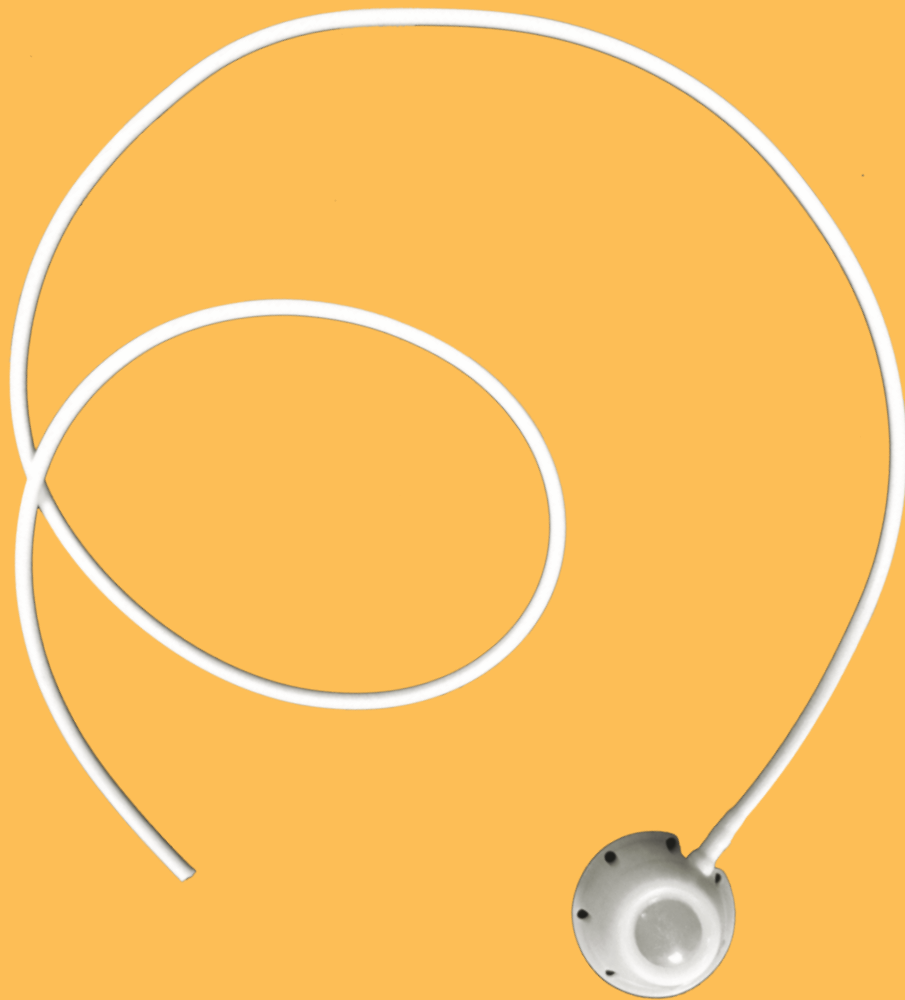


Care of the  
**PORT**  
In the Home



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# Implanted Port Basics

## 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. A special needle with an extension tubing is inserted into the septum and is then covered with a dressing to hold it in place and to protect the site from infection (see diagram on page 2).

