Pediatric “Port”
An Implantable Vascular Access Device

This handout will explain what a “port” is and how to care for it once you are home. If you have any questions, please ask. Our staff is here to help you.

What is a port?

A port is a small rigid disc about the size of a half dollar. The center is raised and designed to receive a needle (see drawing). You can feel the raised center under the skin.

The septum is made of self-sealing silicone. This means it can be punctured hundreds of times with a special needle. There is a plate under the septum, so the needle cannot go all the way through the port.

Attached to the base of the port is a narrow flexible tube. This is called a catheter. It is inserted into a vein where the medicine is to go.

What is the purpose of the port?

The port may be used to draw blood for tests and to inject medicines into the bloodstream. It may also be used for infusions when large amounts of fluids are needed, such as blood transfusions, IV antibiotics, IV chemotherapy, or IV nutrition. It is not used for CT scans.

How is the port placed?

Your child’s port will be inserted during a brief operation. The port is most often placed under the skin just below the left or right collarbone. In some cases it may be placed in the abdomen, between the breasts, under the arm on the side of the chest, or in the forearm. The surgeon will create a small pocket for the port and then insert the catheter into a vein. A few stitches will be needed to complete the operation. The incision will be closed with absorbable stitches and a special tape that will dry and fall off when healed.

Children: Most children will receive general anesthesia. This is done in the operating room. Most children will not need to stay overnight if coming for port placement only. The port can be used the same day that it is placed. Your child’s doctor and nurses can answer any questions you may have.
How Do I Care For My Child’s Infusaport®?

How you access and flush your child’s port
Most children have their ports accessed by a health care provider. Parents of small children are often taught how to access their child’s port. An accessed port is a port that has a needle in it.

Supplies
- Masks for you, your child and anyone helping hold your child during the access.
- ChloraPrep®
- Sterile 4 x 4 gauze
- Sterile gloves (2 sets)
- Hand sanitizer
- Sterile non-coring Huber needle (20G 3/4 inch-common size)
- Pre-drawn normal saline and heparin flushes
- One tube of LMX® cream (optional)
- Needleless connector (MicroClave® Clear)
- 2x2 Alcohol swabs

When to access and flush your child’s port
Have your child’s port flushed once a month with 20 mL of normal saline followed by 5 mL of monthly heparin (100 u/ml) to prevent clots from forming.

Note: Two concentrations of heparin are used.
- Daily heparin is used after medicine infusions and is 10u/ml
- Monthly heparin is used before pulling the needle and is 100u/ml

If your child receives infusions at home
- Your child’s port must be flushed after each use (at least once per day).
- Use 10 mL normal saline followed by 5 mL of the daily heparin (10 u/ml).
- If you plan to remove the needle or not flush for more than 24 hours, flush the port with 10 mL of normal saline followed by the 5 mL of the monthly heparin (100 u/ml).
- Change your child’s needle at least once per week.
- Change the needleless (MicroClave® Clear) connector once or twice per week (every 3 days) or if it is contaminated with blood.
- Cover the port dressing while your child showers so it does not get wet

Flushing the child’s port may be done by your UW clinic, local health care provider, or the parent. If your child’s doctor or nurse flushes the port, please give him or her a copy of the flushing protocol.
Other supplies (if needle is to be left in place)
- Steri-strips or sterile tape
- One transparent adhesive dressing
- Sterile 2x2 gauze (optional)
- Biopatch® (unless contraindicated, chlorhexidine allergy or < 2mo of age)

If LMX® will be used, rub a small amount of cream into skin for about 30 seconds. Add a “bubble” of LMX® on top of this area of skin then apply a transparent adhesive dressing for 20-30 minutes to numb the skin.

1. Wash your hands with antibacterial soap or alcohol hand gel for 30 seconds.
2. Open the sterile glove package to set up the sterile field.
3. Peel open the normal saline and heparin flush packages. Lay them down next to the sterile field. Open 2 large sterile 4 x 4 gauze squares and drop onto the sterile field. Open the ChloraPrep® and drop onto the sterile field.
4. Open the Huber needle and needleless connector and drop them onto the sterile field. Be careful not to touch any part of the Huber needle. **Always access your Infusaport® with a Huber needle.** Using other needles may damage your port and cause it to leak.
5. Put on your sterile gloves. Twist the needleless connector onto the Huber needle extension set.
6. Remove LMX dressing, or old dressing (if applicable). Remove 1st pair of sterile gloves, sanitize your hands, apply second pair of sterile gloves.
7. Pinch the wings on the applicator to release the ChloraPrep® into the sponge pad. Do not touch your child’s skin with your fingers. Gently press the sponge against the skin over the port until you see the liquid on the skin. Clean the port site and 2-3 inches of skin around the site for one minute using back and forth friction.
8. Allow the area to air dry. Do not blot, wave at, or blow dry the area. While it is drying, do not allow your or your child’s clothing to come in contact with the place you just cleaned, or you will have to use another applicator and start over.
9. Be sure to keep all supplies sterile. The outsides of the saline and heparin flush syringes are clean, not sterile.
10. Pick up the saline syringe with a sterile 4 x 4 and twist it on the end of the needleless connector. Push the saline through until you see it drip out the other end. Lay the set down on your sterile field. If a family member is present, they can help you push the saline through. Keep the syringe attached to the tubing.

