

Name of Child: _____ Date: _____

How to Use a Port-a-Cath

Why does my child need a Port-a-Cath?

When a child is diagnosed with a serious condition, parents often feel out of control because they don't understand everything that is happening. However, once they learn about the illness and master home care skills, parents get their sense of control back.

Perhaps you, too, are feeling out of control and overwhelmed because you need to learn about Port-a-Cath (**implanted port**) care. This information may seem like too much to handle right now, but don't give up. Like other families, you will also be able to take care of your child's Port-a-Cath.

Your child's doctor and surgeon decide if a Port-a-Cath is right for your child. They will discuss their thoughts with you and your child.

Why is a Port-a-Cath necessary? Some children with medical problems need frequent IV (**intravenous**) treatments. To avoid all those needle sticks, the doctor may decide to insert a Port-a-Cath.

Port-a-Caths may be used to give IV medicines, blood transfusions, fluids, and nourishment, or draw blood samples. A Port-a-Cath may also make it possible to do some of these things at home.

Many families find that the Port-a-Cath helps make their child's medical treatment a little easier. Your child's nurses will review this with you. They will answer your questions. If you have any questions, ask the members of your child's health care team.

Putting in the Port-a-Cath

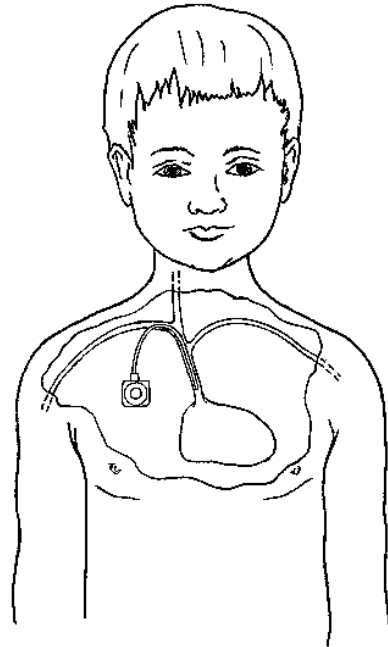
A child with a Port-a-Cath avoids some painful IV pokes. The Port-a-Cath is a safe way to keep tubing (a catheter) in a large vein. This way, whenever you have to get medicines, blood transfusions, fluids, or nourishment in, or take blood samples out, you don't have to start an IV (intravenous catheter).

The Port-a-Cath is placed in the child under general or local anesthesia in the operating room by the surgeon. The Port-a-Cath is not painful to the child when it is in place. When the Port-a-Cath is in, you cannot see it. You just see a small lump, like a bottle cap under the skin.

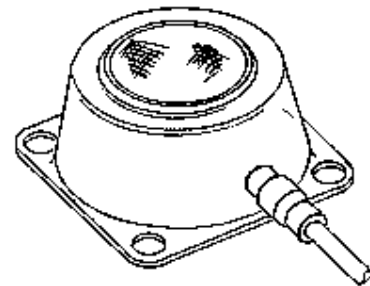
The main part of the Port-a-Cath is called the port or reservoir. It may be made of stainless steel, titanium, or plastic. The surgeon puts it in, under the skin, usually in the upper chest.

The port is connected to a tube (catheter). The surgeon threads this tube through a large vein. A large vein can handle medicines and fluids which may bother a small vein.

An x-ray is taken after the surgery to make sure that the catheter is in the right position. The skin over the Port-a-Cath will be covered with gauze or small pieces of tape (Steri-Strips).



When the Port-a-Cath is in, you cannot see it. You just see a small lump, like a bottle cap under the skin.



The port or reservoir may be made of stainless steel, titanium, or plastic.

There may be a little blood draining from the spot.

For a day or two after the Port-a-Cath is put in, your child may feel a bit sore or uncomfortable. Ask your doctor what you can give your child to treat the soreness.

The Port-a-Cath can stay in place a long time. However, each child is different. The doctor will decide how long the catheter must stay in place.

Until you, your family, and your child get used to the Port-a-Cath, talk about how you feel about it.

