

Chronic Kidney Disease (CKD)

Assessment and Diagnosis FAQs for Patients

The National Kidney Foundation and America's laboratories are working together to help people at risk for CKD better understand and track their health. We are collaborating to address frequently asked questions regarding kidney disease.

What do the kidneys do?

The kidneys filter your blood to remove wastes and excess fluid to make urine. They also help control blood pressure and make hormones that your body needs to stay healthy.

How do I keep my kidneys healthy?

There are a number of lifestyle choices you can make to protect your kidney health. Maintain a normal weight. Obesity increases the chance of diabetes and high blood pressure, the two most common causes of kidney disease. Make sure to eat a balanced diet that includes fruits, vegetables, whole grains, fresh meats and low-fat dairy products. Try to limit or avoid processed foods such as fast food and high calorie drinks. Getting enough physical activity is important and will help your body stay strong inside and out. Smoking slows the blood flow to important organs like the kidneys and can make kidney disease worse, so quit smoking.

Why do I need kidney tests?

CKD has a silent onset, which means there are often no symptoms until the kidneys are badly damaged. Kidney tests will tell you how your kidneys are working. You should find out as early as possible if you have kidney disease to avoid problems and slow the loss of kidney function.

How often do I need kidney tests?

If you have diabetes, high blood pressure, heart disease or a family history of kidney disease, you should have kidney tests done at least once each year. Ask your health care practitioner how often you should be tested.

What tests do I need to see how my kidneys are working?

Blood and urine tests show how well the kidneys are doing their job. Both blood and urine tests can show the functional level of your kidneys. Urine tests can show how well the kidneys remove body wastes and whether they are leaking too much protein.

Blood Tests:

Serum Creatinine

Creatinine (kree-AT-uh-nin) is a waste product that comes from the normal wear and tear on muscles of the body. A creatinine level around 1 is normal in most people, but can differ based on age, race, and body size. The level of creatinine in the blood goes up if kidney disease gets worse. Estimated glomerular filtration rate (eGFR) is the more accurate test of kidney function.

Estimated Glomerular Filtration Rate (eGFR)

This test is the best measure of how well the kidneys are removing wastes and excess fluid from the blood. Your healthcare practitioner can estimate GFR (eGFR) from the blood creatinine level using your age, weight, gender, and body size. Normal eGFR can vary according to age (as you get older it goes down). An eGFR below 60 is a sign that the kidneys are not working properly. An eGFR below 15 may mean that the person will need treatment for kidney failure, such as dialysis or a kidney transplant. You can think of eGFR as a percent of kidney function with less than 60% being lower than normal. The eGFR goes down if kidney disease gets worse.

Urine Test:

Albumin-Creatinine Ratio (ACR)

The albumin-creatinine ratio (ACR) is a test which can find a protein called albumin in the urine. Albumin is present in high amounts in the blood, but almost no albumin is present in the urine when the kidneys work properly. However, albumin may be present in the urine even in the early stages of kidney disease (and before a reduction in eGFR).

Protein-Creatinine Ratio (PCR)

The protein-creatinine ratio is another test for kidney damage.

What is chronic kidney disease (CKD)?

When the kidneys are damaged, wastes and fluid can build up in the body. Kidney disease, also called chronic kidney disease (CKD), is when kidneys can no longer remove enough wastes and extra fluid from the blood, or do other jobs as they should. When kidney failure happens, dialysis treatments or a kidney transplant are needed to stay alive. Kidney disease is present when either the eGFR is less than 60 or the ACR is greater than 30 on 2 tests, for 3 or more months.

NORMAL

eGFR above 60

MODERATE

eGFR 30-60

SEVERE

eGFR less than 30

What are the stages of kidney disease?

There are five (5) stages of kidney disease (shown below). The stage of kidney disease will help decide what type of medical therapy a person will need.

Stages of Chronic Kidney Disease

Stage 1	eGFR 90 or greater	Normal or high eGFR AND elevated ACR*
Stage 2	eGFR = 60-89	Mildly decreased eGFR AND elevated ACR*
Stage 3 a	eGFR = 45-59	Mild to moderately decreased eGFR
Stage 3 b	eGFR = 30-44	Moderately to severely decreased eGFR
Stage 4	eGFR = 15-29	Severely decreased
Stage 5	eGFR 15 or less	Kidney failure

**When the eGFR is above 60, you don't have CKD unless the albumin-creatinine ratio (ACR) is more than 30 mg/g*

What questions should I ask my healthcare practitioner?

Here are some questions to ask your healthcare practitioner to find out about your kidney health:

- What is my eGFR?
- What is my urine albumin or ACR?
- What is my blood sugar? (for people with diabetes)
- What is my blood pressure?
- What are my chances of having kidney disease?
- Do I have kidney disease?
- If I have kidney disease, what stage?
- What should I do to keep my kidneys healthy?