11. Maintain the sterility of the needle and tubing. By holding the colored wings and syringe in your dominant hand, remove the cap on the needle with the other hand. Feel for the port while your dominant hand guides the needle into the septum or port at a 90° angle. Press firmly until the needle touches the back wall of the port. Apply skin prep around the port needle where the dressing will be in contact with your child’s skin (optional). Remember to not use skin prep immediately around the needle because this is where the Biopatch will contact the skin. Place the transparent dressing over the top of the port to secure the needle in place.

If you are just doing your child’s monthly flush, skip the dressing and go right to step 13.

12. Slowly pull back the plunger until you see blood in the tubing.

13. Make sure you check for air in the flushes and remove all air before using.

14. Push down on the plunger and flush the port with 10 mL of normal saline. Clamp, attach, and flush an additional 10 mL of normal saline. Small children with ports only need to use 10 mL of normal saline.

15. Clamp and attach 5 mL syringe of appropriate heparinized saline. Unclamp, flush, and clamp. Leave the syringe attached if you remove the needle.
   - **100 u/mL** heparin for **monthly** flush or flushes over 24 hours
   - **10 u/mL** heparin for **daily** flush

16. To remove the needle: While securing the port with two fingers of one hand, pull out the needle and dispose of it in the Sharps Box. Safety Huber needles are often used in the hospital, but are not needed at home if you are doing your child’s port access. If you need instructions on Safety Huber needles, contact your child’s nurse.

17. Cover the port dressing while in the shower. Change the dressing any time it becomes wet or loose. A Biopatch® (antiseptic foam patch) is for ports. If the needle is to remain in for a week and if there is room for the Biopatch®, it may be placed around the needle, foam-side down on the skin, blue shiny-side up. If the Biopatch® is used under the dressing, the dressing can stay on all week, as long as it stays dry and secure.
Precautions

When your child’s port is not accessed, he/she may safely swim, exercise, and engage in activity as usual.

- Avoid any direct blow to port site
- Avoid heavy contact sports (i.e., football, hockey, etc.); if a heavy contact sport is desired, consult your child’s doctor or nurse.
- You child may try less aggressive sports (i.e., volleyball, basketball, etc.)
- Do not leave the port site exposed during contact sports
- Take precautions to protect the port site (i.e., padding, wearing a heavy shirt, etc.)

Be aware of the signs of infection listed below. Call your child’s doctor if any of these symptoms occur.

- Site becomes red, hot or tender to the touch.
- Temperature above 100°F.
- Excess swelling or bleeding of the skin.
- Drainage from the site.
- Pain or discomfort at the site.
- Difficulty flushing the port.

Your child’s doctor will watch the site for infection and draw blood cultures through the port for testing.

Most of the time, ports work well for lab draws and IVs; once in a while, ports stop working. When this happens, your child’s nurse will very likely be able to get it working again by placing a small enzyme in the port needle.

If you have any questions or concerns please call:________________________ Clinic at (608)______________________.

After 4:00 PM and Weekends, call the UWHC Emergency Room at (608) 262-2398.
Infusaport® Supplies
For monthly flushes

- **One** Huber needle (common size = 20G x 3/4 inch, there are other sizes and you may have one of those.)
- Needleless (MicroClave® Clear) connector
- 2x2 Alcohol swabs
- ChloraPrep®
- **Two** sterile 4 x 4 gauze pads
- **One** package sterile gloves (common size = 6 1/2)
- **One** Sharps® container
- Pre-filled syringes of 10 mL normal saline and heparin (100 u/mL) 5 mL

If you receive antibiotic infusions at home, call your child’s doctor or nurse about extra supplies. UW Central Supply can only distribute a 3-day supply. Your child’s UW doctor can provide you with a prescription that can be filled by your family via the preferred provider.