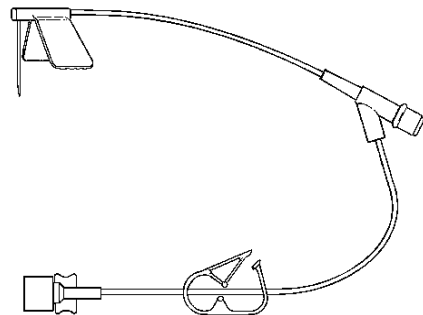
Using the Port-A-Cath

To use a Port-a-Cath to put fluids in or take blood samples out, it needs to be accessed. The Port-a-Cath is accessed through a special needle that comes bent at a 90-degree angle. Only nurses, doctors, and families with special training can put this needle in the port.

One to three hours before the needle is put in, the skin over the Port-a-Cath is usually numbed with EMLA or LMX cream.

To learn more about this cream, ask your nurse or doctor for the handout:

- EMLA Cream: Making Needle Sticks
Easier (157) (Check when done.)



The Port-a-Cath is accessed through a special needle that comes bent at a 90-degree angle.

Get your child ready for port care

If your child is young, you may need someone to help you when you care for the port. Ask this person to help the child stay still during port care. It is important that the child's hands stay away from the port while you do port care. This person can talk to the child, sing, or play word games like naming colors, counting things, or saying the alphabet.

Older children can listen to music or watch TV during port care.

When children get used to port care, they may ask to help. Before helping, your child needs to wash his or her hands, or use a hand sanitizer that has more than 60% alcohol. A young child can help by pushing the saline or heparin. Always watch what your child does when helping you.

Teens may want to care for their own ports. If your teen asks to learn port care, tell your child's nurse or doctor. If they think your child is ready, they will teach your child, and make sure your child understands how to do it right.

How to access the port

What you need:

- EMLA or L-M-X 4 cream
- a watch or clock with a second hand
- 1 waterproof pad
- antibacterial scrub
- 2 alcohol pads
- two 20mL syringes and saline or four 10mL syringes prefilled with saline
- one 10mL syringe and heparin or one 10mL syringes prefilled with heparin
- medicine to be given
- 1 injection cap
- 1 non-coring needle
- 1 chlorhexidine applicator
- 1 pair of sterile gloves
- two 2 inch gauze squares
- needle box

Never use a syringe smaller than 10cc. The pressure from a smaller syringe could break the port.

How to do it:

1. Before you do each step, tell your child what you are going to do. Make sure your child knows what will happen next.

2. Look at your child's port and your child for signs of possible problems.

Signs of infection can be:

- drainage or oozing, such as pus
- swelling
- tenderness, soreness
- warmth
- pain
- redness
- a temperature above 101° F by mouth
(check with your health care provider)
- odor from the exit site
- chills

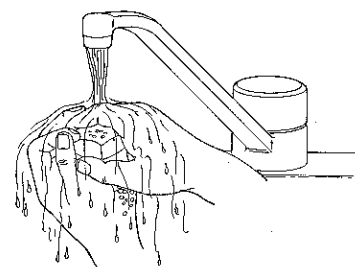


If you see any of these signs, call your child's nurse or doctor right away.

3. Put EMLA or L-M-X 4 cream on the skin over the port, 30 to 60 minutes before you access the port.

4. Clean the work area with soap and water. Let it dry. Cover it with the waterproof pad.

5. If the heparin is refrigerated, take it out of the refrigerator about ten (10) minutes before you use it. Let it warm to room temperature. Cold heparin will not harm your child, but he or she may feel the heparin's coldness when it is injected.



**Wash your hands
for 30 to 45 seconds.**

6. Wash your hands with the antimicrobial scrub for 30

to 45 seconds. Wash the entire surface of your hands. Wash under your fingernails, the backs of your hands, your wrists and between your fingers. Rinse completely and dry your hands with a clean towel or paper towel.

7. As you open the supplies, touch only the packaging. Keep everything sterile. **Sterile** means there are no germs at all. Once you open a package, it is not sterile. Even though you washed your hands, they are not sterile.

