

# Central Catheters

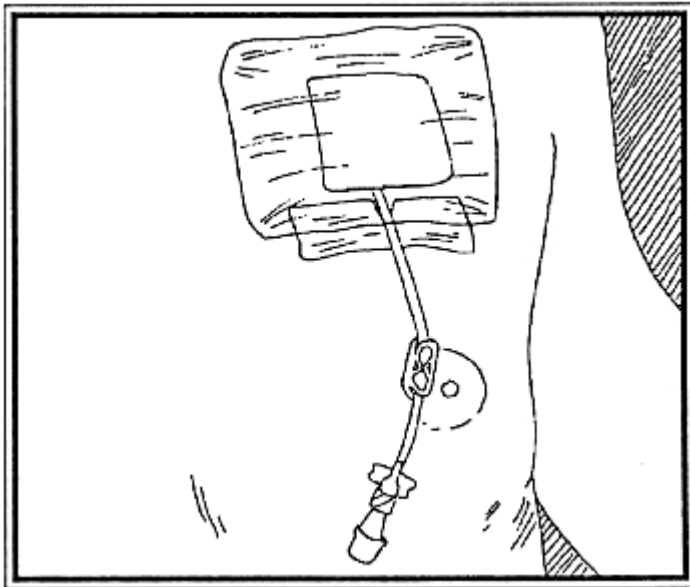
A *Central Catheter* allows you to receive medications and solutions through a large vein in your chest. Using a larger vein allows rapid dilution of the I.V. solution and avoids damage to the vein.

There are various types of central catheters. These catheters are made of soft silastic materials and are designed to stay in place for a long time.

Commonly used central catheters include:

- Hickman
- Broviac
- Groshong
- Hohn
- Cook

Your doctor or nurse will tell the type of catheter you have.



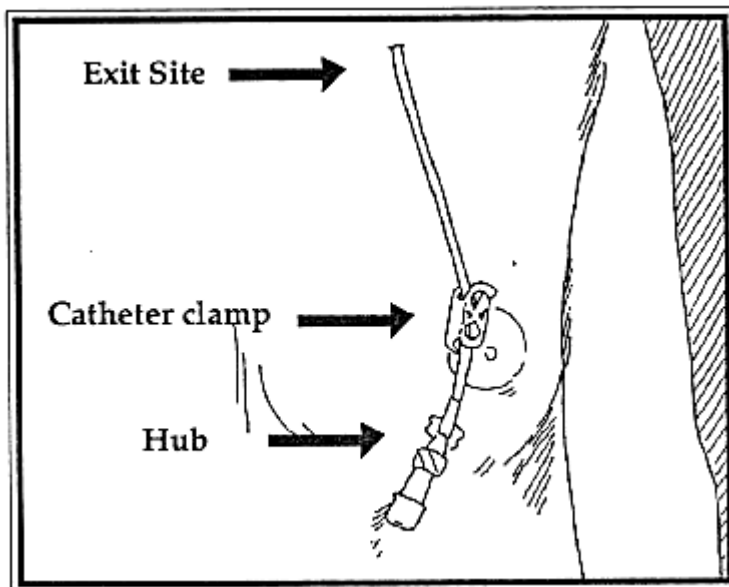
# Central Catheters (continued)

Central catheters are usually placed by a doctor. The majority of these catheters tunnel underneath your skin before exiting your body. This provides a barrier against germs.

The tip of the catheter is the point where the solution enters your bloodstream through a vein in your chest. The point where the catheter leaves your body is called the *exit site*. The *hub* is the hard plastic end of the catheter outside the body.

Most central catheters have a dacron cuff located under the skin a few inches before the catheter exits the body. This dacron cuff serves two purposes:

1. As you heal, your tissue will grow around the cuff to solidly anchor the catheter in place.
2. The cuff serves as a barrier to prevent infection.



# Flushing Your Central Catheter

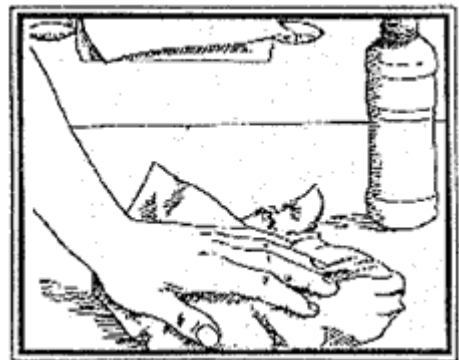
**Flushing** your catheter means infusing a small amount of solution into the catheter to prevent “clogging”.

