



A VIDEO SERIES



living
WELL
with kidney failure

HOW KIDNEY FAILURE AFFECTS YOUR BODY



National **Kidney** Foundation™

Contents

- 2** Introduction
- 3** What will I learn?
- 4** How does kidney failure affect my body?
- 5** How can I protect my heart and blood vessels?
 - 5** Blood pressure
 - 6** Diabetes
 - 6** Anemia
 - 6** Cholesterol problems
 - 7** Mineral and bone problems
- 9** What else can I do to manage my health?
 - 9** Keep track of your lab results
 - 9** Take your medicines
 - 9** Eat healthy meals
 - 9** Get regular physical activity
 - 10** Manage your stress
 - 10** Stay close to others
 - 11** Get help with sadness or depression if you need it
- 13** Review
- 14** True or False
- 15** Words to Know
- 21** The People on My Healthcare Team
- 22** Questions for My Healthcare Team
- 24** About the National Kidney Foundation

Introduction

“Living Well with Kidney Failure” is a video series created by the National Kidney Foundation to help you understand kidney failure and its treatments. There are six videos. Each video has a companion booklet to provide more information and to help you review what you’ve learned. The six videos and booklets are:



This booklet will introduce you to other health problems that can happen as a result of having kidney failure, and what you can do about them. It assumes you already know something about kidney failure, treatments for kidney failure, and who is on your healthcare team. If you need to learn more about these, watch the videos on those subjects and read the companion booklets.

What will I learn?

You’ll learn what kidney failure is, and what happens when your kidneys don’t work. This is also discussed in the video and booklet called “What is Kidney Failure?”

You’ll learn about the two basic treatments available—kidney transplant and dialysis. There are two kinds of dialysis—peritoneal dialysis and hemodialysis. Each treatment is discussed in the videos and booklets called “Kidney Transplant,” “Peritoneal Dialysis,” and “Hemodialysis.”

You’ll also learn about some lifestyle changes you can expect, and how you and your loved ones can learn to cope with them. These are discussed in the video and booklet called “Living Well.” And in this booklet, you’ll learn about other health problems that can happen as a result of having kidney failure, and what you can do about them.

Finally, you will be introduced to some medical terms and other important words that may be new to you. To help you get to know them, there’s a list of “Words to Know” at the end of each booklet.

How does kidney failure affect my body?

Regardless of why you got kidney failure, you need to take care of your physical health. It's important to understand that a loss of kidney function can cause other problems throughout your body, including:

- Heart and blood vessel problems
- High blood pressure
- Cholesterol problems
- Anemia (a low red-blood cell count)
- Mineral and bone problems
- Poor nutrition
- Depression

You may not be able to prevent them all, but they can be treated to help keep them from getting worse. Keep in mind that kidney failure does not happen overnight, and some of these problems may have started long before your kidneys failed.

Your healthcare team will work closely with you to create a plan of care that may include taking several different medicines, eating healthy meals, and getting physical activity.

Not everyone will have the same plan of care. Yours will depend on the type of treatment you choose—hemodialysis, peritoneal dialysis, or transplant. And it will also depend on your lifestyle, personal goals, and other medical conditions you may have. But there are a few things everyone can do. These are discussed in the remainder of this booklet, and also in the companion video.



How can I protect my heart and blood vessels?

Most people with kidney failure also get heart disease. This happens because most people with kidney failure have other health problems, including high blood pressure, diabetes, anemia, cholesterol problems, and mineral and bone problems. These conditions force your heart to work harder. When your heart is forced to work harder, it begins to thicken and enlarge. Over time, heart problems can develop, including heart attack, heart rhythm problems, heart failure, stroke, or early death.

You can help lessen your risk for heart and blood vessel problems—or keep them from getting worse—by controlling your blood pressure, diabetes, anemia, cholesterol, and mineral and bone problems.

