

How can you protect yourself from infections?

Your Infection Prevention Guide



www.esrdncc.org



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PREVENTING AN INFECTION IS AN IMPORTANT PART OF YOUR KIDNEY CARE

There are many things you can and should do to make sure you are protecting yourself. This guide tells you how to prevent an infection.

Please visit the ESRD National Coordinating Center website <http://esrdncc.org> to find other important resources to help you learn more about this topic:

- **Know the Facts on Infection** Explains in detail what an infection is.
- **How Do You Get an Infection? What You Need to Know to Protect Yourself!** Explains how infections spread and why, as a person with kidney disease, you are at greater risk for getting an infection.

If you are prepared with the facts, you will know the right things to do to protect yourself from an infection. **YOU are the first line of defense.** You should also share these practices with other patients and staff at your dialysis center to help

build a safer environment for patients. This information has been put together with the help of persons living with kidney disease, concerned dialysis staff members, and infection experts. We hope the facts in this booklet will improve your understanding and give you the tools to speak up if, when you are in treatment, you see something that may cause an infection.

Germs are everywhere, including patient care settings, whether at the dialysis center or at home. Everyone, including patients and medical staff, has germs on their skin, on their hands and inside their noses. Germs also live on surfaces such as hemodialysis machines and bedside tables. In small numbers, germs rarely cause problems. In fact, your body always carries certain types of germs known as bacteria, which are in places such as your stomach and bowels.

However, when otherwise harmless germs grow and multiply or are overtaken by harmful bacteria, infections develop. According to the Centers for Disease Control and Prevention (CDC), infections are the second leading cause of death among dialysis patients and can, at the very least, cause serious complications.

Infections can be very serious, so the sooner you act the better. Now that you know how you can get an infection, learning how to protect yourself is the first important step in staying as healthy as possible.

THINGS YOU CAN DO

There are five important things you can do to protect yourself from getting an infection or stopping one before it becomes serious. We have listed these below and will review each of these in detail later in this guide.

- 1. Keep your hands clean** and ask your caregivers, medical practitioners, family and friends to do the same. Cleaning hands helps prevent germs from spreading. You should clean your hands at specific times when you are at the greatest risk of being exposed to germs. Hand cleaning can be done in different ways.
- 2. Get vaccinated.** Your medical practitioner will suggest certain shots to help prevent infection like one for the flu or pneumonia. These shots are important to help you stay well.
- 3. Watch and report any signs of an infection as soon as possible.** Identifying and treating an infection early is key to fighting it and will help you get well more quickly.
- 4. Be involved in your care.** If you know and follow the rules to protect yourself from infection, you can ask those who take care of you to do the same.
- 5. Take care of your dialysis access site.** If you are on dialysis, either hemodialysis and peritoneal, taking care of the site that is used to access your blood for hemodialysis or your belly for peritoneal is very important to preventing infection.



KEEP YOUR HANDS CLEAN

Clean your hands before every dialysis treatment, before eating, and after using the restroom. There are two ways to clean your hands: using an alcohol-based cleaner (also known as hand sanitizer or disinfectant gel) or using soap and water. If your hands look dirty, you should use soap and water to clean them.

- 1. When using an alcohol-based cleaner**, apply enough cleaner to cover all surfaces and rub entire palms, hand and finger surfaces, including the backs of the hands, the backs of fingers and between fingers until dry. Make sure that your sanitizer is labeled as antibacterial and that the sanitizer stays wet on your hands for 15 seconds. If using a hand sanitizer try counting to 30 so you know when 15 seconds have passed.
- 2. When using soap and water**, first wet your hands, and then apply enough soap to clean all hand surfaces. Rub all surfaces, paying special attention to the backs of the hands, the backs of fingers and between fingers. Don't forget to clean under your fingernails.

TIP: To make sure that you have spent enough time washing your hand surfaces with soap and water, a good rule of thumb is to sing two rounds of "Happy Birthday" while washing your hands. Rinse and dry thoroughly. Use a new paper towel to turn off the faucet.



WASH YOUR HANDS REGULARLY

Here are some examples of when you should wash your hands:

- Before, during, and after preparing food
- Before eating food
- Before and after caring for someone who is sick
- Before and after treating a cut or wound
- After using the toilet
- After changing diapers or cleaning a child who has used the toilet
- After blowing your nose, coughing, or sneezing
- After touching an animal or animal waste
- After handling pet food or pet treats
- After touching garbage.

KEEP YOUR ACCESS CLEAN

Before dialysis, wash your fistula or graft access using a gentle circular motion on and around it. Rinse your hands and the site well. Using a paper towel, dry your access first, then your hands. Use a new paper towel to turn off the faucet.

GET VACCINATED

Vaccinations (or shots) recommended for kidney dialysis patients are: Influenza (flu), pneumococcal (pneumonia), and hepatitis B.