Here are the steps for flushing your Central Catheter: Equipment:

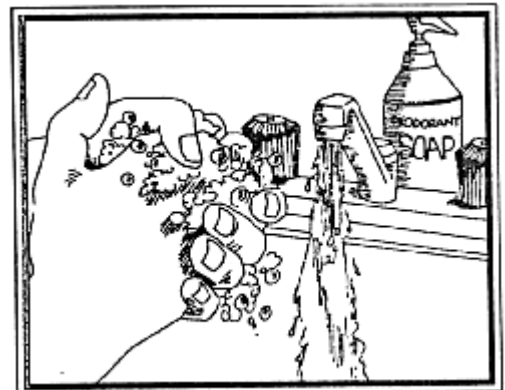
- Prepared Saline Flush Syringe/s
- Prepared Heparin Flush Syringe/s
- Alcohol wipes
- Waste container

**Note: With certain types of catheters, heparin is not used. Your nurse will tell you if this is the case with *your* catheter.**

1. Clean your work area.



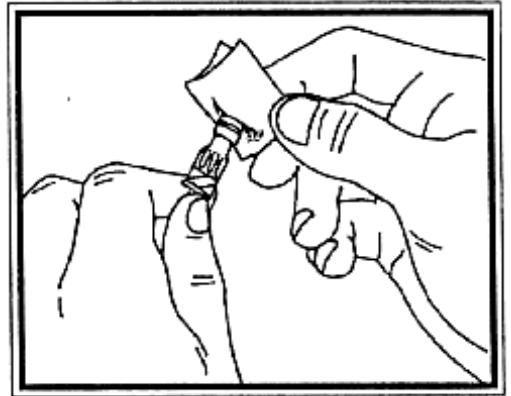
2. Wash your hands thoroughly.



3. Prepare your flushes as instructed by your nurse.

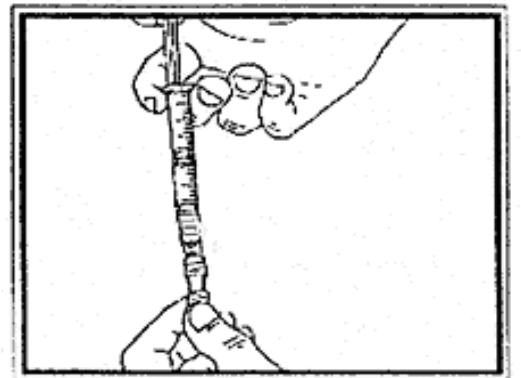
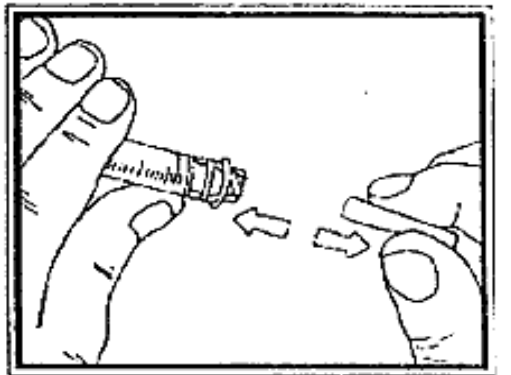
# Flushing Your Central Catheter (continued)

1. If your catheter clamp is closed, open the clamp.
2. Clean the injection cap thoroughly with an alcohol wipe using friction.
3. Pull firmly to remove the protective cover from the syringe.
4. Insert the syringe straight into the injection cap and slowly inject all of the solution.



**Note: If you feel any resistance, DO NOT use force. Refer to the Troubleshooting Guide section at the end of this section before proceeding.**

5. Withdraw the syringe from your injection cap, and dispose as per your nurses instruction.
6. Reclamp your catheter if you have been instructed to do so. (Reclamp over the reinforced area of your Central catheter to prevent damage).