## 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.

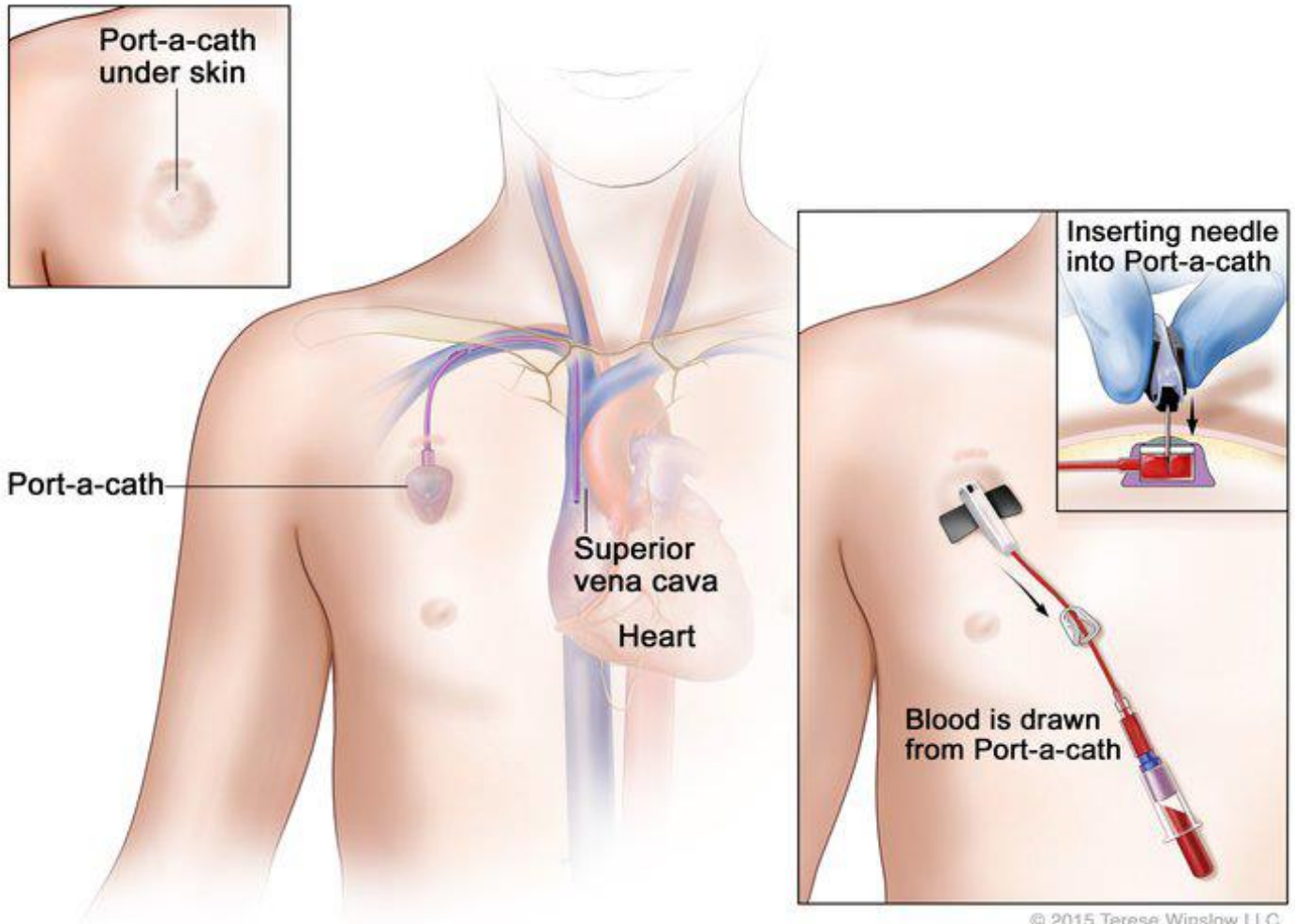
## How is a port inserted?

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 with heparin.

## Port-a-cath (Port)



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# Preparing for Port Care

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.
- Select and prepare a work area.
- Clean your hands.
- Flush your port with heparin every day.
- Attach new alcohol cap after every heparin flush.
- Have your port dressing changed regularly.
- Have your port needle changed weekly.

This booklet details the steps, then lists ways to protect your port 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.
- It has expired.

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.

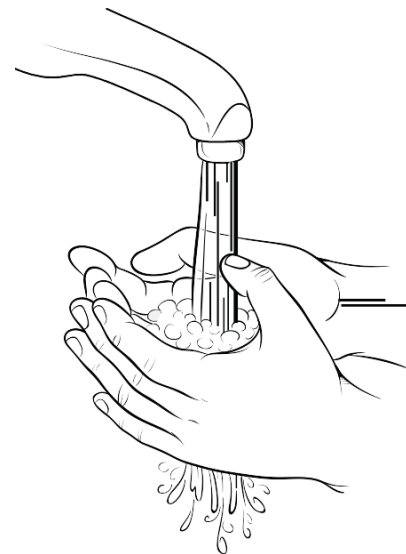
### **Cleaning Your Hands**

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 soap or using an instant hand sanitizer (containing 60-90% ethyl alcohol). If your hands are visibly dirty or you have a C. difficile infection, you must wash your hands with soap and water.

