

What I need to know about Living with Kidney Failure



National Institute of
Diabetes and Digestive
and Kidney Diseases

**ADULT UROLOGY &
PEDIATRIC
UROGYNECOLOGY**

What I need to know about Living with Kidney Failure

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What is kidney failure and how is it treated?

Kidney failure means your kidneys no longer work well enough to do their job. You need treatment to replace the work your damaged kidneys have stopped doing. The treatments for kidney failure are

- **hemodialysis***
- **peritoneal dialysis**
- a kidney transplant

Your kidneys filter wastes and extra fluid from your blood to keep you healthy. The wastes and extra fluid become urine that is stored in your bladder until you urinate. When your kidneys fail, dialysis can take over a small part of the work your damaged kidneys can no longer do. You can make treatments work better by

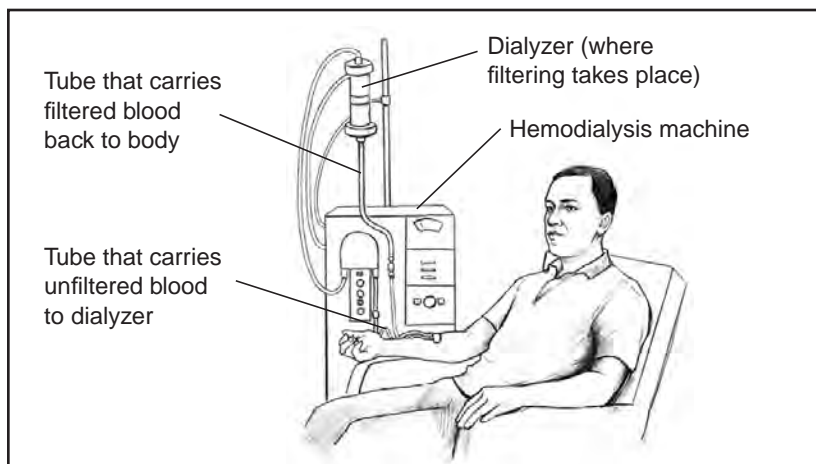
- sticking to your treatment schedule
- taking all medicines your doctor prescribes
- following a special diet that keeps wastes from building up in your blood
- being active most days of the week

*See the Pronunciation Guide for tips on how to say the words in **bold** type.

Hemodialysis

Hemodialysis is a treatment for kidney failure. Hemodialysis uses a machine to filter your blood outside your body. First, a dialysis nurse places two needles into your arm. A pump on the hemodialysis machine draws your blood through one of the needles into a tube. The tube takes the blood to a filter, called a **dialyzer**. Inside the dialyzer, your blood flows through thin fibers that are like straws. The wastes and extra fluid leave the blood through tiny holes in the fibers. Then, a different tube carries the filtered blood back to your body through the second needle.

Read more in *Treatment Methods for Kidney Failure: Hemodialysis and Home Hemodialysis* at www.kidney.niddk.nih.gov.

