



IV: Implanted Port – Care at Home

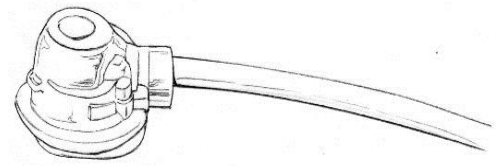
The implanted port (which may also be called an Implantofix® or Port-A-Cath®) is a device and catheter (tube) that is surgically placed under the skin in your child's body (Picture 1). It lessens the need to start an IV for every treatment. With this device your child can receive medicines or fluids directly into one of the large veins and into the blood stream. A non-coring needle (Picture 2) must be used with the device because it has a special tip that will not damage the rubber septum (top of the port) of the implanted port.

Aseptic (germ-free) technique

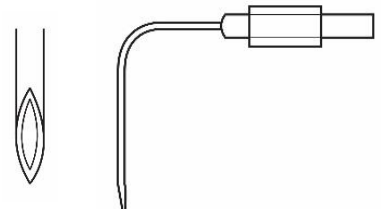
Aseptic (ay SEP tik) technique is a careful and precise way to handle sterile (germ-free) products in a clean place to prevent infection. These steps must be followed when you care for the implanted port.

- **Good hand washing is very important. Washing hands correctly and often is the best way to prevent the spread of germs.**

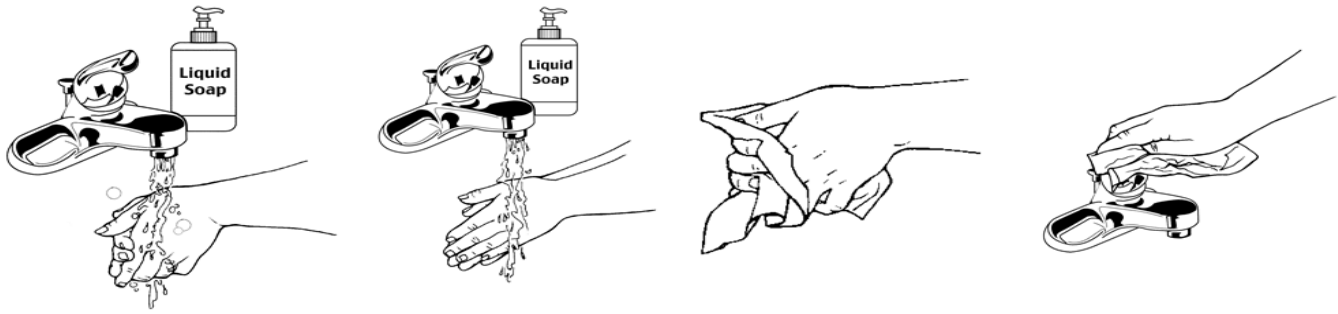
Before handling the port, you must wash your hands. Scrub your hands and wrists with soap and warm water for at least 15 seconds. Clean under your fingernails. Dry your hands with a clean paper towel. Turn off the faucets with the paper towel (Picture 3). Instead of soap and water, you may use a waterless, alcohol-based product and a clean paper towel. Turn off the faucets with the paper towel (Picture 3).



Picture 1 Only a blunt cannula will remain in the port during use.



Picture 2 Non-coring needle



Picture 3 Good hand washing is very important!

- After you have washed your hands, **do not touch anything except the catheter and IV supplies**. If you touch anything else, re-wash your hands. Remember, good hand washing is the best way to prevent the spread of germs.

How to keep supplies clean

- Do not touch any part of the equipment that should be kept STERILE.
- Throw away any sterile supplies that accidentally touch anything (fingers, clothes, non-sterile equipment). Use a new, sterile supply.
- Keep IV medicines in a clean area in the refrigerator or freezer (as instructed by the home health agency).
- Do not handle anything other than the IV supplies until after the medicine is started. If you do, wash and dry your hands again before handling supplies.
- Do not let any supplies touch the floor or an obviously dirty area.
- Store IV supplies in a clean area and away from children and pets.

EMLA[®] cream

EMLA[®] cream may be used at the port site to numb the area before the needle is inserted. This must be ordered by your physician. Squeeze out half of a small tube (2.5 grams) directly over the port. **Do not spread the cream over the area.** Cover the cream with a transparent dressing so that it stays directly over the top of the port. The EMLA[®] cream is most effective after being on the skin for 2 to 4 hours. Remove the transparent dressing and wipe off the cream when you are ready to access the port with the non-coring needle.