8. Get your child's medicine ready to give. Make sure you have the right amount in of the right medicine, and it is the right time to give it.

yes no If your saline and heparin are in syringes already, skip to step 23.

yes no To draw saline into a syringe:

9. Wipe the top of the saline bottle with an alcohol pad.

10. Put a needle or needle substitute on a 20 mL syringe.

11. Pull back on the plunger to fill the syringe with 20 mL of air.

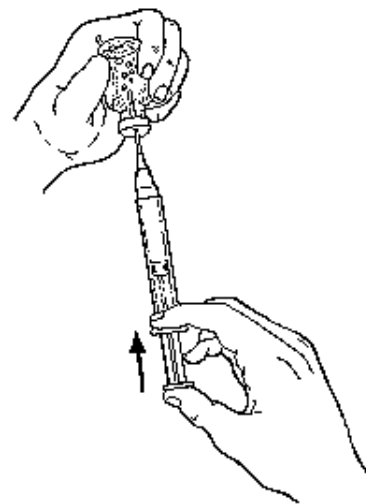
12. Put the needle into the bottle top, and push all the air into the bottle.

13. Pull back on the plunger to fill the syringe with 20 mL of saline.

14. Remove air bubbles from the syringe.

- point the syringe up
- gently tap the side of the syringe with your finger
- large air bubbles will rise toward the needle
- press the plunger until a small amount of saline squirts out with the air bubbles

The small air bubbles that stay attached to the inside of the syringe after you tap are safe to leave in.



**Push in
Steps 12 and 19**

15. Carefully recap the needle.

Only recap clean, unused needles. Never recap a needle that has been used in a port, other line, or person.

yes no To draw heparin into a syringe:

16. Wipe the top of the heparin bottle with an alcohol pad.

17. Put a needle on a 10 mL syringe.

18. Pull back on the plunger to fill the syringe with 5 mL of air.

19. Put the needle into the bottle top, and push all the air into the bottle.

20. Pull back on the plunger to fill the syringe with 5 mL of heparin.

21. Remove air bubbles from the syringe.

- point the syringe up
- gently tap the side of the syringe with your finger
- large air bubbles will rise toward the needle
- press the plunger until a small amount of heparin squirts out with the air bubbles

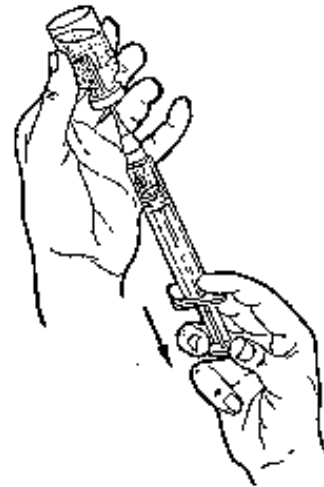
The small air bubbles that stay attached to the inside of the syringe after you tap are safe to leave in.

22. Carefully recap the needle.

Only recap clean, unused needles. Never recap a needle that has been used in a port, other line, or person.

23. yes no If you use pre-filled syringes, remove air bubbles from each syringe before flushing.

24. Open the package of the non-coring needle.

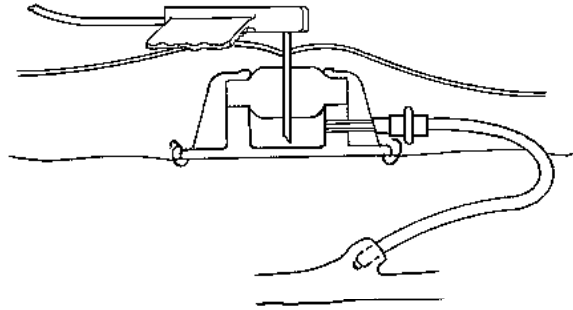


**Pull back
Steps 11, 13,
18, and 20**

25. Take the injection cap out of the package, and put it down on your work area.
26. Pick up the end of the port needle tubing and put it down outside of the package.
27. Take the covers off the injection cap and the tubing. Do not touch the ends.
28. Screw the injection cap on the end of the tubing.
29. Wipe the top of the injection cap with an alcohol pad.
30. Connect the saline syringe to the injection cap.
31. Push the saline into the tubing until drops of saline come out of the end of the needle. Leave the syringe connected to the injection cap.
32. Have your child lie down.
33. Use a gauze square to wipe the EMLA or L-M-X 4 cream off the port site.
34. Take a chlorhexidine applicator out of its package. Hold the applicator down over the port site, and squeeze the applicator.
35. Scrub back and forth the port site with the pad on the applicator for 30 seconds.
36. Let the port site dry for 30 seconds.
37. Put on the sterile gloves.
38. Touch the wings of the port needle, and pick it up.
39. Take the cover off the needle.
40. With your other hand, find the edges of the port. Use two fingers to hold the port in place.