# Changing Your Injection Cap

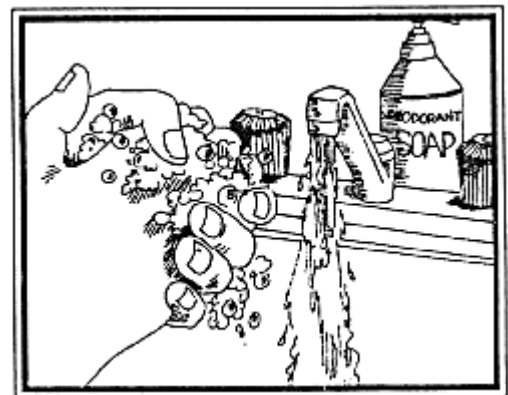
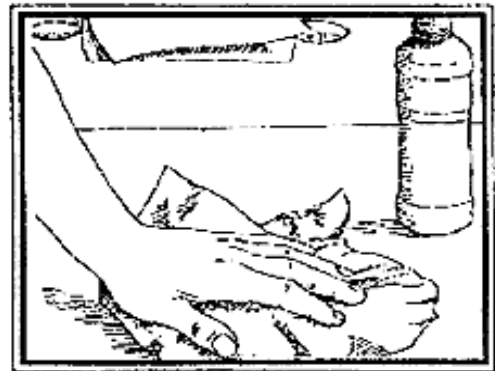
You may be taught to change your injection cap.  
Your nurse will tell you when you need to do this.

## Equipment:

- **sterile injection cap**
- **alcohol wipes**
- **heparin flush**

## Procedure

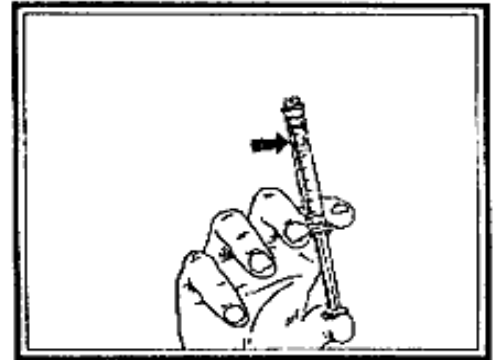
1. To get ready to change your injection cap:
  - Gather your equipment.
  - Clean your work area.
  - Wash your hands thoroughly.



# Changing Your Injection Cap (continued)

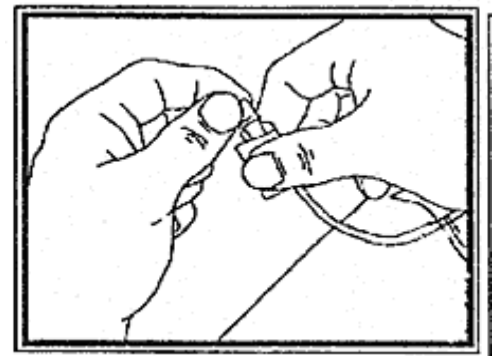
2. Prepare your heparin flush syringe.
3. Clamp your catheter.

**If a caregiver is changing your injection cap, nonsterile gloves are put on now.**

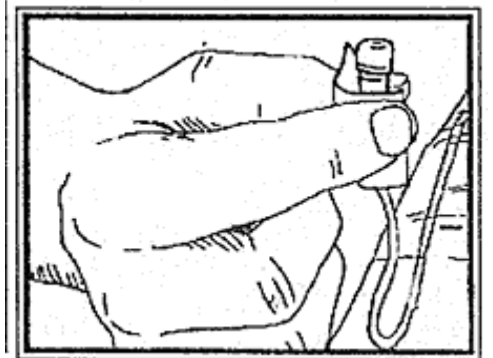


4. To remove the “old” injection cap:

Clean the junction (connection) of the injection cap and catheter tubing thoroughly with an alcohol wipe using friction.



Using a new alcohol wipe, grasp the hub of the catheter tubing.



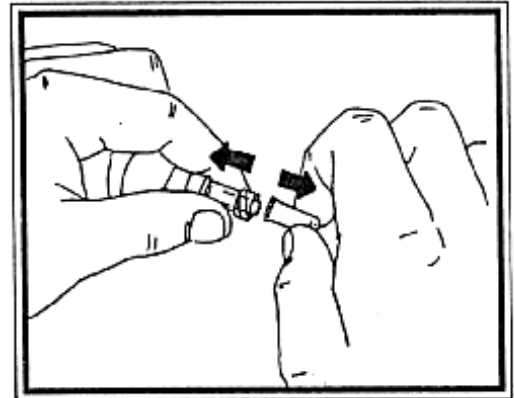
Using a twisting motion, remove the old injection cap.



