When intravenous (IV) therapy is needed for a long time, your child’s doctor may use an implanted port. The implanted port is a device that is placed under the skin. It lessens the need to start an IV for every treatment. After the implanted port is in place, IV medicines and treatments can be given directly into the blood stream through the port.

The implanted port has 2 main parts: the catheter and the port (Picture 1). The catheter is a soft, narrow plastic tube that is put into a vein inside the body. The port is a small chamber disk with a silicone rubber top called a “septum.” The septum covers the top of the port and reseals itself after it is punctured by a special needle. The port is surgically placed under the skin, usually on the chest.

Once the catheter is in the vein, a port can be used to:

- Give medicines.
- Give blood and blood products.
- Give parenteral (IV) nutrition.
- Draw blood for some lab tests. Certain lab tests cannot use blood from an implanted port.
**Benefits of the implanted port**

From a child's point of view, the best part about having the implanted port is that it reduces the number of needle sticks. However, finger sticks or other needle sticks may still be needed for some blood tests.

Other benefits are:

- It can remain in the vein for a long time.
- There is less discomfort, since the IV therapy can be given more easily.
- No dressings or bandages are needed after the skin has healed when a needle is not in place.
- It prevents the "burning" feeling sometimes felt with medicine given by other IV methods.
- Activity is not restricted with the implanted port if there is no needle in place. Bathing, exercise, swimming and playing are all possible once the incision has healed.

**Inserting the implanted port**

The implanted port is inserted in Interventional Radiology while the child is asleep. Two small cuts are made: one to locate the vein and a second to make a "pocket" under the skin for the port. After the catheter is placed into the vein, the port is inserted under the skin into the pocket. The port is stitched into place and both incisions are closed with a glue called Dermabond®. When the incision heals, you will see only the shape of the septum under the skin.

**After the implanted port is inserted in the vein:**

- There will be 2 small dressings that will stay on for 48 hours.
- The implanted port may be used as soon as the radiologist gives permission (usually 7 to 14 days after placement).
- For a day or two after the implanted port is inserted, the skin may be tender around the 2 incisions. The soreness will disappear within a few days.
- The body tissue will heal around the implanted port in about 3 weeks to hold the port in place.
How the implanted port works

- When IV therapy is needed, a special non-coring needle is inserted through the skin into the port. Because the needle goes through the skin, a slight pricking sensation is felt. EMLA® cream may be applied to numb the skin before the needle is inserted.
- A small dressing is used to cover and protect the needle while it is in.
- The IV fluid or medicine flows through the needle, into the port, through the catheter and into the blood stream.
- When the treatment is over, or at least every 7 days, the needle is removed and replaced if needed.
- If the dressing begins to leak or becomes loose, the needle and dressing need to be changed.

Possible complications

Several complications are possible when using the Implanted Port. These are rare but can occur. They include:

- Infection at the port injection site or in the blood.
- Blood clots in the catheter or in the vein.
- Movement of the implanted port and irritation to the vein.
- Swelling and tenderness caused by the needle slipping out of the port.
- Trouble finding the port to insert the needle.

Care of the implanted port

Because the implanted port is completely under the skin, it requires very little care.

Skin care

- Wait 24 hours before showering or swimming after the needle is removed to allow the needle hole to heal. This lessens the risk of infection around the port body.
- Wash the skin at the injection site between injections or infusions when the needle is not in place.
- A bandage is not needed when a needle is not in place.
- Check the site daily for any redness, swelling, warmth or other signs of infection.
Flushing the catheter

- A medicine called heparin is used to prevent blood from clotting inside the catheter. After an injection into the port and before the needle is removed, the catheter is "flushed" with a small amount of heparin.

- The implanted port must be flushed after each treatment and flushed at least once every month by a registered nurse or other trained person.

Removal of the implanted port

The implanted port will be removed when the IV therapy is completed. This is done in Interventional Radiology under general anesthesia.

When to call the doctor

Call your child's doctor at (phone) _______________ or _______________

if any of the following occurs:

- If you notice any redness, tenderness, bruising, swelling, warmth or drainage at or near the port injection site.

- For a fever (100.4 or higher), aches or "flu-like" symptoms.

- If there is swelling, tingling or pain at or near the port injection site or in the arm closest to the port.

If you have any questions, be sure to ask your child’s doctor or nurse or call ______________.