Blood pressure

High blood pressure makes your arteries become thicker and narrower. This makes it easy to form clots, which can lead to a heart attack or stroke. It also causes your heart to become thicker and larger. To help control blood pressure, limit your fluid and salt intake, eat right, and get regular physical activity. If your blood pressure is not on target, you may also need to take special pills to help control blood pressure.

Diabetes

Diabetes happens when your body does not make enough insulin or cannot use insulin properly. Insulin is a hormone. It controls how much sugar is in your blood. A high level of blood sugar can cause problems in many parts of your body, especially your heart and blood vessels. Keep your blood sugar under control, and check it as often as your healthcare team tells you. Be sure to follow your diabetes treatment plan.

Anemia

Most people with kidney failure will get anemia. Anemia happens when you do not have enough red blood cells. Red blood cells carry oxygen from your lungs to all parts of your body. Without enough red blood cells, your heart must work harder to get the oxygen through your body. As a result, the heart gets thicker and larger. This can lead to heart failure and death. If you have anemia, you may need to take special drugs to help your body make red blood cells.

Cholesterol problems

When you have high levels of fats (also known as lipids) like cholesterol in your blood, your chance of getting heart and blood vessel problems goes up. Your healthcare team will give you regular blood tests to check for total cholesterol and other fats in your blood. If your levels are too high, you may need to follow a low-fat diet and do more exercise. Some people may also need to take medication to help lower cholesterol.

Mineral and bone problems

When you have kidney failure, important minerals in your body like calcium and phosphorus can get out of balance. As a result, bones may lose calcium and become weak over time. Some calcium and phosphorus may end up in parts of your body where they do not belong, like your heart and blood vessels. This makes your blood vessels get stiff and narrow. When this happens, your chances of having a heart attack or stroke go up. There are medicines to treat the mineral and bone disorders that happen with kidney failure. Ask your healthcare team which ones are right for you. You may also need to be on a special diet. If so, ask for a referral to a dietitian.

“Not everyone will have the same plan of care.”

What else can I do to manage my health?

Keep track of your lab results.

It's helpful to keep a record of your lab results and, after each healthcare visit, record your numbers. Your goals for blood pressure, diabetes, anemia, cholesterol, and bone and mineral problems are very important. If you do not know what your goals are, ask your healthcare team.

Take your medicines.

It's important to take all of your medicines every day and exactly as instructed. If you have problems taking your medicines, or if you experience side effects, tell your healthcare team. They may be able to help.

Eat healthy meals.

Every person has different needs, but most people with kidney failure must control their intake of foods containing high amounts of

certain nutrients, like potassium, sodium, and phosphorus. You'll also need to watch the amount of fluid you drink each day, the number of calories you're getting from what you eat and drink, and whether you're getting all the vitamins and other nutrients you need.

If you have a successful kidney transplant, there will be fewer restrictions on what you can eat and drink.

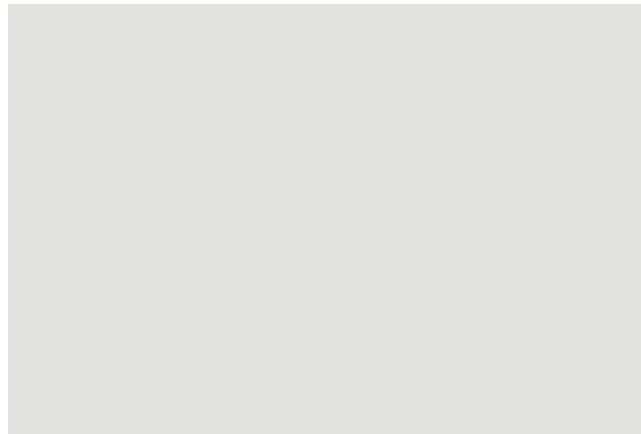
A dietitian with special training in kidney failure can help you plan meals so that you get the right foods in the right amounts. Ask your healthcare team about Medical Nutrition Therapy (MNT), an educational benefit provided through Medicare.

Get regular physical activity.