# Changing Your Injection Cap -continued

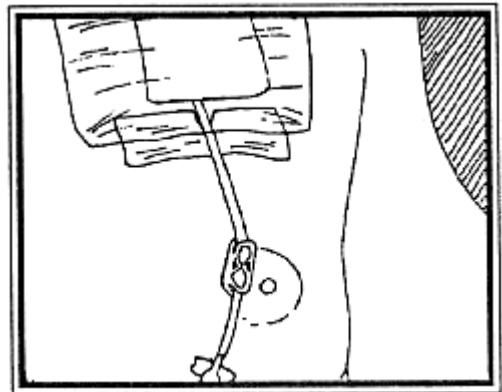
5. To put on the “new” injection cap:

- Remove the protective cover from the new injection cap. **DO NOT TOUCH** the exposed end. It is **STERILE**.
- Place the new injection cap onto the catheter hub. Secure the cap in place with a twist.



6. To complete your injection cap change:

- **clean the end of the injection cap with a new alcohol wipe.**
- flush with heparin solution.
- remove the syringe from the injection cap, and dispose as instructed by your nurse.



# Care and Maintenance of Your Central Catheter

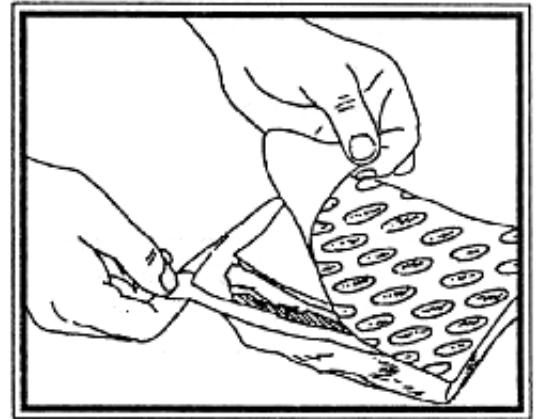
## Changing Your Dressing

Your nurse will tell you when to change your dressing. It is always necessary to change your dressing if it becomes *wet, loose, or soiled*. Good, consistent care of your dressing will reduce the possibility of infection. Follow these steps carefully.

### Equipment

A central line dressing kit containing:

- 1 pair of sterile gloves
- 1 Chloraprep
- 1 Protective dressing swabstick
- Gauze in various sizes
- 1 transparent dressing
- Tape
- Waste container



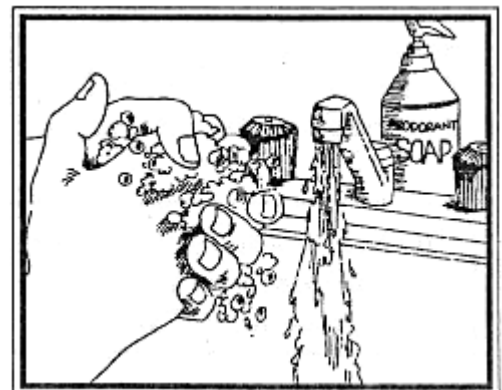
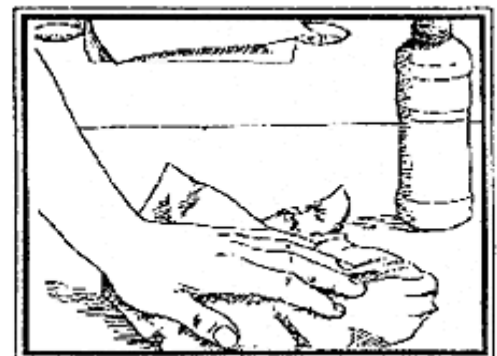
### Procedure

1. To get ready to change your dressing:

- Gather your equipment.
- Clean your work area.
- Remove your clothing to expose the catheter site. Sit comfortably with a good view of the site.

*If a caregiver is changing your Dressing, you may lie down.*

- Wash your hands thoroughly.