Influenza (Flu):

Many people get the seasonal flu every year. Although there are cases where people can become extremely ill or even die, the flu is something that most healthy humans can fight with time, medicine, and rest. People living with kidney disease may not have a strong enough immune system to fight the illness.

Here are important facts you should know about the flu:

- Influenza (the flu) is a contagious respiratory illness caused by influenza viruses.
- Each year over 36,000 people in the United States die because of the flu—most are 65 or older or have chronic health conditions. Source: Centers for Disease Control and Prevention <http://www.cdc.gov>
- The flu shot CANNOT cause the flu.
- Studies have shown that the flu shot is close to 90% effective.
- The best time to get vaccinated is October or November, but you can still get vaccinated in December or LATER.
- As a dialysis patient, if you get the flu you are more likely than others to develop serious problems. Because of this, dialysis patients are strongly urged to get vaccinated every year.
- Each year there are different types of Influenza vaccinations available; some are better suited for ESRD patients. Before you get your shot, ask your medical practitioner to tell you the type of Influenza vaccination that is best for you.





Pneumonia:

Pneumonia is a serious problem for anyone who has it and life-threatening to someone with kidney disease. In healthcare facilities you are in close contact with many other persons who may be sick. Here are important facts you should know about pneumonia:

- Pneumococcal disease is caused by bacteria. It can lead to serious infections of the lungs, blood, and the covering of the brain.
- More people die from pneumonia than all other vaccine-preventable diseases combined.
- About one out of every 20 people who get pneumonia dies from it.
- The pneumonia shot can be given ANY time of year.
- The pneumonia shot protects against many types of pneumonia germs.
- There are different time intervals that are recommended for pneumonia vaccination. Ask your practitioner for the schedule of vaccinations that is right for you.

Hepatitis:

As a kidney patient on hemodialysis or peritoneal dialysis, you are more likely to come in close contact with the blood and/or body fluids of other people. Hepatitis B is spread by coming in contact with blood or body fluid from someone who has this virus. It is a serious infection that can be very dangerous, even life-threatening.

- Hemodialysis patients are at an increased risk of hepatitis B viral infection.
- The hepatitis B vaccine is safe, effective and your best protection against the virus.
- The hepatitis B vaccine is usually given in a series of three injections over a six-month period.
- The hepatitis B vaccine can prevent hepatitis B and also protects against a form of liver cancer caused by hepatitis B.

WATCH AND REPORT SIGNS OF INFECTION

Your body responds to infection in different ways. If your access site is infected, redness and tenderness (inflammation) are signs that increased blood flow is bringing antibodies to the area to fight the invading germs.

Sometimes the body's response to invading germs is a fever. While the fever shows that your body is fighting the infection, it does not kill all the germs. Infections must be treated with medications such as antibiotics and antivirals. A persistent cough that brings up mucus may indicate an infection in your lungs. If you have diabetes, you may have a higher risk of infection if you have a cut or sore, so pay attention to open sores on your body. Check your feet and hands for any redness or swelling.

FIGHTING AN INFECTION

Your body has a protection system that helps fight infections, called the "immune system." The immune system of a person with kidney disease does not work as well as the immune system of someone who does not have kidney disease. For that reason it's harder for you to fight infection.

If you think you have an infection it is important to take action quickly:

- Talk to your medical practitioner about how you are feeling and any signs or symptoms you have.
- Make sure to follow the directions for any treatments or medications your healthcare team prescribes.
- If any of your symptoms get worse, or if you notice more symptoms, contact your healthcare team right away or seek other medical care.

Tip: Make sure you keep a current list of your healthcare team's contact information, including how they can be reached during off hours or holidays.



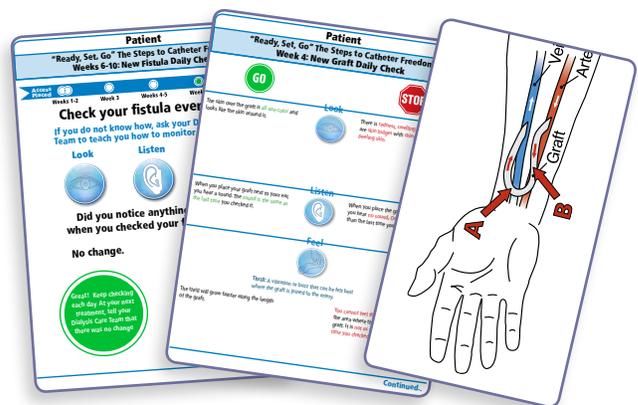


TAKE CARE OF YOUR DIALYSIS ACCESS SITE

- Wash your dialysis site before each dialysis treatment, using the sink indicated for patients. If you are not sure which sink to use, ask a staff member.
- Use a clean paper towel to dry your access and another clean paper towel to turn off the faucet.
- Do not replace clothing over your access after you have washed it.
- Keep your hands away from the access site. Never scratch or pick at the site, and don't remove any scabs at the site.