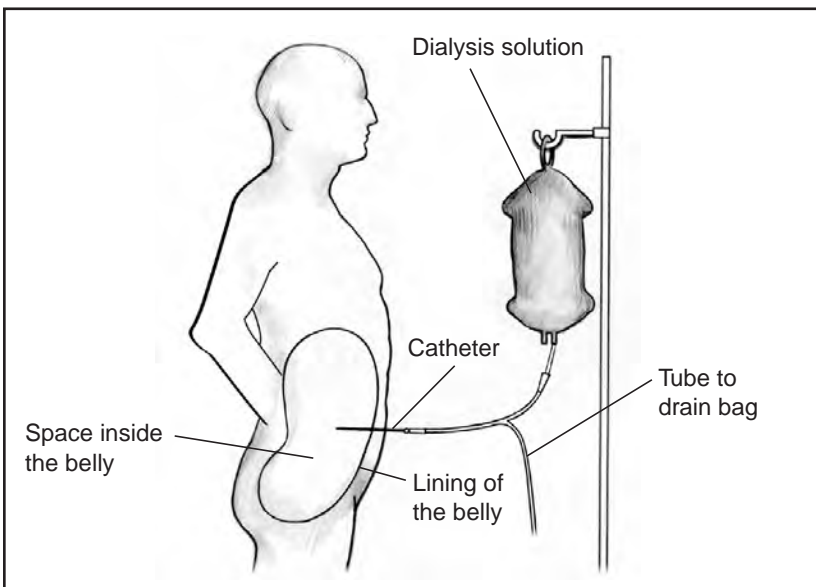


Hemodialysis

Peritoneal Dialysis

The other form of dialysis, called peritoneal dialysis, uses the lining of your abdomen, or belly, to filter your blood inside your body. A doctor places a soft tube called a **catheter** in your belly a few weeks before you start peritoneal dialysis. You empty dialysis solution from a plastic bag through the catheter into the empty space inside your belly. The dialysis solution soaks up wastes and extra fluid from your body. After a few hours, you drain the used dialysis solution into another bag. Then you start over with a fresh bag of dialysis solution.

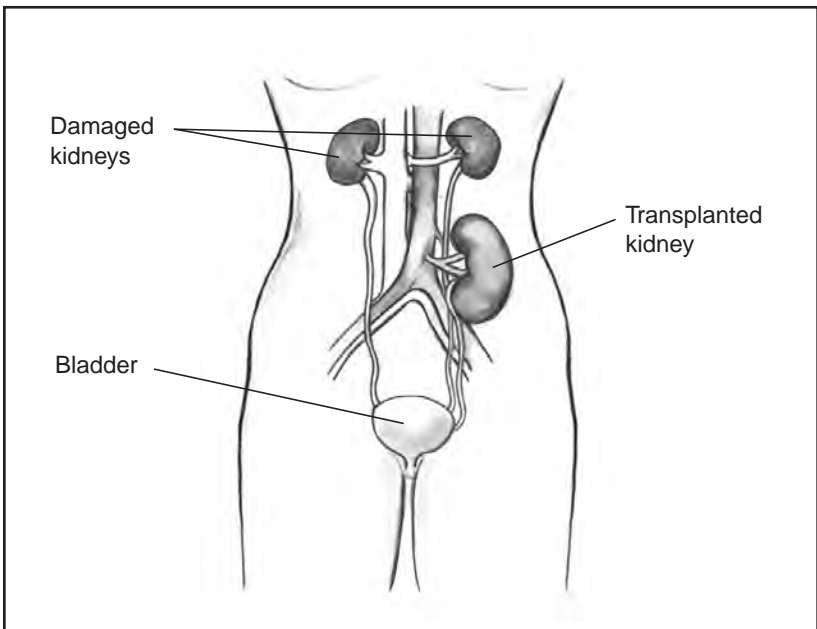
Read more in *Treatment Methods for Kidney Failure: Peritoneal Dialysis* at www.kidney.niddk.nih.gov.



Peritoneal dialysis

Kidney Transplant

A kidney transplant places a healthy kidney from another person into your body. The kidney may come from someone who has just died. Your doctor will place your name on a waiting list for a kidney. A family member or friend might be able to give you a kidney. Then you don't have to wait.



Kidney transplant

The new kidney takes over filtering your blood. The damaged kidneys usually stay where they are. The new kidney is placed in the front lower abdomen, on one side of the bladder. Your body normally attacks anything that shouldn't be there, such as bacteria. Your body will think the new kidney shouldn't be there. You will take medicines called **immunosuppressants** to keep your body from attacking the new kidney.

Read more in *Treatment Methods for Kidney Failure: Transplantation* at www.kidney.niddk.nih.gov.

How should I choose the treatment that's right for me?