41. Put the needle into the port. Press it through the skin until the needle touches the bottom of the port.

42. Pull back on the plunger of the syringe until blood comes into the tubing. This lets you know the needle is in the right place.



Press the needle in until it touches the bottom of the port.

43. Push 20 mL of the saline into the port to flush the line.

- If the tube does not flush easily, make sure the clamp is open.
- Do not use force to flush.
- Check the needle placement. Is the needle in far enough? Is the needle in the center?
- If you still cannot flush the tube call your child's nurse or doctor.

424. Take the syringe off the injection cap. Hold the cap so it does not touch anything.

45. Give the medicine through the injection cap.

46. After you give the medicine, put the saline syringe on the injection cap.

47. Push 20cc of saline into the port to flush the line with the push pause method. The push pause method helps rinse the inside of the port well.

48. Take the syringe off the injection cap. Hold the cap so it does not touch anything.

49. Put the syringe with 10 mL of heparin on the injection cap.

50a. Push the 5 mL of heparin into the port to flush the line.

50b. As you keep pressure on the syringe, close the clamp on the port needle tubing.

51.

yes no If you are going to take out the needle, use two fingers to hold the port in place. Use your other hand to pull the needle straight out.

yes no Put a gauze square on the site, and press until the bleeding stops.

yes no If you are going to leave the needle in the port, close the clamp. Put a dressing on the port. (See next section of this booklet for directions.)

52. Thank your child for helping.

53. Put all the needles in the needle box. Do not put caps on used needles. Keep the needle box out of the reach of children.

54. Take off the sterile gloves, and throw them out with the other trash.

55. If you are not using heparin that is predrawn, refrigerate the rest of the heparin. If you just opened a new bottle of heparin and plan to use it again, write the date and time the bottle was opened on the label.

56. Fold the waterproof pad and put it away until you need to use it again.

How to put a dressing on the port

If you give medicine through the port often, you may want to leave the needle in the port. If you leave the needle in, make sure the clamp is closed when you are not using the port.

A dressing is only needed on the port if the needle is left in.

The dressing needs to be changed whenever it gets wet, dirty, or loose.

Your child should not swim or take a shower when the needle is in. You can give your child a tub bath while the needle is in only if you can keep the dressing dry.

You must change the needle at least once a week if the dressing is transparent. If using a gauze dressing, change the needle every 48 hours.

What you need:

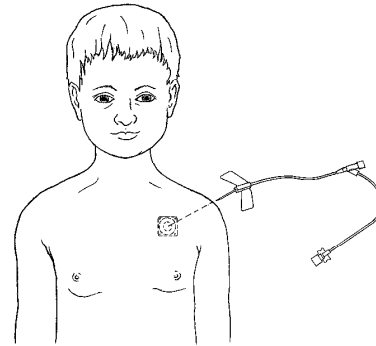
- 1 transparent dressing (Tegaderm or Sorbaview)

How to do it:

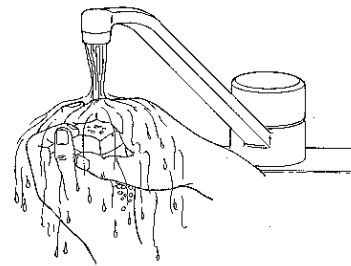
1. Wash your hands with the antimicrobial scrub for 30 to 45 seconds. Wash the entire surface of your hands. Wash under your fingernails, the backs of your hands, your wrists and between your fingers. Rinse completely and dry your hands with a clean towel.

2. Place the transparent dressing over the port and needle.

3. Coil the tubing and tape it on the skin. This will keep it from getting pulled. Ask your nurse or doctor to show you how to tape the tubing.



If you leave the needle in, make sure the clamp is closed when you are not using the port.



Wash your hands for 30 to 45 seconds.

