

Tunneled Central Venous Catheter (CVC) Placement

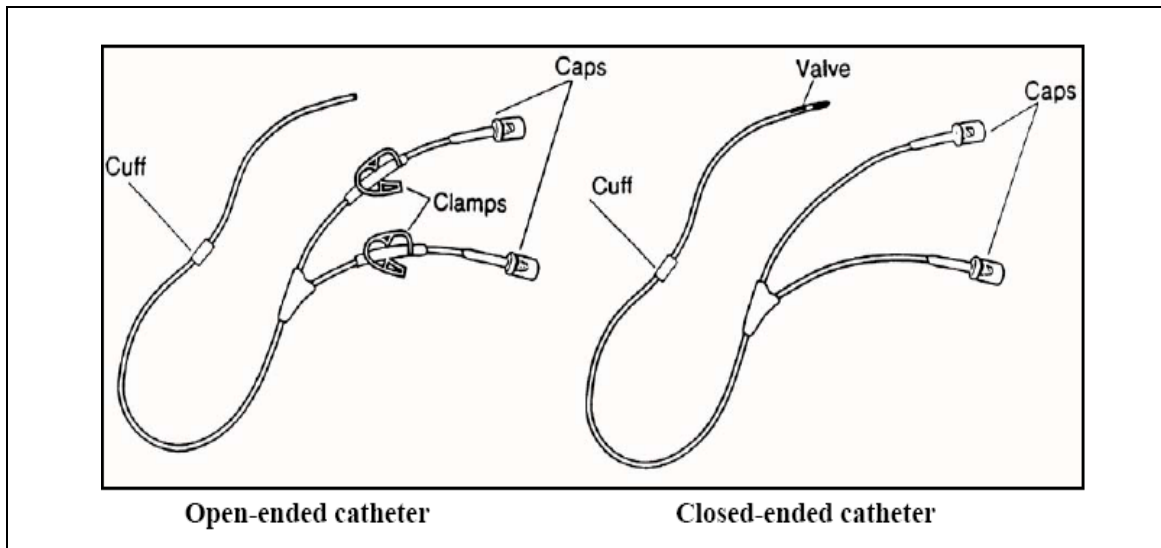
A tunneled **Central Venous Catheter (CVC)** is a special type of intravenous (IV) line that is placed into a large vein in your chest. A long, thin, flexible tube called a catheter is tunneled under your skin and then placed into the vein. You may hear this type of line called a Central line, PowerLine, Hickman, or an Apheresis Catheter.

A tunneled CVC can be used over a long period of time. It may stay in place as long as you need it and it is working well. The type of CVC and how it is used will depend on your needs.

A tunneled CVC may be used for:

- Chemotherapy treatment
- Taking blood samples
- Blood transfusions
- Giving IV fluids or IV medicines
- Hemodialysis
- Total Parental Nutrition (TPN)

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.



Types of Tunneled Central Venous Catheters

There are different types of tunneled CVCs. Your doctor will talk with you about which type is best for you.

- A tunneled CVC may have a small **cuff** around the catheter. The cuff sits inside the skin tunnel. It helps to secure the catheter in place and prevent infection.
- A long thin hollow tubing comes out of the skin called a **lumen**. A tunneled CVC may have one lumen (single) or can split into two or three separate lumens (double or triple lumens). An injection **cap** will cover the end of each lumen.
- **Open-ended catheters** have small clamps that close off the catheter when it is not in use. A Hickman or Apheresis catheter are types of open-ended catheters.
- **Closed-ended catheters** do not have clamps. Closed ended catheters have a special valve at the tip of the catheter that closes it off. A PowerLine is a type of closed ended catheter.

