

Home Dialysis: Infection Prevention

Not all people who need dialysis must go to a hospital or dialysis center for their treatments. Many get their dialysis at home.

At-home dialysis treatments allow you to remain in a comfortable and familiar place. However, because it is an invasive medical treatment, there is an increased risk of an infection. We developed this brochure to teach you about the infection risks and how to reduce them. There is also a glossary at the end of this guide to explain some terms. The accompanying Zone Sheet reviews how to monitor for infections.

Review this brochure and the Zone Sheet with your home dialysis nurse and be sure to ask questions if you have any.

Home dialysis and infection risk

Peritoneal dialysis: If you are undergoing peritoneal dialysis, you will have a special catheter that was surgically implanted in your abdomen. This catheter allows a cleansing fluid to flow into the abdomen. The fluid stays in the abdomen for a set time and then flows out again, removing waste and excess fluids from your blood.

Hemodialysis: If you are on home hemodialysis, you will have an access point, usually a fistula. Two tubes are inserted into the fistula for each dialysis session. One tube allows blood to flow from your body and to the hemodialysis machine, where it is filtered. The cleaned blood then flows through the second tube back to your body.

Infection risk

A catheter or a fistula provides an unnatural opening in your body's skin. This increases your risk of a bacterial infection.

Why am I at risk for infection?

Chronic diseases like kidney disease or kidney failure weaken your body, making it harder for your immune system to fight infections. Undergoing dialysis adds to this risk because you have an open area (for the catheter or fistula), which can allow bacteria to enter your body.

If you go to a dialysis center or hospital to receive dialysis, there is always a risk of a healthcare-associated infection, or HAI. Staff in these facilities do their best to reduce the risk. There is also always a risk of getting a respiratory or other type of infection from other patients, visitors, or volunteers.

Having dialysis at home reduces the risk of contracting an HAI or infections from other people, but at-home dialysis does have its own infection risk. For this reason, you must take extra care to protect yourself.

If you contract an infection, you may have to take an antimicrobial medication to treat it, like an antibiotic or antiviral. If this happens, it's important to take the prescription as indicated, not only to help get rid of the infection, but to prevent the growth of antimicrobial resistant infections (superbugs that are difficult or impossible to treat with the medications we currently have).

How do I reduce the risk of getting an infection at the catheter or fistula site?

- Always wash your hands well with soap and water, and wear gloves before touching the site.
- Keep all your supplies in a dedicated clean, dry place.
- Reserve one spot in your home for your treatment. Keep this area as clean as possible, limiting who can enter.
- Check the site every day for signs of infection. Contact your dialysis nurse or team right away if you see any signs, such as redness, pain, swelling, pus, or skin that is warm to the touch.
- If you are peritoneal dialysis and your abdomen hurts, the fluid dialysis fluid looks cloudy, or has a different color when it drains, or you have nausea or vomiting, contact your dialysis nurse or team right away.
- Clean the site carefully but thoroughly, according to the method and schedule provided by your dialysis nurse.
- Always use a clean cloth or towel, never using it before or after on another part of your body.
- Apply antibiotic ointment if prescribed.
- After each treatment, protect the catheter or fistula site as you have been taught by your dialysis nurse.

What can I do to reduce the risk of antimicrobial resistance (AMR) if I develop an infection?

We all have an essential role in slowing down the number of germs that become drug-resistant. This is what you can do to help when taking antimicrobials for a site infection:

- If you don't start to feel better after a few days or if the infection seems to be getting worse, contact your doctor right away. You may need a different drug.
- Always finish your prescription, even if you feel better before the medication is finished.
- Never take someone else's antimicrobials, even if you think you have the same infection.
- Don't insist on antibiotics if you don't have a bacterial infection. For example, antibiotics do not help a cold or the flu go away.
- Make sure that your medication is in-date. If you do not finish medication before it expires (possibly due to a missed dose), contact your doctor.

To learn more about antimicrobial resistance, visit [EndSuperbugs.org](https://www.endsuperbugs.org).

Glossary:

Antimicrobials: Medications that stop or kill germs such as bacteria, viruses, fungi, or parasites.

Antibiotics: Antimicrobials that stop or fight bacteria.

Antivirals: Antimicrobials that stop or fight viruses.

Catheter: A thin plastic tube that provides or removes fluid from the body.

Cellulitis: Infection and inflammation of the skin.

Chronic illness: A disease or condition that lasts more than a year.

Dialysis: A process that replaces or aids your kidneys in removing waste products and excess fluids from the blood.

Fistula: A connection between a vein and artery.

Sepsis: The body's extreme response to an infection that can cause life-threatening complications.

To learn more, visit [Sepsis.org](https://www.sepsis.org).

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