About Hemodialysis

Hemodialysis means “cleaning the blood”. Blood is moved through a machine with a special filter called a dialyzer. The dialyzer removes toxins, excess fluids and corrects electrolytes. The clean blood is then returned to your body. Dialysis helps to control your blood pressure and balance important electrolytes like potassium.

The dialyzer is a large tube that has thousands of small fibers which your blood passes through. Dialysis solution, the cleaning fluid, is pumped around these fibers. The fibers allow waste and extra fluids to pass from your blood into the fluid that carries them away. The dialyzer is sometimes called the “artificial kidney”.

Location
Hemodialysis can be done in a hospital, a dialysis center, or even in your home. You and your doctor will decide which place is best for you.

Length of Hemodialysis Treatments
The treatments usually take about 3-4 hours and are done 3 times a week. The treatment time depends on:

- How much your kidneys are working.
- How much fluid weight you gain between treatments.
- How much do you weigh.
- How much waste you have in your blood.

Symptoms
Symptoms like cramps, headaches, nausea or feeling dizzy can occur but are not common. If you have these symptoms let your care team know so they can help you. Following your diet and fluid limits will help. Going over your limits will increase the amount of fluid that must be removed during treatment. Too many liquids can also cause severe shortness of breath. Removing extra fluid during dialysis may make you feel sick, so do your best to manage your fluid limits between treatments.

Lifestyle Changes
You will need time to get used to dialysis and your treatment schedule. The social worker will talk with you about how to adjust to the changes. Once you have adjusted, you should feel a lot better and have more energy for things you enjoy.

Emergencies
In an emergency, your safety is our first concern. In case of a fire, a tornado, or other emergency, we have a plan to respond quickly and carefully. Dialysis staff will help you if an evacuation becomes necessary.

You can help by staying calm and listening closely. The quicker all of us respond, the safer it is for everyone.

Tips for Travel to and From Dialysis

- Before you begin the trip, be sure to have these supplies with you: a blanket and pillow for rest, emesis basin, Band-Aids, 4x4 gauze pads, and a bottle of drinking water.
- Make sure clothing allows an easy approach to your dialysis access.
- Bring any special cushions you sit on along as well.
- Eating during dialysis is frequently not allowed. Please plan accordingly. You can drink fluid with low potassium content like apple juice,

but it should be within your limit fluid intake.
- **Avoid** eating a heavy meal before dialysis. This can lead to low blood pressure during treatment.

When you arrive, staff check your vital signs and weight, and screen you for safety to undergo treatment. Let them know right away if you are not feeling well.

During Treatment
Preparation. Your weight, blood pressure, pulse and temperature are checked. The skin covering your access site — the point where blood leaves and then reenters your body during treatment — is cleansed.

Starting. During hemodialysis, for fistula or graft- two needles are inserted into your arm through the access site and taped in place to remain secure. Each needle is attached to a flexible plastic tube that connects to a dialyzer. For Central Venous line catheter; catheter hub will be cleaned first before connecting it to the flexible tube. Through one tube, the dialyzer filters your blood a few ounces at a time, allowing waste and extra fluids to pass from your blood into a cleansing fluid called dialysate. The filtered blood returns to your body through the second tube.

Monitoring. Because blood pressure and heart rate can fluctuate as excess fluid is drawn from your body, your blood pressure and heart rate will be checked several times during each treatment.

Finishing. When hemodialysis is completed, the needles are removed from your access site and a pressure dressing is applied to the site to prevent bleeding. If you are using a catheter, tubing will be disconnected from the port and lines are flushed. Your weight may be recorded again. Then you're free to go about your usual activities until your next session.

You should not feel any discomfort. Please let the staff know right away if you feel dizzy, cramping, or nausea. These can all be symptoms of taking off fluid too fast. Staff can make changes to help you feel better and may give you IV (intravenous) fluids. We may recline your chair. It is common for people to sit with their feet up to support blood pressure.

After Treatment
We need to know if you are not feeling well in any way. Your vital signs and weight will be rechecked. Blood pressure will be checked while sitting and standing. Big drops in blood pressure can mean that too much fluid was taken. We may give IV fluids to fix this or ask you to sip water to replenish you.

After dialysis, watch for:
- **Bleeding at the needle sites.** If bleeding, place firm direct pressure on the site for 15 minutes. Do not remove pressure during the 15 minutes. Check the site. If needed, replace the 4x4 gauze pads until the bleeding stops. If the bleeding continues, press on the site for another 15 minutes. If bleeding continues, have someone take you to an emergency room. Do not drive yourself.
- **Remove dressings from needle sites after 6 hours.** Do not leave dressings on overnight.
- **Low blood pressure.** You may notice signs of low blood pressure. This might be shaking, blurred vision, dizziness, feeling lightheaded, or nausea. Lay as flat as

you can. Sip liquids. Do not eat if you are feeling lightheaded. If you are driving, pull over right away and do not continue to drive. Put on your flashing lights to signal for help and call 911.

- **Nausea and vomiting.** Sit up and use an emesis basin. When able, drink clear soda or water.

To feel your very best, follow your treatment plan as closely as possible. Try not to miss any treatments. Make sure to complete your full treatment time. Report all medical changes to your dialysis staff when you arrive for treatment. If you feel unwell now or after your previous treatment, tell them.

Questions to Ask

Please ask any questions you have. Make sure you ask your kidney doctor, dialysis nurse, or dietitian these questions:

- How much fluid can I drink every day?
- What foods should I avoid in my diet?
- Are there foods I should try to eat more of?
- When should I take my blood pressure medications on dialysis days?

Please share your thoughts and concerns with the dialysis staff. We are here to help you. And just a friendly reminder, please be respectful of all patients and staff at the clinic.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 5/2025. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5043