Physical activity helps control blood pressure, reduce cholesterol, and keep your heart working at its best, with less strain. Being active will give you energy, reduce stress, and help you stay more

independent. It has also been shown to improve depression and overall mood.

Don't confuse physical activity with heavy exercise. Any form of body movement helps—walking, gardening, dancing, babysitting, even grocery shopping. The key is finding something you enjoy. Your energy will increase with activity, and, in time, you'll be able to do more. Always check with your healthcare team before you begin any new physical activity.



Manage your stress.

Stress is a normal part of life, especially if you have a chronic illness. The goal with stress isn't to get rid of it, but to manage it. Managing stress will help improve your physical and emotional health.

There are many things you can do to help manage stress. Taking the time to do things you enjoy is one. Other things include: physical activity, relaxation exercises, breathing, meditation, prayer, music, and so much more. Some people find that keeping a positive attitude or a sense of humor helps.

Talk to your social worker if stress is a problem for you. Your social worker can help you find ways to manage or reduce your stress.

Stay close to others.

It's important to stay close to others and to be involved in the world around you. Social support is something we all need, but it's especially important for someone with a chronic illness.

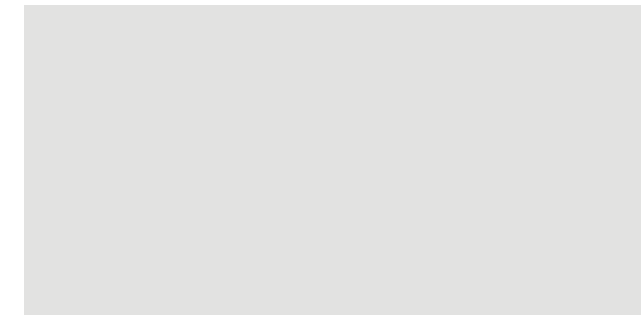
If you are feeling isolated or alone, talk to your social worker. There are support groups, patient mentors, and outreach services designed for people like you! (See www.nkfcares.org)

Try doing things you enjoy that also provide social support, like walking clubs, volunteer work, babysitting, or even taking classes. Your social worker can help you find groups and activities to join.

Don't forget that you are also a valuable friend and partner to others. Remember that your loved ones may need your support as well. On days that you feel well, ask what you can do for them.

Get help with sadness or depression if you need it.

Studies show that 20 to 40 percent of people with kidney failure may have depression. Depression can make it harder for you to concentrate, remember instructions, follow your doctor's advice, or take medications on time. If you are



feeling overly sad, irritable, unable to face each day, crying more than usual, feeling like a burden to others, losing interest in things you used to enjoy, or feeling like you want to give up, talk to your social worker. You may be experiencing depression.

It's important to know that depression is a medical condition, and it can be treated with medication, therapy, or a combination of both. There's no need for you to suffer from it. Your social worker can help you figure out if what you're feeling is caused by depression, and will help you get treatment for it.

*“the most
important member
of your healthcare
team is you.”*

Review

Loss of kidney function can increase your risk of getting other health problems, especially heart disease. But there are things you can do to help lessen your risk or keep these problems from getting worse.

You should:

- Work closely with your healthcare team to develop a plan of care that suits your lifestyle.
- Control blood pressure, diabetes, cholesterol, anemia, and mineral and bone problems.
- Keep track of your lab results.
- Take all your medications every day, exactly as instructed.
- Eat healthy meals.
- Get regular physical activity.
- Manage stress.
- Stay close to others and be involved in the world around you.
- Watch out for—and seek help with—stress and depression.
- Remember that the most important member of your healthcare team is you. Taking an active role in your treatment plan will help you live longer, and have a better quality of life.