Learning about different treatments for kidney failure will help you choose the one that best fits your lifestyle. Talk with your doctor and people on hemodialysis or peritoneal dialysis to learn about the pros and cons of each treatment. Ask your doctor about the transplant waiting list and about medicines required after a transplant. Talk with people who have had kidney transplants and ask how it has changed their lives.

If you plan to keep working, think about which treatment can help make that easier. If spending time with family and friends means a lot to you, learn about which treatment may give you the most free time. Find out which treatment will give you the best chance to be healthy and live longer.

Talking with your doctor ahead of time about your options can help you take control of your care. Understanding the treatment you choose and getting used to the idea that you will be receiving this treatment takes time. If you choose one type of dialysis treatment and find it is not a good fit for your life, talk with your doctor about selecting another type of dialysis treatment that better meets your needs.

While kidney failure can make your life harder, treatments can help improve your life.

How will kidney failure affect my life?

Kidney failure will affect your life in many ways. You may find you cannot do all the things you used to do at home or at work. You may have less energy and may feel depressed. Physical problems may include

- ankle or belly swelling
- stomach sickness
- throwing up
- loss of appetite
- feeling tired
- weakness
- confusion
- headaches

Having kidney failure does not have to take over your life. Having kidney failure does not have to mean giving up hobbies, work, social activities, or time with family.

Can I continue to work with kidney failure?

Yes, many people with kidney failure continue to work. Your employer may give you lighter physical jobs or schedule your work hours around your hemodialysis sessions. If you are on peritoneal dialysis, you will need space and time to change the dialysis solution in the middle of the work day. Most employers are happy to make these changes.



Many people with kidney failure continue to work.

As a result of the Americans with Disabilities Act, an employer cannot fire you because you are on dialysis or had a kidney transplant. The law requires an employer to make reasonable adjustments to the workplace for a person with a disability. If your employer is not willing to meet your needs, your dialysis clinic's **renal** social worker may be able to help find a way to satisfy both you and your employer. As a last resort, you may need to file a complaint with the Equal Employment Opportunity Commission. Your renal social worker may be able to help you with this complaint, or you may need the help of a lawyer. Many times, just the mention of legal action is enough to cause an employer to make reasonable changes in the workplace.

Can I be active with kidney failure?

Yes. Physical activity is an important part of staying healthy when you have kidney failure. Being active makes your muscles, bones, and heart stronger. Physical activity also makes your blood circulate faster so your body gets more oxygen. Your body needs oxygen to use the energy from food. If you are on dialysis, physical activity can help more wastes move into your blood for dialysis to remove them.

You will find that physical activity can also improve your mood and give you a sense of well-being.



Physical activity is an important part of staying healthy when you have kidney failure.

Talk with your doctor before you start an exercise routine. Start slow, with easier activities such as walking at a normal pace or gardening. Work up to harder activities such as walking briskly or swimming. Aim for at least 30 minutes of exercise most days of the week.

Where can I find help for coping with kidney failure?

When you start dialysis or are referred to a transplant center, you will meet many people who can help you. These people make up your health care team. Your health care team can help you with the emotional and physical problems and changes caused by kidney failure. Asking for help is not a sign of weakness. Talk with your family, friends, and health care team about your concerns.

Doctor. Your doctor can help you with many of the physical and emotional health problems caused by kidney failure. You will see your doctor often as you start dialysis or recover from transplant surgery. After a while, you will see your doctor regularly, though less often than at the beginning of treatment. If you have a transplant, you will see your doctor once or twice a month during the first 6 months after your transplant surgery. Then, if everything goes well with your new kidney, you only need to see your doctor once every 6 months.

Dialysis nurse. If you receive hemodialysis at a dialysis center, your dialysis nurse will oversee your treatment. The nurse will take your blood pressure, pulse, and temperature; watch your breathing; and explain your lab results. Your dialysis nurse will also make sure you are taking your medicines correctly and can help you find ways to lessen the side effects of dialysis. If you do home hemodialysis or peritoneal dialysis, your dialysis nurse will teach you how to set up your treatment, take care of the equipment, and watch for infections or other problems.

