

## Kidney Disease: Signs and Treatment

### WHAT ARE THE EARLY SIGNS OF KIDNEY DISEASE?

Your doctor will test for protein in your urine if you have diabetes. If your test shows protein in the urine, your doctor will repeat the test to confirm the results. Additional blood tests and urine tests may be helpful, such as comparing the amount of protein with the amount of another compound, creatinine, in your urine. (Creatinine is a waste product from protein and muscles in the body.)

Protein in the urine also can be an early warning sign of cardiovascular (heart and blood vessel) disease or of diabetic retinopathy (eye disease) so your doctor may check your heart and your eyes as well.

### WHAT ARE THE OTHER SIGNS OF KIDNEY DAMAGE?

As kidney disease progresses, waste products remain in the blood, so you may experience fluid retention, fatigue, nausea, and vomiting. You also may have anemia, which means you have too few red blood cells.

Your kidneys make a hormone called erythropoietin (eh-RITH-roh-POY-uh-tin) that signals your body to make red blood cells. With kidney disease, you don't make enough erythropoietin, so you may not have enough red blood cells. Without them, your blood won't be able to carry enough oxygen to all parts of your body, leaving you feeling tired and weak. Your health care provider may give you an injection of erythropoietin and have you take iron pills to combat the anemia.

### IF I ALREADY HAVE KIDNEY DAMAGE, HOW CAN I SLOW IT DOWN?

If you already have kidney damage, it's not reversible. But you can slow down the rate of damage and keep it from getting worse. You'll want to keep blood glucose and blood pressure levels on target, lose weight if needed, and continue to take your medications. In addition, these steps can help:

#### **Change the way you eat.**

Many people find that lowering the amount of sodium in their meal plan helps lower blood pressure. If you usually have large servings of protein-rich foods such as meat, chicken, and fish, your health care team may recommend that you eat fewer protein-rich foods to protect your kidneys. A registered dietitian can help you plan how to make these changes.

#### **Watch out for your kidneys when you have certain X-ray tests.**

Some X-ray tests use a liquid dye for better images. However, these dyes can harm the kidneys. The doctor may decide to do a different type of test without dye.

#### **See your doctor right away for bladder or kidney infections.**

If you have pain or burning during urination, a frequent urge to urinate, cloudy or reddish urine, nausea, a fever, or pain in your back or on your side below the ribs, you may have an infection in your bladder or kidneys. Left untreated, infections can damage your kidneys.

## KIDNEY FAILURE

After a number of years, kidney disease can damage kidneys so much that they stop working entirely. This is called kidney failure or end-stage renal disease. People with kidney failure must find another way to clean their blood. One method is dialysis, which involves cleaning the blood with special equipment.

There are several types of dialysis. Some can be done at home, and for some the patient goes to a dialysis center.

Another way to restore kidney function is to have a kidney transplant. In a kidney transplant, a surgeon places a healthy kidney from another person into your body. The new kidney takes over the work your kidneys used to do. After the transplant, you'll need to take medications that keep your body's immune system from rejecting the new kidney.

## WHAT CAN I EXPECT IF I HAVE KIDNEY FAILURE?

Serious kidney problems can bring many changes in your day-to-day life: how you feel, what you do every day, and how you treat your diabetes.

### Your schedule

If you're using a dialysis center, you'll be there three times a week for 3 to 5 hours at a time. While you're attached to the dialysis machine, you can read, sleep, or work. If you've chosen a type of dialysis that's done at home, you'll still be on a schedule but you'll be able to move about and do your usual activities during the dialysis process. Some people do peritoneal dialysis overnight, while they're sleeping.

### Your food and beverages

It's likely that your meal plan will change, depending on what type of dialysis you're using. Because waste products can build up in the blood between dialysis sessions, you'll need a special diet to stay healthy. A dietitian will help you make a meal plan that provides all of the things your body needs without putting extra waste products in your bloodstream. If you're planning to get a transplant, you'll have different dietary needs.

### Your physical activity

You can still benefit from physical activity, even with serious kidney problems. However, you'll want to talk with your health care team about what activities are best for you and when to do them.

### Your diabetes care

Serious kidney disease can lead to changes in how you manage your diabetes. Because of changes in your blood, the results of your A1C may not be reliable.

If you use insulin, you may be at risk for low blood glucose (hypoglycemia). This can happen because part of insulin is broken down by the kidney. If your kidneys aren't working, the way your body processes insulin can become unpredictable. This can also happen with certain diabetes pills. Your health care team can advise you on how to avoid low blood glucose by adjusting your dosage of diabetes medication.