Preparing syringes with medicine

You will be giving the following IV medicines at home:

- Saline Heparin Other _____

Pre-filled syringes

You may get medicine syringes that are already filled by the pharmacy. Before using them, check to make sure it is the correct medicine and right amount, and that a sterile cap is covering the syringe cannula.

1. Wash your hands.
2. Remove the syringe from the package. **Do not use if the sterile cap is off the syringe.**
3. Check to be sure that the syringe has the correct amount of medicine to be given.

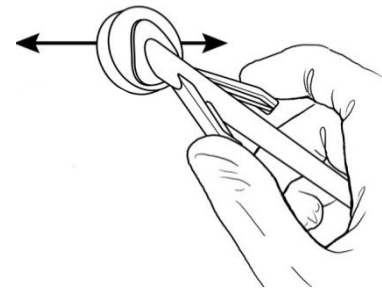
Filling syringes with IV medicine

1. Gather the supplies:
 Syringe Vial of medicine Alcohol swabs
2. Wash your hands.
3. Open all packages and keep the contents germ-free.
4. Remove the cap from the medicine vial.
5. Clean the top of the vial vigorously with an alcohol swab **for 15 seconds**. Allow top to dry completely.
6. Attach the vial access cannula to the end of the syringe. Do not touch the open ends of the syringe or cannula.
7. Pull back the plunger of the syringe so that it is filled with air. The amount of air should be equal to the amount of medicine that will be drawn out of the vial.
8. Remove the sterile cap from the vial, access cannula and push the tip of the cannula into the medicine vial. Inject the air into the vial.
9. With the cannula still in the vial, turn the vial upside-down. Draw the correct amount of medicine out of the vial.
10. Remove the cannula from the vial. Carefully recap the cannula.
11. With the sterile cap in place, squirt out any air or extra medicine in the syringe.
12. Throw away the vial.

How to use the implanted port

1. Gather the supplies:
 - IV medicine syringe
 - Alcohol swabs
 - Needleless connector (cap)
 - Heparin filled syringe
 - Non-coring needle
 - 2 saline filled syringes
 - CVC dressing kit with large transparent dressing

2. Wash your hands.
3. Open all packages and keep the contents sterile (germ-free). Do not touch the non-coring needle without wearing sterile gloves.
4. Put the needleless connector (cap) on the end of the non-coring needle. Touch only the hub of the non-coring needle.
5. Clean the top of the needleless connector vigorously with an alcohol swab for 15 seconds. Allow it to dry completely.
6. Attach the saline syringe to the needleless connector on the non-coring needle by resting the threads of the syringe on the threads of the needleless connector. Tip the syringe up and twist them together. Flush the needle until the saline drips out. The needle must remain sterile. Leave the syringe connected to the needle.
7. Put on the sterile gloves.
8. Take out the ChloroPrep® sponge applicator. Hold the sponge downward over the exit site and squeeze the applicator wings until you feel a pop. Squeeze the wings 2 or 3 times to allow the ChloroPrep solution to soak the sponge.
9. Gently apply the ChloroPrep, using a back-and-forth friction scrub for 30 seconds over the entire port area (Picture 4).
10. Do not wipe off the excess ChloroPrep.
11. Wait for 30 seconds for the skin to dry completely.
12. Find the septum (top of the port) by feeling the area with your fingertips.
13. Hold the outer edges of the port with your thumb and forefinger.
14. Pick up the non-coring needle with your other hand. Puncture the skin and septum. Push the needle straight down until the needle reaches the back of the port. Remove the safety device if you need to. Draw back on the plunger of the syringe to make sure there is a blood return. Flush the port with 10 mL of saline.
15. Place a piece of transparent dressing over the needle.
16. Give the medicine or fluid that has been prescribed.
17. Attach a new saline syringe needle to the needleless connector by resting the threads of the syringe on the threads of the needleless connector. Tip the syringe up and twist them together. Flush with 5-10mL of saline.
18. Attach the Heparin syringe and inject the Heparin solution into the port.



Picture 4 Using the ChloroPrep® applicator.

19. Remove the syringe from the needleless connector and then clamp the catheter. Always firmly hold the needleless connector and not the needle tubing to prevent accidentally loosening the connector.
20. Throw away syringes in a “sharps” container.