Transplant coordinator. Transplant coordinators work with people who need a transplant. They are usually nurses with special training in transplantation. Your transplant coordinator guides you through the transplant process, from setting up your first physical exam and getting you on the kidney transplant waiting list to calling you when a matching kidney has been found and preparing you for transplant surgery. The transplant coordinator also works with you after transplant surgery by

- scheduling your follow-up care
- teaching you how to care for and protect your new kidney
- helping you find ways to cope with the side effects of medicines

Renal dietitian. Renal **dietitians** help you learn about your nutrition needs and why you must avoid or limit certain foods. A renal dietitian will help you plan healthy meals you will enjoy. See the section “Eating, Diet, and Nutrition” for more information about nutrition for people with kidney failure.

Renal social worker. Dialysis centers have a social worker, called a renal social worker, who works with people on dialysis or who have transplants. Your renal social worker can help you find answers to problems such as

- keeping a job or changing jobs
- getting help with financial issues
- finding services to help with transportation or chores around the house
- finding counseling services to deal with family or couples’ problems

Mental health counselor/psychiatrist. Your health care team may recommend you see a mental health counselor or a **psychiatrist**. A mental health counselor can help with depression and other mental health issues by talking with you and suggesting ways to deal with stress and unhealthy thoughts and behaviors. A psychiatrist is a doctor trained to help people with mental health issues such as depression and to prescribe medicines, if needed.

Family and friends. Your health care team members are not the only people who can help you cope with the problems and changes caused by kidney failure. Having a strong support system of family and friends can make it easier to deal with problems and life changes. Now is not the time to stop seeing your friends. Make a point to spend time with friends or keep in touch with them by phone or email. Attend social functions and community events.

You. You can improve the quality of your health care by letting your health care team know how you want to be treated. Don't hesitate to ask questions when your doctor or nurse tells you something you don't understand. Let your dialysis nurse know if you feel light-headed or sick to your stomach during dialysis. If you do home hemodialysis or peritoneal dialysis, tell your dialysis nurse about any problems you have with equipment or supplies. If you have a transplant, talk with your transplant coordinator if your medicines cause digestion problems or other side effects. You are responsible for taking your medicines and keeping your appointments. Taking charge of your own medical care will help you feel more in control of your life.



You can improve the quality of your health care by letting your health care team know how you want to be treated.

Does kidney failure run in families?

Yes, kidney failure runs in families, so your blood relatives are at risk. You can help prevent relatives from having kidney failure by talking with them about their risk. Members of your family may already have **chronic** kidney disease (CKD), which means their kidneys are damaged and do not work as well as they should. CKD tends to get worse over time. CKD often, though not always, leads to kidney failure. CKD most often has no symptoms, so the only way for your family members to know whether they have CKD is to get tested. Simple urine and blood tests can show if they have CKD. The earlier CKD is found, the sooner your family members can take steps to keep their kidneys healthy longer, including taking medicines that help control blood pressure and prevent further kidney damage. Exercising and eating a better diet can also keep CKD from getting worse.

Eating, Diet, and Nutrition

Eating the right foods can help you feel better when you are on dialysis or have a kidney transplant.

Staying healthy with kidney failure requires watching how much of these elements are included in your diet:

- **Protein** is in many foods you eat. Protein is in foods from animals and plants. Most diets include both types of protein. Protein provides the building blocks that maintain and repair muscles, organs, and other parts of the body. Too much protein can cause waste to build up in your blood, making your kidneys work harder. However, if you are on hemodialysis or peritoneal dialysis, you need lots of protein to replace the protein that dialysis removes.
- **Phosphorus** is a mineral that keeps your bones healthy. Phosphorus also keeps blood vessels and muscles working. This mineral is found naturally in foods rich in protein, such as meat, poultry, fish, nuts, beans, and dairy products. Phosphorus is also added to many processed foods. You need phosphorus to turn food into energy; however, too much can cause your bones to weaken.