# Care and Maintenance of Your Central Catheter

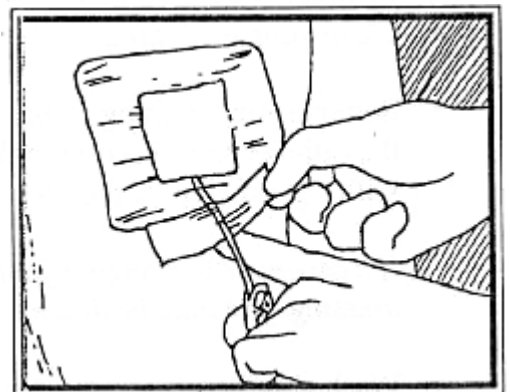
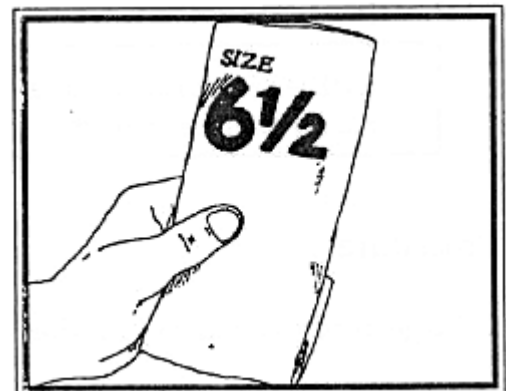
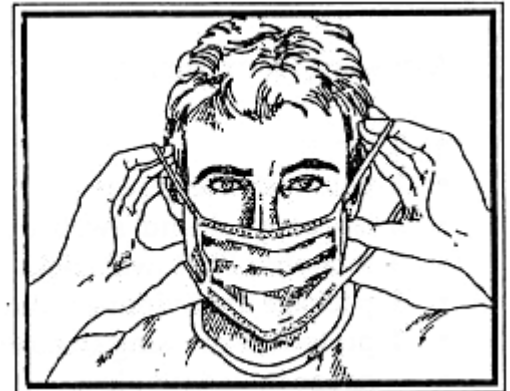
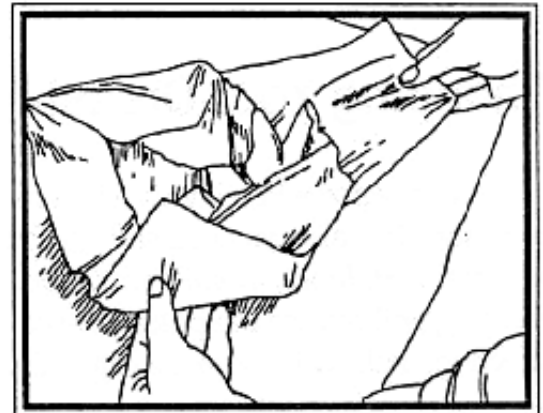
## Changing Your Dressing (continued)

2. To prepare the dressing kit
  - Open the outer flap of the dressing kit.
  - Put on the mask provided and wash your hands again.
  - Unfold the packaging, being careful NOT to touch the inside of the *dressing* kit wrapper.