Ask your healthcare practitioners if you can take showers or swim in a pool. Some access types (like catheters) do not allow for this. A wet dressing can become a magnet for germs to breed. Inform a nurse or doctor right away if the bandage around an access site becomes wet or dirty.

Every Day
1. Do daily checks of your hemodialysis access.



2. Recognize and report signs of infection to your medical practitioner as soon as possible.

Signs of infection may include

- Fever
- Chills
- Nausea, vomiting
- Body aches
- Red/swollen or hot area on your skin

BE INVOLVED WITH YOUR CARE

Speak up! Do not hesitate to tell your healthcare team when you are feeling poorly or have a concern. Always tell your healthcare team if you have any symptoms of infection, no matter how small or minor they may seem. Talk to your doctor about any worries you have about your safety and ask what he or she is doing to protect you. Ask your healthcare team to explain procedures and what they're doing to prevent infection.

Tip: Keep your hands clean and ask your caregivers and your healthcare team to do the same.

If you notice someone has not washed their hands before treating you ask him or her to do so in a polite manner. Cleaning hands will help prevent the spread of germs.



HELP YOUR CARE TEAM REMEMBER THE FIVE MOMENTS FOR HAND HYGIENE

TIP: Ask your care team members if they know the “FIVE MOMENTS FOR HAND HYGIENE.” If not make a copy of this resource and hand it out.

1. BEFORE TOUCHING A PATIENT

- **WHEN?** Clean your hands before touching a patient.
- **WHY?** To protect the patient against harmful germs carried on your hands.

2. BEFORE CLEAN/ASEPTIC PROCEDURE

- **WHEN?** Clean your hands immediately before performing a clean/aseptic procedure.
- **WHY?** To protect the patient against harmful germs, including the patient’s own, from entering his/her body.

3. AFTER BODY FLUID EXPOSURE RISK

- **WHEN?** Clean your hands immediately after a procedure involving exposure risk to body fluids (and after glove removal).
- **WHY?** To protect yourself and the environment from harmful patient germs.

4. AFTER TOUCHING A PATIENT

- **WHEN?** Clean your hands after touching the patient at the end of the encounter or when the encounter is interrupted.
- **WHY?** To protect yourself and the environment from harmful patient germs.

5. AFTER TOUCHING PATIENT SURROUNDINGS

- **WHEN?** Clean your hands after touching any object or furniture in the patient surroundings when a specific zone is temporarily and exclusively dedicated to a patient even if the patient has not been touched.
- **WHY?** To protect yourself and the environment from harmful patient germs.

World Health Organization

<http://www.who.int/en/>



THINGS DIALYSIS STAFF DO TO PROTECT YOU FROM INFECTIONS

- All dialysis staff members should WASH their hands, either with soap and water or alcohol-based hand gel before touching you. Hand washing is the single most important thing anyone can do to decrease the spread of germs.
- Keep the center clean, including all dialysis equipment, chairs, stethoscopes, blood pressure cuffs, thermometers, etc.
- Wear personal protective equipment (face shields, masks, gloves, and gowns) to protect both you and themselves from the spread of infections.
- Use caution when working with your dialysis access to ensure that the site remains clean and to reduce the chance of germs entering the access site.
- Monitor the water used for dialysis to make sure it is safe and free of bacteria.
- Monitor vaccinations to ensure that both patients and staff are protected from the flu, pneumonia, and hepatitis.

Tip: Make sure medications are given to you in a clean and safe manner.

TIPS ON TALKING ABOUT INFECTION PREVENTION

Things Patients Should Say...	Important Steps for Staff	Why this is Important
"To help me stay safe, would you wash your hands before you touch me?"	Wash hands with soap and water or alcohol gel upon entering dialysis station.	Prevents bacteria from entering a catheter directly or getting into the vein through the opening in the skin.
"To help me stay safe, would you put on your mask, gown, and gloves?"	Put on gloves, mask, and gown before initiating dialysis.	Gloves: Prevent bacteria being pushed into the patient's bloodstream by the needle. A mask: Prevents the spread of bacteria from a staff member's nose or mouth into the access site. A gown: Prevents bacteria contamination of staff member's clothing and skin.
"To help me stay safe, don't forget to clean my skin before putting the needles in. I washed my access before I sat down but the area where you put the needles needs to be cleaned again."	Disinfect your skin before inserting needles.	Prevents bacteria from getting into bloodstream through the skin (most common bacteria live on skin and mucous membranes).
"To help me stay safe, would you use disinfectant to clean my access in the areas where the needles will go?"	Do not touch other surfaces with cleaned skin.	Prevents bacteria from getting into bloodstream through the skin (most common bacteria live on skin and mucous membranes).
"I noticed you just touched the machine. Would you mind re-gloving before you remove my needle?"	Change gloves after stopping dialysis machine and before removal of needle.	Prevents bacterial contamination from the machine entering bloodstream.



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