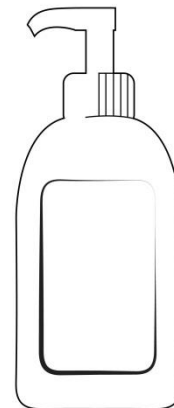
### Washing Your Hands with Soap

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 it is not accessed. It must also be flushed after blood is drawn or medications are given through it.

## Supply list:

- Prefilled heparin flush syringe (10 units/mL)  
(removed from package)
- Alcohol pads
- Alcohol cap

## 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 attached securely to your port extension tubing (always hold your catheter cap while connecting/disconnecting syringes to prevent accidental removal).
- Never reuse a syringe.

## Follow these steps for flushing your port:

1. Place a trash can next to your work area and clean your work surface.
2. Wash hands with soap for 15 seconds or use an instant hand sanitizer.
3. Gather your supplies and place on your clean work surface.
4. Remove alcohol cap from your port catheter cap.
5. Open an alcohol pad and **vigorously** scrub the end of the cap on your port tubing for 15 seconds and allow the alcohol to dry. Do not fan or blow on it. Do not place the lumen down or contaminate the end of the cap.



6. **Do not** remove the cap from the prefilled syringe and press forward on the plunger to break the seal. Do not pull back on the plunger.
7. While holding the syringe upright, 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.
8. Push and twist the heparin syringe into your catheter cap to the right until secure.
9. Unclamp your port extension tubing.
10. Push the heparin flush solution into your port until 0.5 ml remains in the syringe. Clamp your port extension tubing, remove the syringe and discard in your trash.
11. Attach new alcohol cap onto end of your port catheter cap.

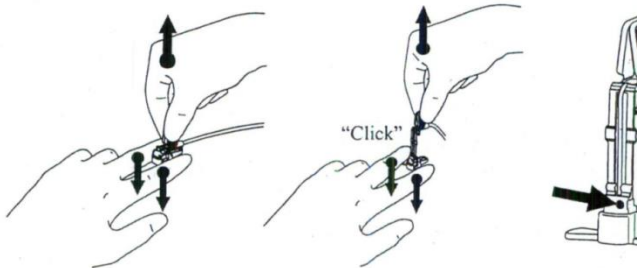
# Removing the Port Needle

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
- Bandage

## Follow these steps to remove the port needle:

1. Flush your port (see previous section).
2. Carefully remove the port dressing.
  - Pull the dressing one corner at a time toward the port needle site.
  - After all the corners are loosened, hold the needle down and pull the dressing up and off.
3. Throw the dressing away and clean your hands again with an instant hand sanitizer.
4. Open the 2x2 gauze square and have ready to apply pressure at the needle site.
5. 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”.
6. Apply pressure for a few seconds with the 2x2 gauze square.
7. Cover the site with a bandage, if needed.
8. Place used port needle in a sharps container.

# Changing the Port Needle and Dressing

## Supply list:

- Pre-packaged IV dressing change kit
- IV dressing
- Bent needle package (non-coring needle)
- IV catheter cap (needleless connector)
- Prefilled heparin flush syringe
- Prefilled **sterile** saline flush syringe
- Securement device (i.e., Grip-Lok®)
- Alcohol cap
- Alcohol pads

## Key Points

- Change the needle every 7 days.
- Clean the skin and change the dressing 3 times a week for gauze and tape dressing (such as Monday, Wednesday and Friday).
- 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.

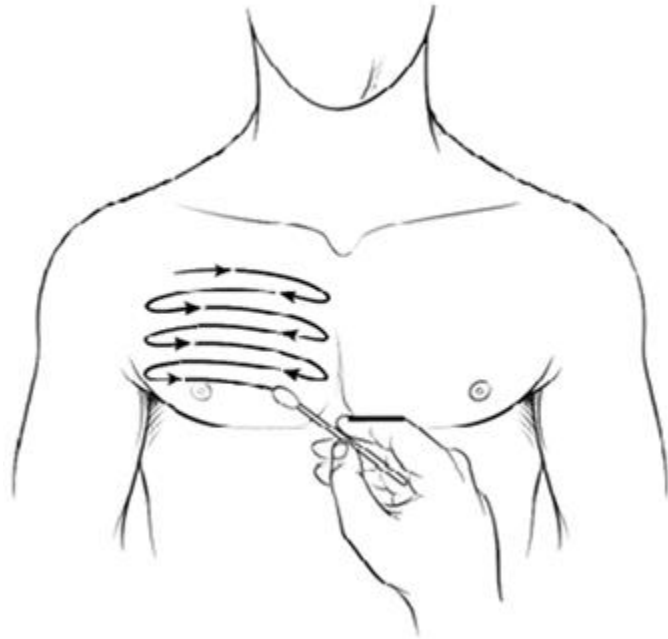
## Follow these steps to change the port needle and dressing:

1. Place a trash can next to your work area and clean your work surface.
2. Wash your hands with soap for 15 seconds or use an instant hand sanitizer.

