Care of the PORT
The Implanted Port

What is a port?
A port is a disk-shaped device that is placed under the skin. A small flexible tube called a catheter connects the port to a large vein near the heart. The port has a raised center called a septum. The septum is made of a self-sealing rubber that can be punctured hundreds of times before it weakens. A special needle is inserted into the septum and is then covered with a dressing to hold it in place and to protect the site from infection.

Why do I need a chest port?
A port is used for people who need medication, fluids, blood products, chemotherapy, or nutrition through a vein for a long period of time. It may also be used for drawing blood.

How is a port inserted?
The port is surgically inserted under the skin in the upper chest, just below the clavicle or collar bone, or in the upper arm and appears as a small bump under the skin. It is inserted in the operating room or radiology. Patients sometimes have a little discomfort after the procedure. When no longer needed, the port can be removed in the operating room.

What do I need to know about my port?
While your port is being used for IV therapy, the needle will remain inserted and the site will be covered with a transparent dressing. This is called being “accessed.” When your port is accessed, it will need to be flushed daily with heparin if not in use. When your port is not accessed (no needle), it will need to be flushed once a month.
How will I care for the port?

There are several things you will need to know in order to care for your port. Below are the steps you must take to prevent infection and ensure it will continue to work well for as long as you need it:

- Properly store, check and handle supplies.
- Prepare a work area and clean your hands.
- Flush your port with heparin every day.
- Change your port dressing and needle weekly.
- Change your cap weekly.

This booklet details these skills, then lists ways to protect your catheter and includes a table for troubleshooting problems that can happen. Your nurse will make sure you understand the procedures and provide time for you and your family to practice.

Storing Your Supplies

- Keep items away from children and pets.
- Store supplies in an area that is dry and free from dirt, dust, and clutter.
- Choose a place as close to your work area as possible.

Checking Your Supplies

Check your syringes and do not use if:

- Leaks are present.
- Fluid is cloudy or discolored.
- Particles or specks appear in the fluid.
- The expiration date has passed.

Check all packaging and do not use if:

- Seal is broken.
- Package is torn.
- Any part of the package is wet.
Selecting Your Work Area

Work on a table, laminate mat, counter top, or tray that can be cleaned with a household disinfectant or rubbing alcohol in an area:

- Free from drafts, dirt, dust, and clutter.
- With enough space and good lighting.
- Near your supplies.

Do not work in the bathroom since most of the germs in your house are located there. Also, avoid working in your kitchen where you prepare food.

Preparing Your Work Area

1. Place a trash can next to your work area.

2. Clean your work surface or laminate mat with household disinfectant or rubbing alcohol. Let the area air dry.

Cleaning Your Hands

Although your hands may look and feel clean, it is always important to wash your hands in order to remove germs you can’t see. Your hands should always be washed before any port care. You must wash your hands again if you touch anything that might be considered dirty.

There are two ways to properly clean your hands: Washing with antibacterial soap or using an instant hand sanitizer (containing 60-90% ethyl alcohol). Do not use an instant hand sanitizer if your hands are visibly dirty or you have a C. difficile infection.

Washing Your Hands with Soap

1. Wet your hands and wrists under warm running water.

2. Apply soap and scrub vigorously for 15 seconds.

3. Work lather between fingers, under nails, over the palms and back of your hands.

4. Rinse your hands well. Make sure to keep your hands up so the dirty water runs toward your elbows.
5. Dry your hands with a clean paper or cloth towel.
6. Turn off the faucet with a clean towel.

**Using an Instant Hand Sanitizer**
1. Place a dime-size amount of instant hand sanitizer in one hand.
2. Gently rub the gel into palms and backside of hands and between fingers.
3. Allow your hands to air dry.

**Handling Sterile Supplies**
- Some of the supplies are sterile. Sterile means that all germs have been removed by a special cleaning process.
- Parts of supplies that must be kept sterile are protected with a cover.
- Never touch sterile parts with your hands or allow a sterile item to touch a non-sterile surface.

**Flushing Your Port**
Your port must be flushed to prevent infection and keep blood from clotting. Flush your port once a day when it is accessed and monthly when not accessed. It must also be flushed after blood is drawn or medications are given through it. If you are infusing medication, refer to the administration sheets given to you.