True or false

1. Most people with kidney failure also get heart disease. **T F**
2. Anemia means your red blood cell count is too high. **T F**
3. Getting regular physical activity can help control blood pressure. **T F**
4. It is okay to stop taking your medicine if you start feeling better. **T F**
5. There are things you can do to help keep heart disease from getting worse. **T F**
6. It is helpful to keep a record of your lab results and, after each healthcare visit, record your numbers. **T F**
7. There is little or no health benefit from physical activity, unless it's heavy exercise that makes you sweat. **T F**
8. Stress is a normal part of having kidney failure, and there is nothing you can do to help reduce it. **T F**
9. Depression cannot be treated. **T F**
10. A dietitian can help you plan healthy meals with the right amount of nutrients. **T F**

1. True 2. False 3. True 4. False 5. True 6. True 7. True 8. False 9. False 10. True

Words to Know

advanced practitioners

Members of your healthcare team who work closely with your nephrologist to give you regular checkups, medicines, and other medical care. Advanced practitioners include nurse practitioners, physician assistants and clinical nurse specialists.

anemia

A decrease in the number of your red blood cells, which can make you feel very tired and have other bad effects.

blood pressure

The force of blood pushing against the inner walls of the blood vessels.

calories

The amount of energy a food or drink contains.

cholesterol

A fat-like substance found in the blood. Too much cholesterol in the blood is a risk for heart and blood disease.

depression

A medical condition that can be treated. Symptoms include: sadness, withdrawal, inability to sleep, difficulty concentrating, irritability, gloominess, crying, feeling like a burden to others, wanting to give up, or losing interest in things you used to enjoy.

diabetes

A condition that happens when your body cannot make enough insulin or cannot use insulin properly. Insulin is a hormone that controls how much sugar is in your blood. There are two main types of diabetes: Type 1 (when your body does not make enough insulin and you need “shots” or injections), and Type 2 (when your body makes insulin but cannot use it properly).

dialysis A process that filters waste products and extra fluid from your blood when your kidneys are no longer doing their job.

dialysis center A place in the hospital or community where dialysis treatments are given to kidney patients.

dialysis machine A special machine that uses an artificial kidney to filter waste products and extra fluid from your blood.

dialysis technician The member of your healthcare team who is specially trained to take care of the dialysis machine and other equipment at the dialysis center.

diet plan The plan that you and your dietitian will create to make sure you are eating and drinking the right things in the right amounts.

dietitian The member of your healthcare team who will help you plan what to eat and drink to help you feel your best, and to get the most from your treatment.

heart attack Damage to part of the heart muscle. A heart attack can happen if oxygen is blocked from reaching a part of the heart muscle. Symptoms include: severe chest pain, sweating, nausea, and shortness of breath.

heart disease A disorder that affects the heart and the blood vessels that supply the heart muscle. This includes: heart defects, damage to the heart muscle due to restricted blood supply, abnormal heart rhythms, blockage due to a buildup of fatty deposits, and other problems.

heart failure Heart failure does not mean your heart has stopped pumping. It means your heart cannot pump well enough to move blood and fluids through your body.

healthcare team All of the people responsible for planning your care and helping you cope with kidney failure. Your healthcare team may include your nephrologist, advanced practitioner, nurse, dialysis technician, dietitian, social worker, transplant coordinator, and transplant surgeon. You, too, are an important member of your healthcare team.

hemodialysis A form of dialysis treatment. In hemodialysis, your blood is cleaned of waste products and extra fluid through a dialysis machine.

high blood pressure High pressure of blood against the inner walls of the blood vessels as blood is pumped through the body.

hormones Chemicals produced by different glands and organs—including the kidneys—to trigger certain responses in your body.

insulin A hormone that controls how much sugar is in your blood.

kidney disease The loss of some or all of your kidney function. Kidney disease can result from conditions such as high blood pressure, diabetes, heredity, or injury to the kidneys.

kidney failure The stage of kidney disease at which treatment with either dialysis or a kidney transplant is needed to stay alive.

kidney transplant One of the basic treatments for kidney failure. In transplantation, a kidney from a living donor or from someone who has recently died is surgically placed into a patient's body to do the work that diseased kidneys can no longer do.