*The inside of the wrapper is **STERILE**.*

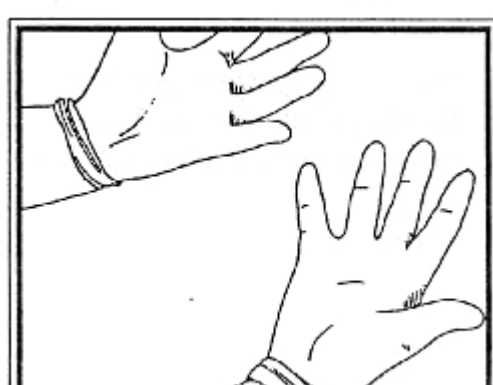
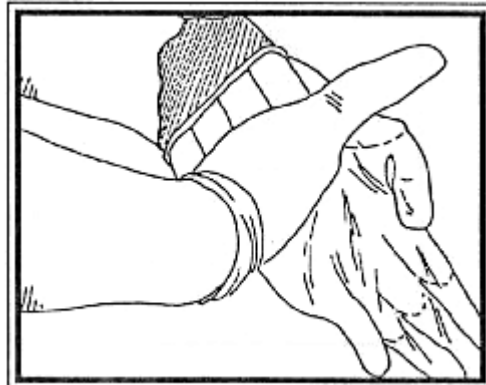
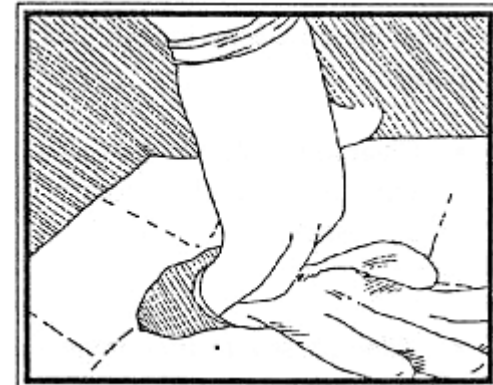
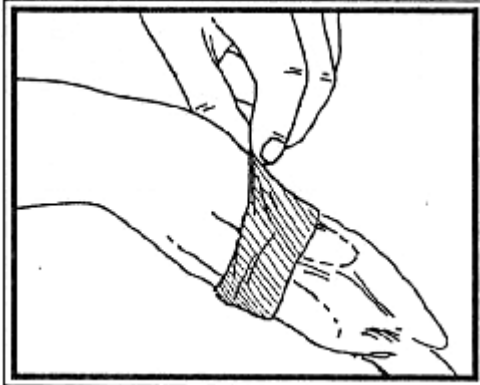
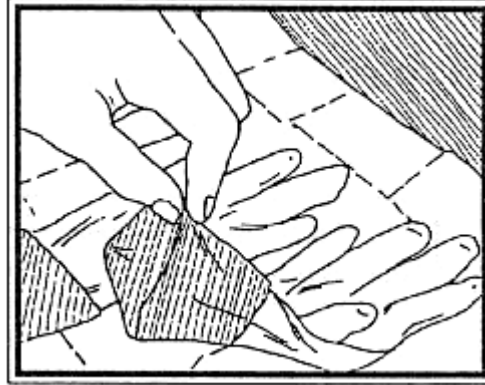
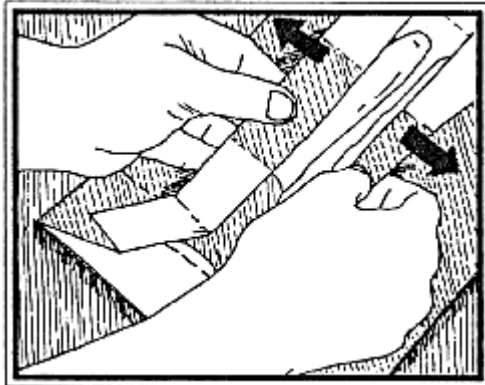
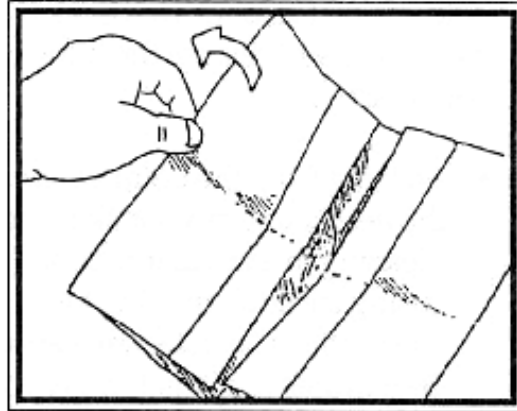
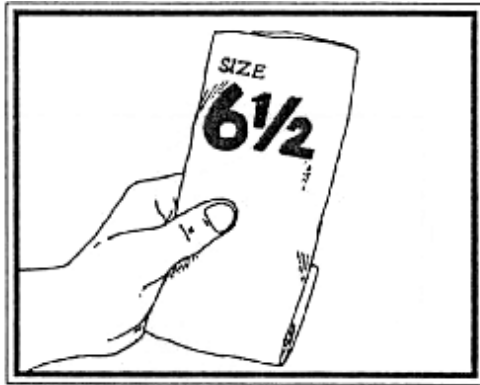
- Set aside the sterile gloves packet.
2. Remove the tape holding the catheter to the dressing, and carefully remove the old dressing. Discard it in your waste container. (*If a caregiver is changing your dressing > nonsterile gloves should be worn to remove the dressing > and then discarded with the old dressing*).

