

# Home Care of the Central Venous Catheter

## Hickman & PICC Catheters

By



Montana Cancer Center

And

St. Patrick Hospital

*Your nursing staff is committed to serving you and giving you the best care possible. If you have any questions, please feel free to ask your doctor or nurse.*

## **What is a Central Venous Catheter?**

A catheter is a flexible tube used for introducing fluids into your body. It is approximately 15 inches long and looks similar to IV (intravenous) tubing. You may hear it called a Hickman line, PICC line, central line, or right atrial catheter. Throughout this booklet we refer to it as a catheter. This catheter will remain in you as long as it is needed and there are no signs of infection.

## **Why Am I Getting This Catheter?**

Your doctors have decided to put this catheter in because you will be receiving medicines such as antibiotics, chemotherapy treatment, blood transfusions and/or fluids. These solutions may eventually be irritating to the smaller and more fragile veins in your arms, thus causing inflammation and damage. The catheter will be inserted into a larger vein and these problems will be minimized.

There is another advantage to this catheter: You may not need to be stuck with needles for blood tests and IV's in your arm. There are some specific blood tests that cannot be drawn from the central line because the results will not be accurate.

## **Where Will the Catheter Be Located?**

A Hickman catheter is inserted into a vein located on either side of your upper chest. The exit site will be near the breastbone. A PICC line is inserted into the upper arm and exits near the inner elbow.

## **How Will the Catheter Be Placed? How Will I Feel?**

**Hickman** Before going into surgery, you may be given medicine to make you feel drowsy. A two-inch incision is made below the collarbone (clavicle), and a large vein is found. Then a tunnel is formed in the fatty tissue under the skin, exiting at an area on the upper chest. The catheter line is pulled through the tunnel, inserted in the large vein and positioned near the heart. A cuff is positioned in the tunnel, which holds the line in place and decreases the risk of infection. Once your line is in place, you may feel dull aching over the shoulder area for a few days. Discomfort varies with each person, and you may take pain medications as prescribed.

**PICC** A peripherally inserted central catheter or PICC line is inserted in Radiology while you are awake. The doctor will numb your arm and then insert the catheter through the numbed area. You may have bruising and discomfort at the site of the catheter.

## **Will My Activity Level Change?**

For the most part, the catheter will not limit your activity, but you must be careful not to do anything that will damage or pull on your catheter. You may take a shower or bath since the water will not hurt the tube. Swimming, heavy lifting or other hard physical work should be discussed with your doctor. Daily exercise, housework, sexual activity and sleeping can be done safely as long the tube is well secured.

## **How Do I Take Care of the Catheter?**

Since you'll go home with the catheter, we'll teach you how to clean the site and change the dressing while you're still in the hospital. We will give you instructions and a prescription for supplies for changing the dressing. Family members should also learn how to do the dressing changes.

When you go home with the catheter, you probably will not be connected to an IV. The end of the catheter will be closed and capped off. A solution will be injected into the catheter to prevent it from clotting. This solution must be injected into the catheter on a scheduled basis. The nurse will teach you how to inject the solution into your catheter using pre-filled syringes of heparin. You will be taught to look for signs of infection at the catheter site. These signs could include redness, a foul smell, swelling, drainage or unusual bleeding.

The doctor will give you a prescription to start on an oral medication called Coumadin. Coumadin is an anticoagulant used to prevent the formation of blood clots. You will be taking what is considered a "low dose" which will keep your central venous line open and free of clots.

If you have any questions about your catheter, please ask your nurse.

## Flushing Your Catheter

Flushing is injecting fluid into your catheter with a syringe. You will flush your catheter with a clear fluid called "heparinized saline solution." This is a germ-free salt-water solution containing a drug called heparin. Heparin keeps blood from clotting in your catheter. You will flush your catheter either once or twice a day, depending on the type of catheter.

### Supplies

- Alcohol swabs
- Prefilled Heparin syringes

### Flushing Your Central Catheter

1. Wash your hands with soap and water.
2. Gather supplies onto a clean, dry surface.
3. Clean the catheter connector of the PICC or Hickman with a clean alcohol pad and allow to air dry.
4. Push the tip of the syringe into the catheter connector and twist clockwise to lock in place.
5. Open the PICC or Hickman clamp.
6. Flush the line for 3-4 seconds and close the clamp while a small amount of heparin remains in the syringe. Continue to exert gentle pressure on the plunger. (This prevents blood from backing into the catheter and clotting it off.)
7. Detach the syringe from the connector.
8. Place syringe in a plastic bag to be returned to the doctor's office for disposal.
9. Secure the PICC or Hickman with tape or a wrap to prevent accidentally pulling on the catheter.

### **Do NOT reuse any syringes!**

If you have trouble flushing your catheter, do not try to force the solution in. Often just changing your position will help. Recheck to make sure you are unclamped. Try lying down, sitting up, leaning sideways, or raising your arm. The problem might be caused by the tube sitting next to the wall of the blood vessel. Most likely changing your position will shift the tube away and allow you to flush the catheter. If you still have problems, clamp the tube and call your doctor or one of your nurses.

## **Changing the Dressing**

Dressing changes are performed to clean your catheter and skin and to prevent infection. The dressing on your central line should be changed every 7 days. If the dressing becomes soiled or loose, it should be changed more frequently.

### **Supplies**

Alcohol/Betadine swabs  
2x2 gauze pad  
Tegaderm/Covaderm  
Paper or clear plastic tape

### **Changing the dressing**

1. Wash your hands.
2. Gather your supplies on a clean, dry surface.
3. Remove old dressing.
4. Inspect the PICC or Hickman insertion site for swelling, redness, or drainage. Notify your nurse if you notice these changes.
5. Clean the insertion site: Open the betadine swab package, remove the swab, and wipe gently in a circle around the insertion site, starting close to the site and working outward in overlapping spirals. Repeat with new betadine swabs two more times.
6. Repeat step #5, using alcohol swabs.
7. Place the 2x2 dressing over the site.
8. Remove the Tegaderm or Covaderm dressing from its package and remove the backing from the dressing to expose the sticky surface. Place the dressing directly over the gauze, sticky side to skin. Press firmly on the dressing edges to make sure all sides are tightly sealed. OR Secure 2x2 with 4 strips of paper tape.
9. Secure the catheter to prevent any pulling on the exit site.

## Possible Problems

The more you work with your catheter, the more comfortable you should become. Now and then you may have trouble with your catheter. This section of the booklet will tell you how to solve problems. If any of these problems happen often, or you have trouble fixing them, call your physician or nurse.

### Injection Cap Falls Off or Leaks

1. Check that the catheter is clamped.
2. Change the cap.

### You Can See Blood in your Tube

1. Flush your catheter as taught (see page 4).

### Catheter Breaks or Leaks

1. Clamp between your chest and the break in the catheter.
2. Cover the broken part with a sterile 2x2 gauze bandage and tape it. Do **not** touch the side of the gauze that will touch your catheter.
3. Go immediately to the nearest hospital or emergency room or to the doctor's office for repair of your catheter.

## Important Information to Remember

- All procedures must be done as cleanly as possible.
- Always secure the catheter to your body.
- Catheter site care starts on the first day after insertion and as your doctor or nurse directs.
- Acetone (i.e., nail polish remover) will dissolve the catheter and is never to be used on or near your catheter.
- Never use a hemostat, scissors, or any sharp-edged clamp, as they will cut the catheter.
- Your nurse should change the injection cap once a week.
- Call the Montana Cancer Center at (406) 728-2539 or St. Patrick Hospital 5 North at (406) 329-5811 to speak to a nurse if you have any questions.