lipids Fatty substances that are found in the bloodstream. There are different types of lipids, some good and some bad, with two major types of lipids being cholesterol and triglycerides.

medical nutrition therapy This benefit allows qualified persons on Medicare to get reimbursed for one-on-one nutrition counseling with a qualified dietitian. Ask your healthcare professional if you qualify.

mineral and bone disorder Kidney failure can cause important minerals in your bloodstream, such as calcium and phosphorus, to get out of balance. As a result, bones may lose calcium and become weak over time. Some calcium and phosphorus may end up in parts of your body where they do not belong, like your heart and blood vessels. When this happens, you are at increased risk for a heart attack or stroke.

nephrologist The member of your healthcare team who is a doctor specially trained in treating kidney disease and kidney failure.

nurse The member of your healthcare team who is a licensed RN or LPN, and is specially trained to care for kidney patients. Nurses coordinate care between other team members.

nurse practitioner A member of your healthcare team who works closely with your doctor to give you regular checkups, medicines, and other medical care.

nutrients Chemicals that you get from food that are necessary to live and grow. They are used to build and repair tissues, regulate body processes, and for energy.

peritoneal dialysis A form of dialysis treatment. In peritoneal dialysis, a cleansing solution flows through a catheter into your abdominal cavity, where it removes waste products and extra fluids from your body, and then is drained out. You do the procedure yourself a number of times a day.

phosphorus A mineral found in milk, cheese, nuts, dried beans, and other foods. Eating too much phosphorus can lead to weak bones in people with kidney failure.

physician assistant A member of your healthcare team who works closely with your doctor to give you to give you regular checkups, medicines, and other medical care.

potassium A mineral found in beans, nuts, bananas, and other foods. Eating too much potassium can cause heart problems in people with kidney failure..

protein An important nutrient that helps build muscle, repair tissue, and fight infection.

red blood cells Cells in your blood that carry oxygen to all parts of your body. A loss of red blood cells can cause anemia.

sodium A mineral that is found in table salt and many foods. Too much sodium can make you thirsty and cause you to drink too much fluid.

- social worker** The member of your healthcare team who is specially trained to help you cope with the non-medical problems you may have, such as the stress of a serious illness.
- stroke** Brain damage caused by a blocked blood vessel or bleeding in the brain. The signs of a stroke may include weakness, numbness, blurred vision, confusion, and slurred speech.
- transplant center** A hospital where patients who are interested in getting a kidney transplant go for an evaluation or surgery itself.
- transplant coordinator** The member of your healthcare team who is responsible for arranging many parts of the transplant process. A transplant coordinator is usually a registered nurse.
- transplant physician** The member of your healthcare team who will be responsible for much of your transplant care. He or she may also be a nephrologist.
- transplant surgeon** The member of your healthcare team who will perform the transplant operation should you choose transplantation as your treatment option.
- vitamins** Important nutrients that are found in different amounts in different foods. They help your body do its work. They are needed for a healthy diet.

The National Kidney Foundation is grateful to the patients, clinicians, dialysis units, and transplant centers that helped make this program possible.

The People on My Healthcare Team

Nephrologist _____

Advanced practitioner _____

Nurse _____

Dialysis technician _____

Dietitian _____

Social worker _____

Transplant coordinator _____

Transplant surgeon _____

Transplant physician _____

Important telephone numbers _____

About The National Kidney Foundation



The National Kidney Foundation (NKF) is a team member working behind the scenes. The NKF offers programs like “Living Well with Kidney Failure” so that you and your family can learn about kidney disease and kidney failure.

The NKF also supports patient and community services, research, professional education, organ donation and public information programs.

Please feel free to review the “Living Well with Kidney Failure” program as often as you like. There are five other videos and booklets in this program. If you have any questions at all, ask any member of your healthcare team, or you can call the National Kidney Foundation at any time.

The toll-free number is **1.855.NKF.CARES (1.855.653.2273)**
www.kidney.org



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National Kidney Foundation™

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