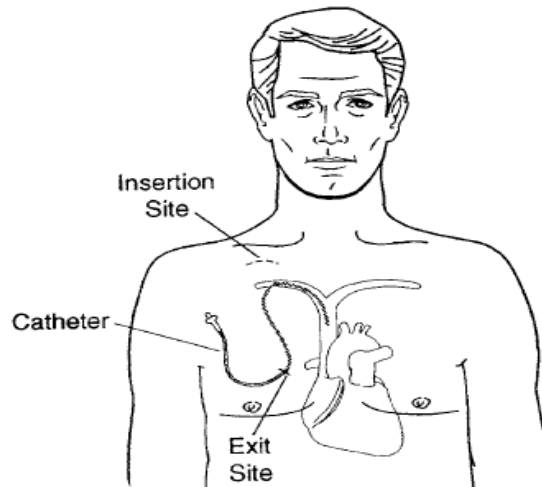
How is a Tunneled CVC Placed?

- A tunneled CVC can be put in by a doctor in the operating room or in the Radiology Department.
- An IV will be put into your arm. You will be given medicine to help you relax and you may feel drowsy.

- The skin on your neck and chest will be cleaned with a special antibacterial soap.
- A numbing medicine will be given to decrease any discomfort. This medicine will numb the skin on your chest, neck, and shoulder.
- Two small incisions are made during the procedure:

- ▶ One incision (**insertion site**) will be made at the bottom of your neck near your collarbone.

- ▶ A second incision (**exit site**) will be made on your chest a few inches above your nipple. This is where the catheter comes out of your body.



- A tunnel is then made under your skin between the two incisions. The catheter will be pulled through the tunnel and then put into a large vein just above your heart. This tunneling helps to hold the catheter in place.
- The incisions will be closed and held together by stitches, special surgical glue, or steri-strips (small tapes). Both incisions are covered with dressings. If it is long, the catheter line will be taped to your chest to help hold it in place.

What to Expect After a Tunneled CVC Placement

- You may have some bruising, swelling and tenderness where the catheter was put in. These symptoms should go away after 1 to 2 days.
- You may have some mild discomfort where the CVC was placed. Talk to your doctor about what you can do to help with any pain or soreness.
- Your incisions should heal in about 7 to 10 days.

- You will be told when to change to a new dressing.
- If the dressing becomes wet, loose, or falls off, put on a clean dressing and tape it securely in place. If you were not taught to perform the dressing change, contact your health care provider right away.
- Do not remove the incision steri-strips (small tapes). They will fall off on their own in about a week or more.

Activity Limits with Your Tunneled CVC

- A CVC should not change most of your daily activities. You do not need to wear special clothing.
- **Do not do strenuous exercises or activities for a few weeks to allow your incisions to heal.** These activities may cause the catheter to be pulled out. Talk to your doctor about any restrictions with activities, exercises, and sports with a CVC.
- You may take a shower with a tunneled catheter in place. You need to keep the dressing and the catheter area dry.
 - ▶ Each time you shower, cover the CVC site with a new piece of plastic wrap. Tuck all lumens of the catheter under the plastic wrap and tape the edges down. This keeps the dressing and catheter dry.
 - ▶ To reduce the chance of infection, use the same roll of plastic wrap to cover your CVC each time. Do not use this roll of plastic wrap for kitchen use or cooking.
- **Do not** take a tub bath, swim, or do activities that may cause the CVC site to become wet or dirty.
- **Do not use sharp objects like scissors or a razor near your CVC.**

How to Care for Your Tunneled CVC

Your CVC will need special care to keep it clean and working well. CVC care can be done by you, a caregiver, or a nurse. You and your caregiver will be taught how to care for your tunneled CVC before you go home.

This care includes:

- Cleaning the site and changing the dressing
- Flushing the lumen(s)
- Changing the cap(s)

Call for Emergency Help (911) if you have:

- Shortness of breath
- Trouble breathing
- Chest Pain
- Severe bleeding from your incisions (hold firm pressure on the area and call for help)

Call your doctor right away if you have any of the following:

- If your catheter accidentally pulls out. Cover the area securely with a clean bandage (dressing), hold pressure on the site and then call your doctor.
- Increased bleeding or drainage from the incisions
- Swelling of the face, neck, chest or arm on the same side where the CVC was put in
- Dizziness
- Increased bruising, tenderness, or redness at the incisions
- Chills or fever of 100.4 degrees Fahrenheit (38 degrees Celsius) or higher
- Increased pain at the incisions
- Any other problems with your catheter