To remove the needle from the port

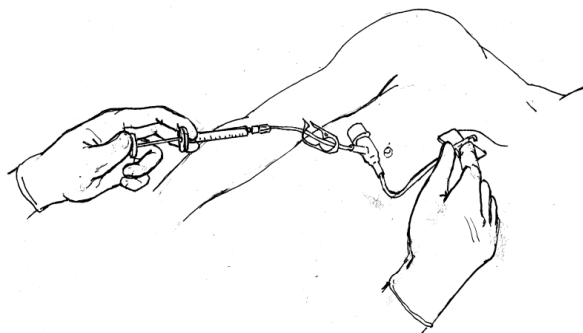
The needle must be removed after 7 days. A new needle may be inserted anytime afterward. To remove the needle:

- Wash and dry your hands.
- Flush the port with Heparin as described below and on page 6.
- Loosen the dressing over the needle.
- Carefully stabilize the port with one hand while pulling the needle out of the port with the other hand.
- Throw away the needle in a “sharps” container.

Note: The port does not need a dressing when a needle is not in place. It does not need to be flushed again with Heparin until the port is used again, or once a month.

Flushing the port with heparin

When your child's port is not being used, blood may collect and clot in the port. Heparin is a medicine that keeps blood from clotting inside the port. The amount of heparin is small. It will prevent clotting, without harming your child.



Picture 5 Flushing the implanted port with Heparin.

To dispose of used syringes, needles and cannulas

CAUTION: Proper disposal of needles and syringes is very important.

1. **Do not recap used needles. Do not bend or break off the needle. Do not remove the needle from the syringe.** You might stick yourself.
2. Use the needle disposal “sharps” container provided by Nationwide Children’s Hospital or the home care agency.
3. Put used needles and syringes into the needle disposal container immediately after use. Be sure to put the needle end of the syringe into the box first (Picture 5).

4. Do not let the container get too full.
5. When the container is two-thirds full, give it to the home care agency or Nationwide Children's Hospital for proper disposal.

CAUTION: Be sure to keep syringes and supplies out of the reach of children and others who might misuse them.

Emergency care

Clotted catheter

If resistance is met when flushing the port, STOP! Do not try to force the solution into the port. Push down on the needle to make sure it is in all the way. If that does not work, throw away that needle and start again with a new one. If you still meet resistance, there may be a clot in the port. This should be treated as soon as possible. Call your child's doctor, or take your child to the Nationwide Children's Hospital Emergency Department.

Infiltration

It is possible for the non-coring needle to come out of the port while fluids are infusing. If you notice swelling over the port during the infusion, stop the pump. Push the needle into the port. Flush the port with heparin, then remove the needle and dressing until the swelling goes down. Call your Home Care agency nurse, or your child's doctor.

Taking your child's temperature

A fever is often a sign of infection. You should check your child's temperature each day. If you will be taking the temperature by mouth, make sure your child has not had anything to eat or drink in the last 30 minutes because this may change the temperature reading. Call your child's doctor if the temperature is 100.4°F or higher.

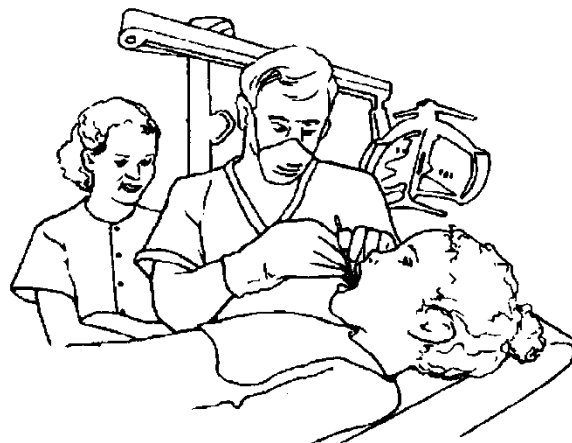
Signs of infection

You should suspect an infection of the implanted port if there is:

- Redness, swelling, or warmth
- Drainage - yellow or green
- Tenderness or pain

You should suspect an infection in the blood stream (systemic infection) if there is either of the following:

- Temperature of 100.4°F or higher
- Increased irritability (child is more fussy than usual)



Picture 6 Be sure to tell the dentist that your child has an implanted port for a central line catheter.

If you suspect an infection, contact your child's doctor immediately.

Dental care

Dental care is important for everyone's well-being. When you make a dental appointment for your child, tell the dentist that your child has an implanted port for a central line catheter (Picture 6).

Going to school or child care

Your child may go to school or child care with an implanted port. He or she should be able to do most of the same activities as other children. If you have a question about an activity, sport, or physical education classes, call your child's doctor. The teacher, school nurse, and caregiver will also need this information to care for your child. They should be told to contact you if there are any problems with the catheter or dressing on the catheter. Ask the school or child care center to call your child's doctor for more information.

Important phone numbers

If you have any questions, be sure to call us.

Doctors Office: _____ Phone: _____

Home Health Agency: _____ Phone: _____

Clinic: _____ Phone: _____