**Supply list:**
- Prefilled heparin flush syringe (10 units/mL)
- Alcohol pads

**Key Points**
- The heparin syringes do not need to be refrigerated.
- **Do not** use force when flushing your port. If you cannot flush your port easily, call your clinician.
- Check your port catheter cap to make sure it is on securely (always hold your catheter cap while connecting/disconnecting syringes to prevent accidental removal).
- Never reuse syringes.
Follow these steps:

1. **Vigorously** scrub the end of the cap on your port with an alcohol pad for 15 seconds.

2. Remove the prefilled heparin syringe from the package and hold upright.

3. **Do not** remove the cap from the end of the prefilled syringe. Press forward on the plunger to break the seal. Do not pull back on the plunger.

4. Gently tap the sides of the syringe so the bubbles rise to the top. Remove the cap and push the plunger to remove all the air.

5. Push and twist the heparin syringe into your port catheter cap to the right until secure.

6. Unclamp your port.

7. Push the heparin flush into your port until 0.5 mLs of solution remain. Clamp your port, remove the syringe and discard in your trash.

**Flushing and Removing Your Port Needle**

You may need to learn how to remove the needle from your port. It is important to always flush the port before removing the needle in order to prevent it from clotting.

**Supply list:**

- One prefilled heparin flush syringe (10 units/mL)
- Alcohol pads
- One 2 x 2 gauze square
- Dressing

**Follow these steps:**

1. Flush your port (as directed on page 7).

2. Remove the catheter dressing.
3. Open the 2x2 gauze square and have ready to apply pressure at the needle site.

4. Remove port needle by securely holding the plastic base down with 2 fingers. Then firmly pull wings straight up until you hear or feel a “click” and you can see the orange dot.

5. Apply pressure for a few seconds with the 2x2 gauze square.

6. Cover the site with a dressing if needed.

7. Place syringe and used port needle in the sharps container.

**Dressing and Port Needle Change**

**Supply list:**

- 1 Pre-packaged dressing kit
- 1 bent needle package (non-coring needle)
- 1 Catheter cap
- 1 prefilled syringe of Heparin Lock Flush
- 2 prefilled syringes of Normal Saline
- Alcohol wipes

**Key Points**

- Change the dressing and needle every 7 days.
- A numbing cream may be applied prior to needle insertion (obtain prescription from your doctor). Apply cream according to the package directions. Remove the remaining cream and clean the
entire area immediately before procedure.

- Change the dressing as soon as possible if it becomes dirty, wet, or loose.

**Follow these steps:**

1. Clean work area.
2. Gather supplies.
3. Wash hands for 15 seconds or use an instant hand sanitizer.
4. Open the dressing change kit. Carefully remove and unwrap the white paper drape touching only the edges. The center of the paper drape will be your sterile field; the edges will not be sterile.
5. Open the bent needle package and drop the needle onto sterile field without touching it.
6. Place catheter cap and heparin and normal saline syringes on the edge of the drape (these are not sterile).
7. Carefully attach catheter cap to the port needle extension tubing without touching the port needle.
8. Vigorously scrub the catheter cap with an alcohol wipe for 15 seconds. Insert the normal saline syringe into the cap and fill the port needle and attached tubing with saline.
9. Place needle with attached extension tubing on a dry section of the sterile field; place the attached syringe on edge of field.
10. Open and put on sterile gloves.
11. Remove the cleansing swabstick from the package.
12. Carefully clean the area around your port.
   - Gently press the swabstick against the port site and carefully clean a 2 inch area around the port site by using a back and forth motion for 30 seconds.
   - Repeat with each swabstick.
   - Allow the area to air dry completely. Do not blot or wipe dry.
13. Using your dominant hand, grasp the port needle by the “wings”; allow the syringe to dangle. Remove the needle cover.
14. Locate the center of the port by feeling the edges with your thumb and index finger of your non-dominant hand.

15. Insert the needle perpendicular to the skin into the center of the port. Continue to advance needle until resistance is felt.

16. Draw back on the syringe until blood is visible in the tubing. **Discard the syringe with its contents.**

17. Vigorously scrub the catheter cap with an alcohol wipe for 15 seconds. Flush the line with the second saline syringe. Close clamp on extension tubing and carefully remove the syringe.

