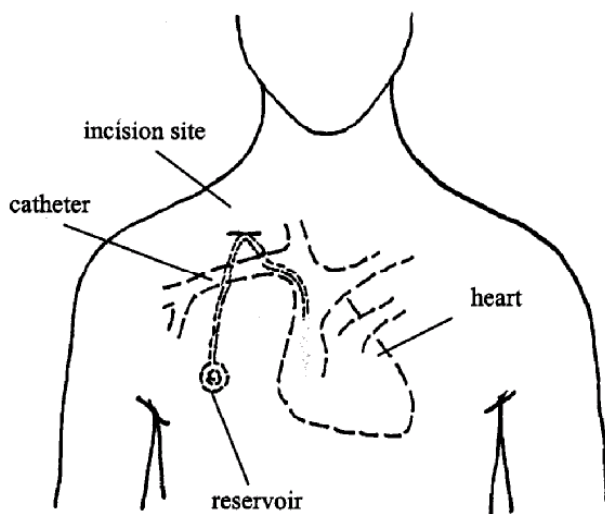


## Implanted port: Care at home

### What is an implanted port?

An implanted port is a device placed under the skin, usually on the upper chest, for accessing a vein. The port makes it easier to give IV medicines or fluids and take blood samples.

The implanted port has 2 parts: the catheter and the reservoir. The catheter is a long, hollow tube inserted into a large vein that goes to the heart. The reservoir is the part that is accessed (a needle is put into it) for treatments. Some implanted ports have two catheters and two reservoirs, so two medicines or fluids can be given at the same time.



### How should I prepare my child?

Use simple words to explain why the port is needed and what to expect. How much detail you give will depend on the age of your child, and the degree of anxiety about the procedure. If you need help, ask a nurse or Child Life staff member.

Explain procedures before they are done, especially what your child will see, hear, and feel. Tell your child what is expected ahead of time, such as, "Your job is to hold still while I flush the port." This will help make care at home easier for both of you.

### How is the port put in?

During surgery, the surgeon inserts the tip of the catheter under the chest skin and tunnels it into the superior vena cava, a large vein that goes to the heart. The reservoir is placed under the skin.

There will be two small incisions on the chest after surgery, one where the catheter was inserted into the vein, and one where the reservoir was placed under the skin. There will be a quarter-sized bump under the skin where the implanted port is. Your child may have soreness or discomfort at the incision sites. Pain medicine will be given as needed.

### How should I care for my child?

Caring for a child with an implanted port may be a little scary at first. The nurses will take care of the port and give the medicines while your child is in the hospital.

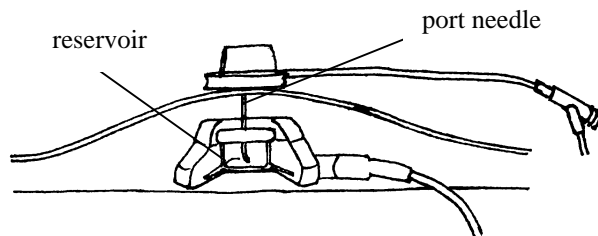
As your child improves and is able to be at home, you will be taught how to flush the port to help prevent blood from clotting and blocking it. If it becomes blocked, it may have to be removed.

How often the port needs to be flushed depends on whether a constant infusion is being given. Your child needs the port flushed:

- once a month
- every day
- after infusions

You may also be taught how to give medicines or fluids. Home care nurses will teach you and help you become comfortable with the procedures before you do them yourself.

Only non-coring needles should be used with the implanted port. These are special needles that do not leave a hole in the reservoir of the port (see picture below). This allows the port to be accessed many times without damage. Your home infusion company will provide these special needles.



### Important notes about syringes

**You must use 10-ml or larger syringes.** A smaller syringe may push too much pressure into the catheter and cause it to burst.

Filled syringes have an air bubble in them. Before using, squirt the air bubble out.

Every time you flush the port with normal saline or heparin, 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. Your home care nurse will show you how to do it.

### Applying anesthetic cream

If you are using anesthetic cream (such as EMLA® or ELA-Max®) to reduce the discomfort of the needle, apply it 1 to 4 hours before accessing the port. Follow the instructions that come with the cream, or see the education sheet, “Anesthetic cream.” To find the area to apply it, feel for the edges of the port with your fingers.

### Preventing infection

It is very important to prevent infection, which might require removal of the port. The nurse will show you how to keep your supplies sterile, so no germs will enter the port and cause an infection.

**Cleanliness is a must!** Each time you give a medicine or flush the port, follow these steps:

1. Prepare a clean work area by cleaning a solid surface with household cleanser (such as Lysol® or another brand) and lay a clean towel on it.
2. Clean your hands well, using one of the following methods:
  - Use an alcohol hand sanitizer (Purell® or another brand) according to directions.
  - If hands are dirty or sanitizer is not available, wash your hands with antibacterial soap for **at least 15 seconds**, rubbing all surfaces briskly,

including under fingernails. Use a paper towel or clean hand towel to dry your hands, and then use the towel to turn off the faucet.

3. Before **each time** you flush or put any medicine into the IV tubing, scrub the injection cap for 30 seconds with a fresh chlorhexidine wipe, using friction. Let it dry. Do not fan or blow on it.