Living with a Port-a-Cath

Supplies

Your nurse or doctor will help you order your child's supplies for Port-a-Cath care. Order only the supplies you need, but keep a few extras at home. Each time you access the port, you need a new needle. The needle must be changed at least once a week. Dressings are only needed on the port if the needle is left in. The dressing needs to be changed whenever it gets wet, dirty, or loose. If you are not using the port, it needs to be flushed at least once a month.

You will need these things to care for the port:

- EMLA or L-M-X 4 cream
- medicine
- antibacterial scrub
- alcohol pads
- two 20mL syringes and saline or four 10mL syringes prefilled with saline
- one 10mL syringe and heparin or one 10mL syringes prefilled with heparin
- injection cap
- non-coring needle
- chlorhexidine applicator
- sterile gloves
- 2 inch gauze squares
- 1 transparent dressing (Tegaderm)
- waterproof pad
- needle box

Order supplies through: _____

To order call: _____

Order at least _____ days before the supplies are needed.

- Supplies will be delivered Supplies need to be picked up

Telephone number of your child's health care team: _____

Keep your supplies in a clean, dry place. A kitchen cabinet or closet shelf that is too high for children and pets to reach would be good places.

Play

After the port is put in and the skin over the port is healed, your child may return to normal activities. Help your child live as normally as possible. The port is just a part of your child's life.

The port needs to be kept safe. Ask your child's doctor before you let your child play a contact sport.

Other people may not know your child has a port. Your child may want to show it to family and friends.



After the skin over the port is healed, your child may return to normal activities.

Water

After the the skin over the port is healed, the surgeon will tell you when you can get the skin wet.

When there is no needle in the port, your child can take a bath, shower, or swim. You may wash the skin as usual. A dressing is only put over the port when a needle is in it.

Your child should not swim or take a shower when the needle is in. You can give your child a tub bath while the needle is in only if you can keep the dressing dry.

Child Care or School

Tell all the people who take care of your child that he or she has a port. Tell them what your child can and can't do with it, and whether the site can get wet.

Tell them to let you know right away if the child is bumped or hurt near the port.

Tell them to call you right away if the site around the Port-a-Cath has:

- bruising
- swelling
- redness
- bleeding
- pain

or if your child:

- has a fever over 101° F.
- has chills
- the port seems to have moved



Dental Care

A Port-a-Cath puts your child at higher risk for an infection when getting dental work. Before and after dental work, your child should be given antibiotics. Call your child's doctor before your child sees a dentist.

Dealing With Problems

Look at the skin over the Port-a-Cath every day. If the port stops working, or causes discomfort, the child will have to return to the doctor's office or hospital to have it checked. The port may not work or get infected.

A port that doesn't work

If you cannot flush the port, or cannot get a blood return:

1. Do not use force to flush the port. The pressure could loosen a plug so it is free to block a blood vessel. Forceful pressure could even break the port.
2. Make sure the tubing is not clamped.
3. Make sure the port needle is pushed in so it touches the back of the port.
4. Have your child raise his arms over his head, or lay on his side, and try again.



5. If you cannot flush the port or get a blood return, call your child's health care team.

Infection

- Look at the skin over the Port-a-Cath every day.
- Signs of infection can be:
 - drainage or oozing, such as pus
 - swelling
 - tenderness, soreness
 - warmth
 - pain
 - redness at the exit site
 - redness along the catheter path beneath the skin
 - a temperature above 101° F orally (check with your health care

provider)
— odor from the exit site

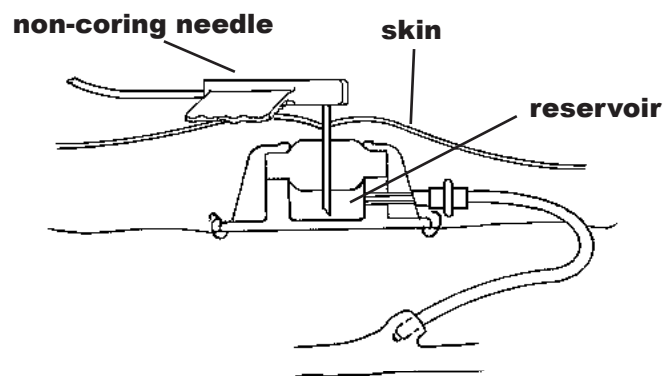


- If you see any of these signs call your child's health care team right away.