***DO NOT touch the catheter exit site with your bare hands.  
Your hands are NOT sterile.***



# Changing Your Dressing (continued)

4. To put on your sterile gloves:



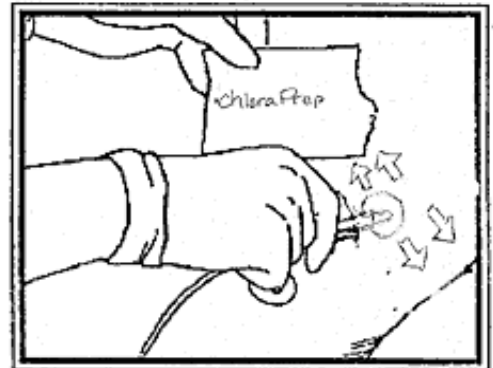
# Care and Maintenance of Your Central Catheter

## Changing Your Dressing (continued)

5. Open the chloraprep swabstick packet.

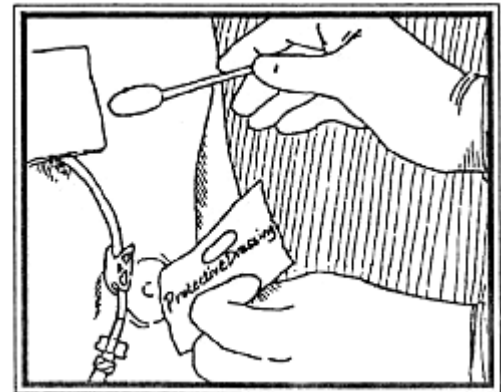
Apply Chloraprep to the dressing area using a Back-and-forth friction scrub for 30 seconds.

Do not blot or wipe away solution.  
Allow skin to dry for 30 seconds.



6. To prepare the exit site for the dressing:

- Open the protective dressing packet. Use the skin protectant swabstick to swab the area around the exit site. As the liquid dries, your skin will become “tacky” to touch.

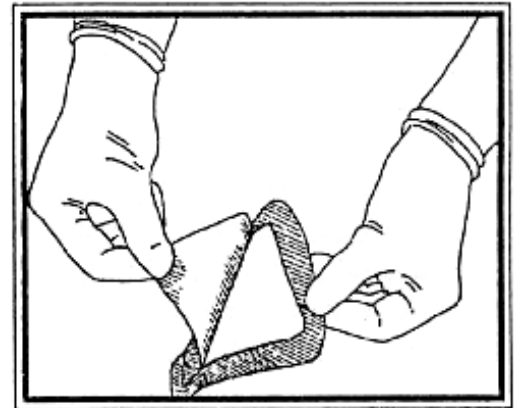


# Care and Maintenance of Your Central Catheter

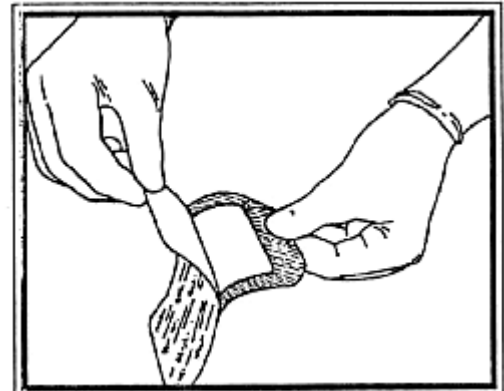
## Changing Your Dressing (continued)

7. Now you are ready to put on the “new” dressing:

Prepare the transparent dressing by removing the paper window.

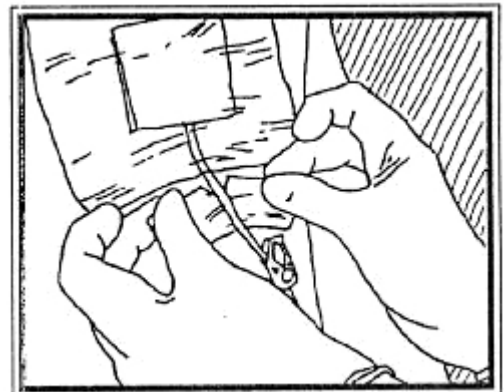


**Carefully** remove the printed adhesive side.



Place the transparent dressing directly over the catheter exit site, molding it around the catheter with your gloved fingers.

Remove the paper edge of the dressing, tracing the edge of the dressing with your finger to mold it securely to your skin.



Your nurse may instruct you to anchor the dressing with tape.

