

Broviac Care

Central Lines

A central line is a catheter, or soft flexible tube, that is placed into a large blood vessel near the center of the body. Central lines are used to give fluids, medications, blood products, nutrition and to draw blood for labs.

A Broviac is a type of central line that allows for long-term access to blood. There is an entry site where the catheter enters the blood vessel and an exit site where the central line comes out of the body. The Broviac has a cuff under the skin near the exit site. The cuff is a thick fabric ring that circles the catheter line. As healing takes place over the first few weeks, skin will grow around the cuff to help hold the line in place. This also helps to keep germs from entering into, or around, the line.

How a Central Line is Placed

The central line is placed in the operating room while the child is under general anesthesia. There will be a small cut in the neck for the entry site. It is usually covered with a steri-strip. Stitches may be placed at the exit site to help hold the catheter in place and is covered with a sterile dressing.

Signs of Central Line Problems

If you notice any sign of infection or catheter problem, call the doctor immediately:

- * Fever of 38° C (100.5° F) or greater.
- * Chills.
- * Redness, drainage, warmth, swelling, or pain around the catheter site.
- * The central line is hard to flush or you cannot flush it at all.
- * Swelling of the face, neck, chest or arm on the side where your catheter is inserted.

A list of Emergency Cares for central line problems is at the end of this booklet.

Caring for the Central Line

You will care for the central line every day at home. Before you leave the hospital we will be teaching you how to do the following cares:

- * **Dressing Change**
- * **Heparin Flush**
- * **Cap Change**
- * **Emergency Cares**

Choose a clean and quiet place in your home to do Broviac Cares, usually the bedroom. Prepare a clean work surface area and cover it with paper towels. Always wash your hands with an anti-bacterial soap, scrub with friction for 30 seconds, and dry with paper towel before cares.

Remember: Careful hand washing is the #1 way to fight infection!

Always keep the central line dry. Protect the line during bathing. It can be covered with saran wrap or a plastic bag to keep water from getting to the central line.

Broviac Dressing Change:

Weekly, and whenever it gets wet, dirty, or is coming off.

Steps:

1. Wash your hands.
2. Gather supplies: Chloraprep, a Biopatch, a clear occlusive (sealed) dressing.
3. Open the supplies and keep them in their sterile package.
4. Remove old dressing: Lift edges of dressing first and pull slowly, work your way into the center. As you near the center, hold the Broviac in place, being careful that it doesn't get pulled. The Biopatch and clear dressing will lift off together.
5. Check exit site for signs of infection (such as redness, pus, or swelling).
6. Wash your hands with soap and water or use antiseptic hand gel.
7. Clean site with Chloraprep: Squeeze the sides until the medicine comes into the sponge and scrub the area the dressing will cover in a back and forth motion for 30 seconds.
8. Let air dry completely 2 minutes; do not blow on the site to dry it quicker.
9. Place the Biopatch with the writing side up. Make sure the edges of the slit come together and touch after placement of the Biopatch around the catheter.
10. Secure the Broviac by looping it around the Biopatch (do not cross the catheter over the Biopatch). Looping the Broviac will help prevent it from being pulled out.
11. Place the clear dressing to hold the Biopatch and Broviac in place.
12. **Never use scissors or sharp objects around the central line.**

Flushing the Broviac Line:

Daily, at least two hours before bedtime (when not in use).

Flush **each lumen** of the Broviac **once a day with 3 mL's of heparin** (10 units/mL)

Steps:

1. Wash your hands.
2. Gather Supplies: 1 alcohol pad, pre-filled heparin syringe, tape.
3. Always check heparin concentration (10 units/mL) and expiration date on the syringe before using. Daily heparin dose is 30 units/3mL in each lumen.
4. Open the supplies and lay them on the clean work surface area.
5. Prepare syringe by expelling the air out, replace cap on syringe.
6. Clean the end of the Broviac cap with the alcohol pad by rubbing with friction for 10 seconds. Allow the cap to dry completely for 10 seconds.
7. Pick up the heparin syringe and attach it to the end of the cap by pushing it in and twisting. **Avoid touching the cap and tip of syringe.**
8. Unclamp the line.
9. Slowly push the heparin in, and re-clamp when there is still 0.5 mL of heparin left in the syringe. In other words, do not empty the syringe completely.
10. Remove the syringe and apply tape to cover cap on end of the Broviac.

Changing the Cap:

Weekly, usually on Mondays

Steps:

1. Wash hands
2. Gather supplies: 2 alcohol pads, a pre-filled heparin syringe, a Broviac cap, tape and hand gel.
3. Open supplies. Check the heparin concentration (10 units/mL) and expiration date.
4. Prepare Broviac cap: Carefully open the blue cap package and connect the heparin syringe. With the cap pointed upward push a small amount of heparin to fill the cap. This gets the air out of the cap. Loosen the protective end piece, and lay the cap back in its package.
5. Make sure line is clamped.
6. With one alcohol pad, clean junction between blue cap and Broviac line for 10 seconds and allow to air dry for 10 seconds.
7. Remove old cap.
8. Use second alcohol pad to clean open end of the central line for 10 seconds and allow to air dry for 10 seconds.
9. Connect the new cap by first removing the protective cap and then twisting the cap on.
10. Unclamp the Broviac and slowly push the heparin in. Re-clamp when there is still 0.5 mL heparin left in the syringe. Disconnect the syringe and apply tape to secure the cap onto the end of the line.

Emergency Cares:

1. Sudden chest, neck or shoulder pain, cough or difficulty breathing – make sure Broviac line is clamped. Lie your child down on the left side with head down and feet elevated. **Then call 911.**
2. Fever or Chills – notify doctor **immediately**, day or night, **then go to ED.**
3. Catheter is cut, torn, or leaking – clamp the catheter above damaged area. Clean the damaged area with alcohol for 10 seconds. Cover the hole or crack with sterile gauze and tape. Notify doctor **immediately**, day or night.
4. Catheter is pulled out – use sterile gauze and apply pressure to the exit site for 5-10 minutes. Notify doctor **immediately**, day or night. If bleeding continues, maintain pressure dressing and reinforce with more sterile gauze.
5. Redness, drainage, swelling, or pain at exit site. Notify doctor as soon as possible.
6. Catheter will not flush – do not use force. Check that it is unclamped. Check to see if tubing is bent or twisted. If it still won't flush, there may be a blood clot inside. Notify doctor as soon as possible.
7. The cuff is exposed or the line appears longer – the line may have been tugged on and moved. Finish the dressing change and tape the catheter securely to your child. Notify doctor as soon as possible.