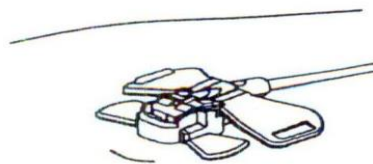
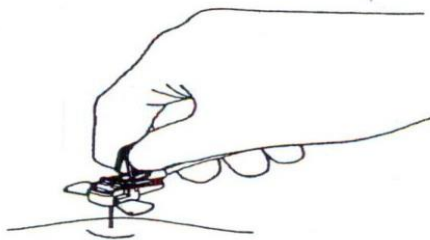
3. Gather your supplies and prepare for the procedure:
  - Open the dressing change kit.
  - Put on the mask.
  - Carefully remove and unwrap the white paper drape touching only the edges (the **center** of the paper drape will be your sterile field and the **edges** will not be sterile).
  - Place the contents of the kit onto the **sterile** field.
  - Open the sterile saline syringe package and drop the syringe onto the **sterile** field without touching it.
  - Open the bent needle package and drop the needle onto the **sterile** field without touching it.
  - Open the IV catheter cap package and drop the cap onto the **sterile** field without touching it.
  - Open the sterile IV dressing package and drop the dressing onto the **sterile** field without touching it.
  - Open the heparin syringe package and place the syringe onto the **edge** of the drape (this is **not sterile**).
  - Open the securement device package and place device onto the **edge** of the drape (this is **not sterile**).
4. Wash your hands again or use an instant hand sanitizer, then put on the sterile gloves.
5. Carefully attach catheter cap to the port needle extension tubing without touching the port needle.
6. Insert the sterile saline syringe into the cap and prime the attached extension and port needle. Leave the syringe attached and place on a dry section of the **sterile** field.
7. Remove a cleansing swabstick from the package.

8. Carefully clean the area around your port:

- Use a back-and-forth motion for 30 seconds.
- Completely clean a 2 inch area around the port site.
- Allow the area to air-dry completely. Do not blot or wipe dry.
- Discard the swabstick.
- Clean the area **again** with the remaining swabsticks, discarding after each use and allowing the solution to dry.



9. Using your dominant hand, grasp the port needle by the “wings”; allow the syringe to dangle. Remove the needle cover.
10. Locate the center of the port by feeling the edges with your thumb and index finger of your non-dominant hand.
11. Insert the needle perpendicular to the skin into the center of the port. Continue to advance needle until resistance is felt.



12. Draw back on the syringe until blood is visible in the tubing. **Flush with remaining saline solution in the syringe.**
13. Close clamp on extension tubing and carefully remove the syringe.
14. Apply skin prep (in kit) to the surrounding skin where the dressing will be placed, starting 1 inch away from the port and working outward. Let dry until smooth and shiny. Always wait until the area is completely dry before proceeding to the next step.
15. Apply the new 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.
  - 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.
16. Apply the securement device (i.e., Grip-lok®).
  - Peel the paper backing from the securement device and place under the catheter on the split area of the dressing.
  - Lift the top flap and remove the paper backing where it says “peel”.
  - Place port extension tubing on top of the bottom strip of the securement device.
  - Place top flap over the tubing so that the tubing is secured between bottom strip and top flap.
17. Administer your medication if needed or flush with heparin, then clamp your port and attach new alcohol cap.

## 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**:

- Do not participate in any contact sports where the port needle and extension tubing might be pulled or grabbed.
- Keep the dressing and port tubing clean and dry when you shower or bathe.
  - Cover the dressing and port tubing with plastic wrap and tape the edges of the plastic wrap onto your skin.
  - If the dressing gets wet, change the dressing immediately.