# Care and Maintenance of Your Central Catheter

## Changing Your Dressing (continued)

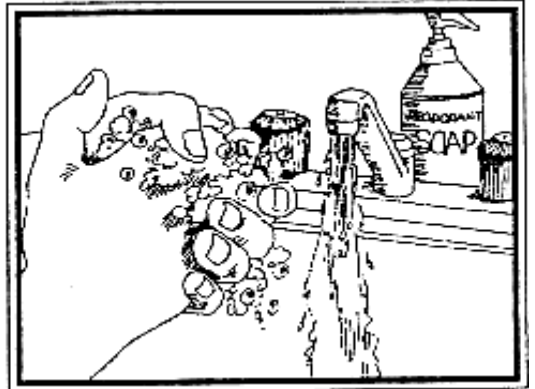
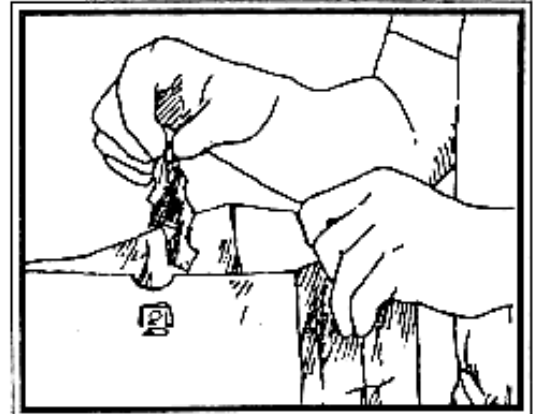
8. Your final steps:

- Place all used supplies in your waste container.

- Remove and discard your gloves.

- Wash your hands thoroughly.

*You're finished!*



# Troubleshooting Your Central Catheter

Your central catheter will not interfere with your daily activities if proper care is taken. On occasion, a problem may occur. A list of some problems, the causes, and what you should do about them is provided below. Your nurse may provide you with additional instructions.

## **Remember:**

- **NEVER** use scissors near the catheter or tubing.

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>WHAT TO DO</b>
<b>RESISTANCE WHEN FLUSHING OR MEDICATION WILL NOT RUN OR RUNS SLOWLY</b>	<ul style="list-style-type: none"> <li>• Tubing is clamped or kinked</li> <li>• Bag is spiked incorrectly</li> <li>• Clotting in catheter</li> </ul>	<ul style="list-style-type: none"> <li>• Check for catheter clamped or tubing kinked.</li> <li>• Make certain the IV bag is spiked correctly.</li> <li>• Check the height of bag.</li> <li>• Flush your catheter with saline, and attempt to restart the infusion.</li> <li>• If the problem persists, call your nurse.</li> </ul>
<b>BLOOD VISIBLE IN I.V. CATHETER</b>	<ul style="list-style-type: none"> <li>• Increased activity or exertion.</li> <li>• Connections are loose or disconnected</li> <li>• Catheter is not taped securely to the chest</li> <li>• Injection cap needs to be changed</li> <li>• Catheter damage</li> </ul>	<ul style="list-style-type: none"> <li>• Check cap and connections, tighten if necessary.</li> <li>• Check for catheter damage.</li> <li>• Flush the catheter, and tape it securely to your chest.</li> <li>• If the problem persists, call your nurse.</li> </ul>
<b>DAMAGED CATHETER</b>	<ul style="list-style-type: none"> <li>• Break or puncture of the catheter</li> <li>• Excessive pulling on catheter or tubing.</li> </ul>	<ul style="list-style-type: none"> <li>• Clamp your catheter near the exit site.</li> <li>• Call your nurse immediately</li> </ul>
<b>INFECTION</b> Fever Sweating or chills Tenderness or redness at the exit site or along the course of the catheter. Drainage or pain at exit site.	Possible infection of the catheter. Possible infection from other causes.	Call your nurse if you note any of these symptoms.
<b>VENOUS THROMBOSIS</b> Redness/swelling at or around the catheter site Pain in the chest, neck, or arm	Irritating medications given through the catheter Clotting of catheter.	Call your nurse if you note any of these symptoms.
<b>SHORTNRSS OF BREATH, COUGHING OR CHEST PAIN</b> (possible air embolism)	Connections are loose or disconnected. Catheter damage Improper priming of the IV tubing Large amount of air entering the catheter	Clamp the catheter tubing. Lie on your left side with your head down. Call for emergency assistance – 911 or your local emergency number.