Words to Know

access	The port is accessed when the non-coring needle is placed into the center of the port to flush the port, draw blood, or give medicine.
antimicrobial scrub	A liquid soap that is made to kill germs. Examples are Dial, Safeguard, Hibiclens, povidine-iodine scrub and Sepssoft.
chlorhexidine	A clear liquid used to kill germs on the skin before a non-coring needle is put into the port.
dressing	A covering placed over the port. It helps to keep germs from getting under the skin.
EMLA cream or L-M-X 4 cream	A cream with medicine used to numb the skin over the port. 30 to 60 minutes after it is put on the skin, your child will feel the pressure of the needle, but should not feel a sharp pain of the needle stick.
heparin	A medicine that prevents the blood from clotting. This is one of the medicines in a group called anticoagulants.
heparinization	The process of putting heparin into the port to prevent the blood from clotting between uses.
injection cap	A plug with one rubber end, and the other end screws onto the end of the tubing of the port needle. A needle can be placed into the rubber end to inject saline, heparin, or medicine.
IV	See intravenous.
intravenous (IV)	Inside the vein.

non-coring needle	The only type of needle that can be used to access a Port-a-Cath. It does not tear the rubber center or the port, which seals itself every time the needle is taken out.
reservoir	The round end of the port. The non-coring needle goes through the skin into the reservoir. When the port is not in use, a small amount of heparin stays in the reservoir, to keep blood from clotting in there.
saline	A special sterile mixture of salt and water used to flush the port.
sterile	There is nothing living on the object. It means there are absolutely no germs at all. Your skin cannot be sterilized and still be alive itself. It can only be disinfected, where most of the germs on it are killed.
sterile gloves	Gloves that have no germs on them.
transparent dressing (Tegaderm or Sorbaview)	When the needle is left in the port, it is covered by this thin clear dressing.



Now that you've read this:

- Tell your nurse or doctor what two people will learn how to care for your child's port. (Check when done.)
- Tell your nurse or doctor what you will look for at the site where the Port-a-Cath is placed. (Check when done.)
- Tell your nurse or doctor where in your home you will access your child's port, and when. (Check when done.)
- Tell your nurse or doctor who can help you when you care for your child's port. (Check when done.)
- Show your nurse or doctor how you access your child's port, and give medicine. (Check when done.)
- Tell your nurse or doctor what the medicine heparin is for, and when your child's Port-a-Cath needs it. (Check when done.)



If you have any questions or concerns,
 call your child's doctor or call _____

If you want to know more about child health and illness,
visit our library at The Emily Center at Phoenix Children's Hospital
1919 East Thomas Road
Phoenix, AZ 85016
602-546-1400
888-908-5437
www.phoenixchildrens.com

Disclaimer

The information provided at this site is intended to be general information, and is provided for educational purposes only. It is not intended to take the place of examination, treatment, or consultation with a physician. Phoenix Children's Hospital urges you to contact your physician with any questions you may have about a medical condition.

Friday, August 29, 2008 • DRAFT for family review
#810 • Written by Lori Wagner, RN • Illustrated by Dennis Swain
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The Emily Center

How to Use a Port-a-Cath

Procedure/Treatment/Home Care

Si usted desea esta información en español,
por favor pídasela a su enfermero o doctor.

Name of Health Care Provider: _____ Number: 810
For office use: Date returned: _____ db nb

Family Review of Handout

Health care providers: Please teach families with this handout.

Families: Please let us know what you think of this handout.

Would you say this handout is hard to read? Yes No

easy to read? Yes No

Please circle the parts of the handout that were hard to understand.

Would you say this handout is interesting to read? Yes No

Why or why not?

Would you do anything differently after reading
this handout? Yes No

If yes, what?

After reading this handout, do you have any
questions about the subject? Yes No

If yes, what?

Is there anything you don't like about the drawings?

Yes No

If yes, what?

What changes would you make in this handout to make it better or easier to understand?

Please return your review of this handout to your nurse or doctor or send it to the address below.

Fran London, MS, RN
Health Education Specialist
The Emily Center
Phoenix Children's Hospital
1919 East Thomas Road
Phoenix, AZ 85016-7710

602-546-1395

flondon@phoenixchildrens.com

Thank you for helping us!