ul>
<p><b>Missing injection cap</b></p>	<ul style="list-style-type: none"> <li>• Injection cap became loose and fell off</li> </ul>	<ul style="list-style-type: none"> <li>• Immediately clamp the line, if open.</li> <li>• Scrub the catheter hub threads with a CHG wipe for 15 seconds and allow to completely dry before putting on a new injection cap.</li> </ul>

		<ul style="list-style-type: none"> <li>• Call the home care nurse, clinic, or provider.</li> </ul>
<b>Skin redness or a rash where the tape or dressing is</b>	<ul style="list-style-type: none"> <li>• Sensitivity to tape or dressing</li> </ul>	<ul style="list-style-type: none"> <li>• Call the home care nurse, clinic, or provider.</li> </ul>
<b>Dressing is loose/lifted/soiled/wet</b>	<ul style="list-style-type: none"> <li>• Child is active or sweaty</li> </ul>	<ul style="list-style-type: none"> <li>• Reinforce lifting edges with tape or transparent dressing.</li> <li>• Call your homecare nurse as soon as you are able. It is important to keep the dressing clean and intact to prevent infection.</li> </ul>
<b>PICC line accidentally gets pulled completely out</b>	<ul style="list-style-type: none"> <li>• Child pulls central line out</li> </ul>	<ul style="list-style-type: none"> <li>• Place a sterile gauze pad on the site and press firmly until the bleeding stops ( about 2 to 5 minutes).</li> <li>• Apply Vaseline® or an antibiotic ointment over the insertion site and cover with a gauze and sterile transparent dressing (Tegaderm®). Dressing should stay in place for 24 hours or until you see your healthcare provider.</li> <li>• Save the central line and call your provider or home care nurse.</li> </ul>
<b>PICC line gets pulled out, but does not come all the way out.</b>	<ul style="list-style-type: none"> <li>• Dressing was loose</li> <li>• Line is accidentally pulled</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure the area of insertion is still clean and dry (if this happens during a dressing change, continue to the dressing change and cover with the ordered dressing.</li> <li>• Do NOT attempt to reinsert the catheter back into your child.</li> <li>• Call your homecare nurse <i>immediately</i> for further instructions.</li> </ul>

<b>Implanted Port does NOT have a blood return.</b>	<ul style="list-style-type: none"><li>• Buildup inside of the catheter</li></ul>	<ul style="list-style-type: none"><li>• Call your home care nurse.</li></ul>
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## Central Line Emergency Kit – Keep this paperwork with Central Line Emergency Kit

Your child will be going home with a central line. While uncommon, you may find yourself in a situation where your child's central line is broken.

Central lines that are broken may show the following:

- Visible tubing weakness
- A hole in the catheter
- Fluid leaking from the catheter or fluid present under the dressing.
- Bubbling of the catheter during flushing

A central line emergency kit should be given to you at the hospital prior to discharge. Take this emergency kit with you everywhere your child goes. Check the kit before you leave home and replace used items when you return home so it is always ready to go.

Supplies include:

- adhesive bandages (Band-Aid™)
- chlorhexidine (CHG) wipes
- clamp
- injection cap
- normal saline syringe
- sterile gauze
- Sterile transparent dressing (Tegaderm®)
- Tape

### **My child's line appears to be broken—What should I do?**

Using the clamp, clamp the catheter between the insertion site and the area of concern. If the area of concern is under the dressing, leave the dressing on and contact your home care nurse *immediately*.

Once clamp is in place, wrap CHG wipe around area of concern.

Cover the CHG wipe with a sterile gauze. Use tape to secure gauze in place.

Contact your home care nurse, clinic, or doctor.

### **The injection cap is missing—What should I do?**

1. Immediately clamp the line, if open.
2. Scrub the catheter hub threads with a CHG wipe for 15 seconds and allow to completely dry before putting on a new injection cap.
3. Contact your home care nurse, clinic, or doctor.

## Who should I contact with questions about my child's central line?

If you have any questions regarding care of your child's central line, contact:

Home care nurse \_\_\_\_\_

Supply company \_\_\_\_\_

Home care pharmacy \_\_\_\_\_

Doctor or Provider \_\_\_\_\_

The following information can be helpful to share with your provider should there be a problem with the central line.

### My Child's Central Line Information:

Type: \_\_\_\_\_

Brand: \_\_\_\_\_

Model number: \_\_\_\_\_

Brand of catheter: \_\_\_\_\_

Power Injectable:

- Yes
- No

Size of catheter: \_\_\_\_\_

Number of Lumens:

- Single
- Double
- Triple

Blood draws can be from central line:

- Yes
- No

### My Child's Dressing Information:

Dressing used:

- IV3000
- IV Clear
- CHG Tegaderm
- CHG Tegaderm for Ports
- Teagderm HP
- Biopatch

Securement Used:

- GripLok
- Statlock
- Securacath

Cleaning solution used:

- Chlorhexidine gluconate (CHG)
- Betadine & Normal Saline

### \*PICC Line Only\*

Arm or Leg circumference: \_\_\_\_\_cm

Measurement of central line from  
insertion to hub: \_\_\_\_\_cm

Total length of central line: \_\_\_\_\_cm

### \*Implanted Port Only\*

Needle Gauge: \_\_\_\_\_

Needle Length: \_\_\_\_\_

## CHECKLIST FOR CARE AT HOME WITH A CENTRAL LINE

A nurse has met with me to review:

- Flushing/Locking the central Line
  - How to flush the central line with normal saline
  - How to lock the central line with heparin
- Central Line Emergency Kit
  - How/when to use the emergency central line kit
  - I have received my child's emergency care kit and emergency care instructions from the bedside/vascular access nurse.
- CLABSI Prevention Measures
  - I understand why I need to have clean hands and wear gloves before touching my child's central line.
  - I understand that I should use a cleaned/sanitized work area in my house when caring for my child's central line after leaving the hospital.
  - I know how to protect my child's central line when bathing.
  - I understand signs of an infection/CLABSI (central line associated bloodstream infection)
  - I know what to do if my child has signs of an infection/CLABSI
- Problem Solving
  - I understand how to problem solve common issues at home
  - I know who to call if I or my child is having problems with their central line.
- Plan for Home
  - While a nurse will complete my dressing changes, I know when my child's next dressing change is.  
Date of next Dressing Change: \_\_\_\_\_
  - I have met with my child's homecare company and have scheduled my child's first appointment.  
Date of first homecare appointment: \_\_\_\_\_
  - I have a plan with my child's school or daycare in regard to caring for my child's central line.
  - I understand when and how my child's central line will be removed.