- **Water** is in drinks and in foods such as fruits, vegetables, ice cream, gelatin, soup, and popsicles. Your body needs water; however, too much can cause fluid to build up in your body and make your heart work harder.
- **Sodium** is a part of salt. You can find sodium in many canned, packaged, and fast foods and in seasonings and meats. You need sodium to help control the amount of fluid in your body; however, too much can cause high blood pressure.
- **Potassium** is a mineral that helps your nerves and muscles work the right way. Potassium is found in fruits and vegetables such as oranges, bananas, tomatoes, and potatoes. You need potassium for healthy nerves and brain cells; however, too much can make your heartbeat irregular.
- **Calories** are found in all foods and are especially high in oils and sugary foods. You need calories for energy; however, too many can cause weight gain and high blood sugar.

Talk with your clinic's renal dietitian to find a meal plan that works for you. Each treatment requires a different diet. If you are on hemodialysis, you have to stay away from foods such as potatoes and oranges because they have lots of potassium. If you are on peritoneal dialysis, eating potassium is fine. Instead, you may need to watch your calories. Your food needs will also depend on your weight and activity level.

Changing your diet may be hard at first. Eating the right foods will help you feel better. You will have more strength and energy. Having more energy will help you live a fuller, healthier life. Read more in *Eat Right to Feel Right on Hemodialysis* at www.kidney.niddk.nih.gov.

Points to Remember

- Kidney failure means your kidneys no longer work well enough to do their job.
- Learning about treatments for kidney failure will help you choose the one that best fits your lifestyle.
- Many people with kidney failure continue to work.
- Physical activity is an important part of staying healthy when you have kidney failure.
- You can help prevent relatives from having kidney failure by talking with them about their risk.
- Eating the right foods can help you feel better when you are on dialysis or have a kidney transplant.

Hope through Research

In recent years, researchers have learned a great deal about how the kidneys work. The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) sponsors several programs aimed at understanding what happens when the kidneys are damaged. The NIDDK's Division of Kidney, Urologic, and Hematologic Diseases supports basic research into normal kidney function and the diseases that impair normal function at the cellular and molecular levels, including diabetes, high blood pressure, glomerulonephritis, and cystic kidney diseases.

Clinical trials are research studies involving people. Clinical trials look at safe and effective new ways to prevent, detect, or treat disease. Researchers also use clinical trials to look at other aspects of care, such as improving the quality of life for people with chronic illnesses. To learn more about clinical trials, why they matter, and how to participate, visit the NIH Clinical Research Trials and You website at www.nih.gov/health/clinicaltrials. For information about current studies, visit www.ClinicalTrials.gov.

Pronunciation Guide

catheter (KATH-uh-tur)

chronic (KRON-ik)

dialyzer (DY-uh-ly-zuhr)

dietitians (DY-eh-TISH-uhnz)

hemodialysis (HEE-moh-dy-AL-ih-siss)

immunosuppressants (ih-MYOON-oh-suh-
PRESS-untss)

peritoneal dialysis (PAIR-ih-toh-NEE-uhl)
(dy-AL-ih-siss)

psychiatrist (sy-KY-uh-trist)

renal (REE-nuhl)

For More Information

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American Kidney Fund

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Life Options

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www.kidneyschool.org

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The National Kidney Disease Education Program (NKDEP) is an initiative of the National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, U.S. Department of Health and Human Services. The NKDEP aims to raise awareness of the seriousness of kidney disease, the importance of testing those at high risk, and the availability of treatment to prevent or slow kidney disease.

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This publication may contain information about medications and, when taken as prescribed, the conditions they treat. When prepared, this publication included the most current information available. For updates or for questions about any medications, contact the U.S. Food and Drug Administration toll-free at 1-888-INFO-FDA (1-888-463-6332) or visit www.fda.gov. Consult your health care provider for more information.

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