

Hemodialysis Catheters: Preventing Infection

What is a hemodialysis catheter?

The catheter (tube) used for your hemodialysis is also called a central line or central venous catheter. It is placed in a large vein in the neck, chest or groin. From there it passes through the vein directly into the heart. Some may be temporary and used for a short period of time. Others may be used longer and left in place for weeks or even months.

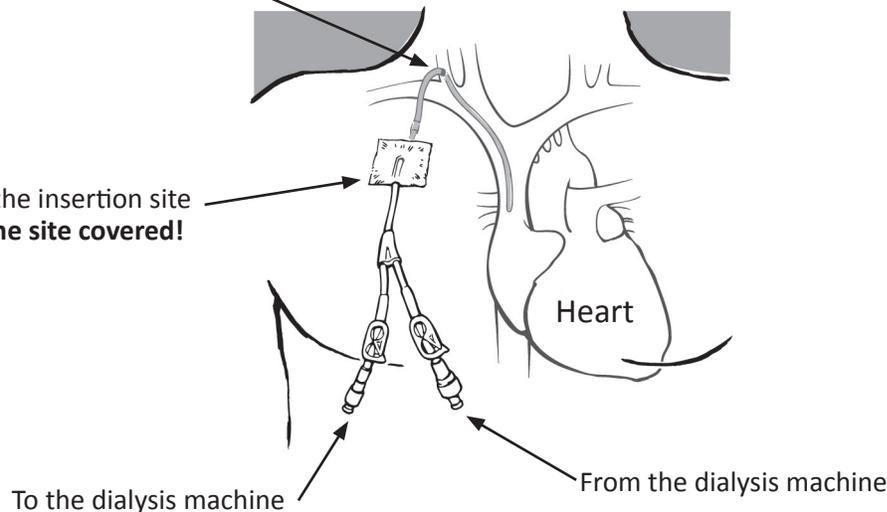
*Check your
dressing at least
once a day.*

Long-term catheters are tunneled under the skin. This keeps the catheter more secure and is less of an infection risk. The picture below shows how such a catheter is placed in the chest. However, no matter where it is inserted, it always ends up in a large vein close to the heart. A dressing covers the insertion site (where the catheter enters the skin.) The picture also shows how the catheter above the dressing is tunneled under the skin until it enters the vein that leads directly to the heart.

Some catheters may be used to give medication or fluids, or to draw blood. However, a dialysis catheter should **only** be used for dialysis. Unfortunately, there is a risk of infection with any type of central line. **An infection in the blood is serious and can cause severe medical problems.** This brochure will tell you how to prevent and recognize a central line blood infection.

The tunneled catheter enters the vein

Dressing over the insertion site
Always keep the site covered!



What is a central line blood infection?

A blood infection can occur when germs enter the blood through the catheter. Physicians follow a strict protocol to prevent infection during insertion. Staff also use sterile technique each time they use the catheter or change the dressing. **A central line blood infection can be life-threatening.** Therefore, it is important to take care to prevent infection.

How can I help prevent an infection?

Infections can be prevented. Follow these guidelines to help protect you.

1. Touching the catheter can introduce harmful germs that can cause infection. Avoid touching the catheter if possible.
2. There are times when the catheter must be handled. **Good hand cleansing** is the most important way to reduce the risk of an infection **before** handling the catheter or dressing.
 - a. Wash hands thoroughly with soap and water, or use an alcohol-based hand sanitizer.
 - b. Once your hands are cleansed, do not touch anything except your catheter. If you touch anything such as the telephone or furniture, you should wash your hands again before handling the catheter.
 - c. Speak up! Ask your caregivers (or anyone else) to cleanse their hands before touching your dialysis catheter or the dressing. They should also put on gloves after hand cleansing.
3. Any healthcare provider who handles the catheter must **also** use a mask and gloves before:
 - a. Accessing or handling the hemodialysis catheter.
 - b. Changing the dressing.Don't hesitate to remind your caregiver to put on a mask and gloves.
4. Do not let the dialysis catheter, dressing or insertion site get wet.
 - a. Never cover or soak the catheter or dressing in water.
 - b. Take extra care to keep the dressing dry when showering or taking a tub bath.Talk with your healthcare provider about other ways to protect yourself.
5. Check the dressing that covers the catheter every day. If it becomes dirty, wet or loose, or if it comes off, contact your healthcare provider right away for a sterile dressing change.
6. Check the skin around the dressing every day. Inform your healthcare provider if it is:
 - a. Red or tender (painful) to touch
 - b. Stinging or burning
 - c. Bleeding or draining any fluid

7. Your catheter should NOT be used to draw blood, or to give medications or fluids. Unless it is an emergency, your dialysis catheter should ONLY be used for dialysis. Please let any other healthcare providers know this, especially if they are new to your care.
8. Ask your healthcare provider how long you need to have this catheter. **For long-term dialysis**, it is better to have an AV fistula or graft to avoid the type of infection that may occur with a catheter. Or, you may wish to consider another type of dialysis. Ask your healthcare provider for more information about your options.

When to seek medical attention

Please contact your healthcare provider **right away** if you have:

- Tenderness or pain around the catheter site
- Signs of infection around the catheter site (redness, drainage, burning or stinging)
- Fever of 100.4 degrees F or higher
- Chills
- A catheter that falls out, breaks, cracks, leaks or has other damage. Do not use any sharp objects such as scissors or knives near your catheter.

Important! If the catheter is accidentally pulled out, apply pressure to the site to stop any bleeding. Cover the site with sterile or clean gauze until seen by your healthcare provider.

Northwestern Medicine – Health Information Resources

For more information, contact Northwestern Memorial Hospital's Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312.926.3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital's Patient Representatives Department at 312.926.3112, TDD/TTY 312.926.6363 or the Northwestern Medical Group Patient Representatives Department at 312.695.1100, TDD/TTY 312.926.6363.

Developed by: NMH Infection Control for Inpatient Dialysis