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

# Troubleshooting Port Problems

Problem	Possible Cause	What to Do
<b>Infection</b>		
<ul style="list-style-type: none"> <li>• Fever and/or chills.</li> <li>• Redness, swelling, tenderness, and/or drainage at the exit site.</li> </ul>	<ul style="list-style-type: none"> <li>• Infection in or around the port or in your bloodstream.</li> </ul>	<ul style="list-style-type: none"> <li>• Call your clinician immediately.</li> <li>• If pus or drainage is present, note the color, odor, and amount. Give this information to your clinician.</li> </ul>
<b>Blocked Port</b>		
<ul style="list-style-type: none"> <li>• Cannot flush.</li> <li>• Cannot withdraw blood.</li> <li>• Cannot infuse medication.</li> </ul>	<ul style="list-style-type: none"> <li>• Port tubing is clamped, kinked, curled, clotted, or positioned against the wall of your vein.</li> </ul>	<ul style="list-style-type: none"> <li>• Visually check the port tubing for kinks and make sure that the port is unclamped.</li> <li>• Move your arms, shoulders, and head to see if a change in position helps.</li> <li>• If unable to withdraw blood, change the port needle.</li> <li>• If still unable to flush the port, call your clinician.</li> </ul>
<b>Swelling at Needle Site</b>		
<ul style="list-style-type: none"> <li>• Swelling or puffiness or pain at needle insertion site.</li> </ul>	<ul style="list-style-type: none"> <li>• The needle may have moved out of position.</li> </ul>	<ul style="list-style-type: none"> <li>• Stop infusion</li> <li>• Call your clinician immediately.</li> </ul>
<b>Thrombosis</b>		
<ul style="list-style-type: none"> <li>• Arm, neck or chest (on the same side as your port) becomes swollen and cool to the touch</li> </ul>	<ul style="list-style-type: none"> <li>• Blood clot</li> </ul>	<ul style="list-style-type: none"> <li>• Call your clinician immediately.</li> </ul>



# Troubleshooting Port Problems

Problem	Possible Cause	What to Do
<b>Skin Irritation</b>		
<ul style="list-style-type: none"> <li>• Redness</li> <li>• Tenderness</li> <li>• Blistering of the skin.</li> </ul>	<ul style="list-style-type: none"> <li>• Irritation from the dressing or tape.</li> </ul>	<ul style="list-style-type: none"> <li>• Call your clinician               <ul style="list-style-type: none"> <li>◦ You may need to use another type of dressing and try to avoid placing the dressing over irritated skin.</li> </ul> </li> </ul>
<b>Fluid Leakage</b>		
<ul style="list-style-type: none"> <li>• Fluid leakage from:               <ul style="list-style-type: none"> <li>◦ Needle insertion site.</li> <li>◦ Along the port extension tubing.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The needle may have moved out of position.</li> <li>• Connection between the port extension tubing and cap is loose or disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>• Stop your infusion.</li> <li>• Check port tubing and cap connection. Be sure they are tight.</li> <li>• Notify your clinician.</li> </ul>
<b>Air Embolism-Air in the Blood Stream</b>		
<ul style="list-style-type: none"> <li>• You may have one or more of the following symptoms:               <ul style="list-style-type: none"> <li>◦ Shortness of breath</li> <li>◦ Coughing</li> <li>◦ Chest pain</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• A tear or hole in the port tubing.</li> <li>• The port tubing was not clamped when the catheter cap was removed.</li> <li>• The IV tubing became separated.</li> <li>• The catheter cap fell off the port tubing.</li> </ul>	<p>If you notice any of these symptoms, you should <b>notify your doctor immediately</b> and do the following:</p> <ol style="list-style-type: none"> <li>1. Clamp catheter and breathe slowly.</li> <li>2. Lie on your left side with your feet and legs elevated with your chest and head slightly lower than your feet.</li> <li>3. Attach a syringe to the end of the catheter; unclamp the catheter and withdraw any air; continue to withdraw the air until you get blood in the syringe.</li> <li>4. Flush the catheter with heparin solution.</li> </ol>

## Resources and Phone Numbers

Contact: \_\_\_\_\_

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

Clinic: \_\_\_\_\_

Home Infusion Provider: \_\_\_\_\_

## Notes



HOMEMED  
HOME CARE SERVICES

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Author: HomeMed Patient Education Committee

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