### Accessing the port

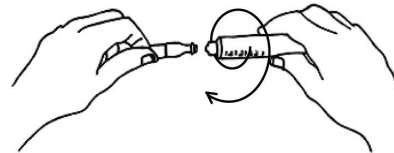
1. Prepare the work surface (see page 2).
2. Clean your hands (see page 2).
3. Gather supplies:
  - chlorhexidine sepps or applicator
  - chlorhexidine wipes
  - heparin syringe (1)
  - injection cap
  - IV solution or medicine
  - non-coring port needle with tubing, size \_\_\_\_\_
  - normal saline syringes (2)
  - sharps container for needles:
    - a special container for this purpose
    - a hard plastic bottle (such as bleach or detergent) with a screw-on lid. Label it, "Do Not Recycle – Household Sharps."

transparent dressing, if you will leave the port needle in place
4. Check the labels of the normal saline and heparin syringes, and any other medicines or fluids before giving them. Make sure they are the right medicines and the heparin is in the right strength.
  - A medicine is good until the expiration date. Throw it away sooner if you see sediment in it or if you question its cleanliness.

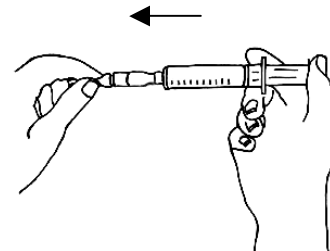
5. If you don't have pre-filled syringes, draw up the correct amount into separate syringes. (See the education sheet, "IV medicines: Preparing at home.")

### Prepare the port needle and tubing

1. Put supplies in order of use on the work surface. Open packages without touching anything inside.
2. Pick up the injection cap, keeping the threaded end sterile—do not let it touch anything. Screw the cap into the end of the port needle tubing.
3. Scrub the injection cap with a chlorhexidine wipe and let it dry.
4. Remove the tip cover from a normal saline syringe.
5. Twist the syringe tip into the injection cap.



6. Flush the solution through the tubing to the end of the port needle until a drop appears.



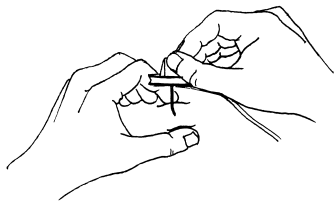
7. Clamp the tubing.
8. Leave the syringe in the injection cap.

### Clean the port site

1. Wipe off the anesthetic cream, if used, with a clean cloth.
2. Prepare the sepps or applicator:
  - If you are using a sepps, hold it between your thumb and fingers. Firmly squeeze the sepps until it cracks and solution flows into cotton applicator. Do not touch the cotton.
  - If you are using an applicator, pinch the wings on the applicator. The ampule inside will break and release the solution. Wet the sponge by pressing it against the inside of the package several times.
3. Scrub the site with one chlorhexidine sepps or applicator for 30 seconds, using friction in a back and forth pattern: up and down, sideways, and diagonally.
4. Let it dry completely (about 30 seconds). Do not blow on or fan the area.

### Access the port

1. Hold the port needle by the handle in one hand. Remove the needle cover.
2. Put the fingers of your other hand around the outer edges of the port to hold it steady. 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 bottom of the port chamber.



4. Remove the handle from the needle and throw it away.
5. Unclamp the tubing.
6. Pull back on the syringe plunger to make sure you get a blood return before injecting any medicines or fluids.
  - **If there is a blood return**, flush with the saline. Continue with your planned procedure.
  - **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 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.

### Giving medicines and flushing the implanted port

1. If you are not giving medicines at this time, go to step 6.
2. If you are giving medicines, connect and give it as instructed by your home care nurse. If you are giving an infusion, go to “Leaving the needle in place for an infusion”, below).
3. After giving the medicine or infusion, disconnect it from the injection cap on the port needle.
4. Scrub the injection cap with a chlorhexidine wipe and let it dry.
5. Flush the port with normal saline, using the push-and-pause method. Remove the syringe.
6. Scrub the injection cap with a chlorhexidine wipe and let it dry.
7. Flush the port with heparin, using the push-and-pause method. Remove the syringe.

8. Clamp the IV tubing.

**Quick reference:**

1. Flush with normal saline.
2. Give the medicine or fluid.
3. Flush with normal saline.
4. Flush with heparin.

### Removing the needle

1. Hold the port steady with the fingers of one hand.
2. With your other hand, hold the port needle, and put one finger on the tip of the safety arm.
3. Lift the safety arm straight up until it clicks. This removes the needle from the port and covers the tip of the needle.
4. If bleeding occurs, apply pressure with sterile gauze until it stops.
5. Apply a bandage if needed.

### Leaving the needle in place for an infusion

1. After accessing the port and flushing with saline, remove the normal saline syringe.
2. Follow directions for IV infusion provided by your home care nurse.
3. Cover the needle and tubing with a transparent dressing.
4. Your child can shower or bathe in shallow water, if you cover the dressing with plastic and tape all the edges down with waterproof tape. If the tape or transparent dressing becomes wet, replace it right away. **Do not let the IV tubing drop down into the bath water,**

as germs from the water may enter the catheter.

5. Change the port needle every 7 days.

### Cleaning up

Put the needle and the tubing into the sharps container. Put used syringes into your regular trash, unless blood is in them. If they are soiled with blood, use a sharps container.

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.

### Who and when should I call for help?

#### Call home care if:

- difficult to flush or give medicine
- no blood return from the port

#### Call the clinic if:

- temperature higher than 101.5° F (38.6° C)
- redness, swelling, drainage, or pain at the incision site
- redness, swelling, drainage, or pain at the port site

### Questions?

If you have any questions, please call:

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

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

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

Doctor: \_\_\_\_\_