18. Apply skin prep (in kit) to the surrounding skin where the dressing will be placed. Let dry until smooth and shiny.

19. Apply the dressing.
   - Remove the protective backing from the transparent dressing.
   - Place the center of the dressing over the port needle while holding the split side of the dressing off the skin. Then overlap the soft cloth tabs under the tubing.
   - Press the dressing into place. Slowly remove the frame on the dressing while smoothing down the dressing edges. Smooth from the center toward the edges, using firm pressure.
   - Take one steri-strip from the frame of the dressing and crisscross or “butterfly” it around the tubing and attach it over the dressing.
   - Place the other steri-strip over the butterfly to hold it in place.

20. Administer your medication if needed, or flush with heparin and clamp your port.
How will I protect the port?

You may participate in most normal activities including work, school and exercise. The following precautions will help prevent damage and infection while your port is accessed:

- Avoid swimming, use of hot tubs and getting your port wet.
- Keep the dressing and catheter clean and dry when you shower or bathe.
  - Cover the dressing and catheter with plastic wrap and tape the edges of the plastic wrap onto your skin.
  - If the dressing gets wet, change the dressing immediately.
  - Never let the catheter ends get wet.
- Avoid golfing, bowling, weight lifting, archery or activities requiring vigorous or repetitive motion of the arm.
- Avoid any contact sports where the port might be pulled or grabbed.
- Limit any activity such as pulling, pushing, or lifting.

If you have any questions about activities while your port is in place, please contact your clinician.
## Troubleshooting Port Problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infection</strong></td>
<td></td>
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<tr>
<td>• Fever and/or chills.</td>
<td>• Infection in or around the port.</td>
<td>• Call your clinician immediately.</td>
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<tr>
<td>• Redness, swelling, tenderness, and/or drainage at the exit site.</td>
<td></td>
<td>• If pus or drainage is present, note the color, odor, and amount. Give this information to your clinician.</td>
</tr>
<tr>
<td><strong>Blocked Port</strong></td>
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<td></td>
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<tr>
<td>• Cannot flush.</td>
<td>• Port is clamped, kinked, curled, clotted, or positioned against the wall of your vein.</td>
<td>• Visually check the port tubing for kinks and make sure that the port is unclamped.</td>
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<tr>
<td>• Cannot withdraw blood.</td>
<td></td>
<td>• Move your arms, shoulders, and head to see if a change in position helps.</td>
</tr>
<tr>
<td>• Cannot infuse medication.</td>
<td></td>
<td>• If unable to withdraw blood, change the port needle.</td>
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<tr>
<td></td>
<td></td>
<td>• If still unable to flush the port, call your clinician.</td>
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<tr>
<td><strong>Swelling at Needle Site</strong></td>
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</tbody>
</table>
| • Swelling or puffiness or pain at needle insertion site. | • The needle may have moved out of position. | • Stop infusion  
• Call your clinician immediately. |
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<tr>
<td><strong>Thrombosis</strong></td>
<td>• Arm, neck or chest (on the same side as your port) becomes swollen and cool to the touch.</td>
<td>• Blood clot</td>
</tr>
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<td></td>
<td></td>
<td>• Call your clinician immediately.</td>
</tr>
<tr>
<td><strong>Skin Irritation</strong></td>
<td>• Redness</td>
<td>• Irritation from the dressing or tape.</td>
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<tr>
<td></td>
<td>• Tenderness</td>
<td></td>
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<td></td>
<td>• Blistering of the skin.</td>
<td></td>
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<tr>
<td><strong>Fluid Leakage</strong></td>
<td>• Fluid leakage from:</td>
<td>• Stop your infusion.</td>
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<tr>
<td></td>
<td>o Needle insertion site.</td>
<td></td>
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<tr>
<td></td>
<td>o Along the port extension tubing.</td>
<td>• Check port tubing and cap connection. Be sure they are tight.</td>
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<td></td>
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<td>• Notify your clinician.</td>
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</table>
Resources and Phone Numbers

Contact: ________________________________________________________________

Doctor/Clinician: ________________________________________________________

Clinic: _________________________________________________________________

Home Infusion Provider: _________________________________________________

Notes
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Author: HomeMed Patient Education Committee
Reviewers: Deb Kovacevich, MPH, RN

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