How to Prevent Infections in Your Central Line

What is a Central Line?

A central line (also known as central venous catheter), is a catheter (tube) put into a large vein in your arm, neck, chest or groin to give you intravenous (IV) medicines, blood, fluids, nutrition or to collect blood for medical tests.

Because the line can stay in place for days or weeks, there is an infection risk. Bacteria (germs) can enter your body (through the insertion site on your skin or the cap through which fluids are given) and move through your bloodstream.

What Do Health Care Providers Do to Prevent Central Line Bloodstream Infections?

- The central venous catheter may be inserted at your bedside or in a procedure room. The doctors and nurses will clean their hands before putting in the catheter.
- A large drape will cover your entire body. If you cannot tolerate the drapes over your face, you will be asked to wear a mask and turn your head from the sterile area.
- A skin antiseptic will be applied to clean the skin near the insertion area.
- The health care provider inserting the catheter will wear sterile gloves, a sterile gown, cap and mask.
- The health care provider will choose the best site to reduce your risk of infection.
- A sterile dressing will be placed over the insertion site. The sterile drapes will be removed.

How Can You Help Prevent a Central Line Infection?

- Ask members of your health care team to clean their hands before touching you or any part of your central line.
- Ask members of your health care team to clean the catheter opening for 15 seconds.
- You may be asked to wear a mask and turn your head away from the catheter site during dressing changes.
- If your bandage comes off or becomes wet or dirty, tell your nurse right away.
- Tell your nurse if you have any redness, warmth, increased draining or pain at your IV site.
- Ask your doctor or nurse every day how long you will need the catheter (the sooner it is removed, the less likely the chance of infection).

How Can You Help Prevent an Infection at Home?

You may be sent home from the hospital with the catheter to continue your therapy.

Make sure you understand the instructions for your catheter before you leave the hospital.

- Ask the health care team for instructions on showering or bathing with the catheter and how to change the catheter dressing.
- Ask a member of your health care team to watch you or a family member change your dressing and flush your line.

- Always wash your hands with soap and warm running water for at least 15 to 30 seconds before and after handling your catheter. You may use an alcohol hand rub but be sure to let the alcohol dry.
- Prepare a clean work surface to create a sterile area for caring for your line.
- Change your dressings, caps and do flushes according to the directions you received.
- Change your dressing if it becomes, wet, soiled or loose, if it comes off, or if you have pain or discomfort under the dressing.
- Never reuse a cap that has been removed. Replace the cap with a new sterile cap.
- Scrub the cap with alcohol for 15 seconds. Use a twisting motion (like you are squeezing an orange) when scrubbing before flushing or connecting a syringe or IV tubing.
- Always cover your dressing with plastic and tape to protect the entire line and insertion site from water while you take a shower or bath.
- Check your line and insertion site every day (more often, if needed) for signs and symptoms of infection.
- Ask your doctor if blood may be drawn through your IV. Routine blood draws through your line may increase your risk of infection.
- Do not let visiting family members or friends touch the catheter or the tubing.
- Make sure family members and friends clean their hands with soap and water or an alcohol-based rub before and after visiting you.

When To Call Your Doctor

Call your doctor right away if:

- something with the line or insertion site does not look right
- you have problems flushing your line or if the IV seems to have been pulled out and is longer than usual
- you have any of the following at or around the IV site:
 - redness, swelling, tenderness or odor
 - pain or discomfort
 - warmth in the skin
 - bleeding or drainage
- you have fever or chills
- you have a drop in blood pressure (you feel dizzy or lightheaded, especially when you stand or sit).

When You Have an Emergency

Go to a hospital Emergency Department or an urgent care if you have:

- shortness of breath
- chest pain
- dizziness
- pain, swelling or numbness in your shoulder or arm.

Do not drive yourself. If no one is available to drive, call 911 or the emergency number in your area.

Information adapted from the Society for Healthcare Epidemiology of America; Infectious Diseases Society of America; American Heart Association; Association for Professionals in Infection Control and Epidemiology, Inc.; Centers for Disease Control and Prevention; and The Joint Commission.