



NATIONAL KIDNEY
FOUNDATION®



Chronic Kidney Disease and **CKD Testing**



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Role of the Kidneys







Your kidneys do many important jobs. Some of the ways they keep your whole body in balance include:

- Removing natural waste products and extra water from your body
- Helping makes red blood cells
- Balancing important minerals in your body
- Helping maintains your blood pressure
- Keeping your bones healthy

About CKD

Chronic kidney disease (CKD) is when the kidneys have become damaged over time (for at least 3 months) and have a hard time doing all their important jobs. CKD also increases the risk of other health problems like heart disease and stroke. Developing CKD is usually a very slow process with very few symptoms at first.

Stages of CKD

STAGE	DESCRIPTION	ESTIMATED GLOMERULAR FILTRATION RATE (eGFR)	KIDNEY FUNCTION
1	Kidney damage (e.g., protein in the urine) with normal kidney function	90 or above	
2	Kidney damage with mild loss of kidney function	60 to 89	
3a	Mild to moderate loss of kidney function	45 to 59	
3b	Moderate to severe loss of kidney function	30 to 44	
4	Severe loss of kidney function	15 to 29	
5	Kidney failure	Less than 15	

Usually, developing CKD is not due to any single reason, but because of a combination of physical, environmental, and social factors. Early detection is important—CKD often begins without causing any obvious symptoms. If found and treated early, you can help slow or even stop CKD from getting worse.



Learn more at [about the stages of CKD](#).

Are You at Risk for Chronic Kidney Disease?

Anyone can develop chronic kidney disease (CKD)—at any age. However, some people are more likely than others to develop CKD. The most common CKD risk factors are:

- Diabetes
- High blood pressure ([hypertension](#))
- Heart disease and/or heart failure
- Obesity (having a body mass index or BMI of 30 or more)
- Over the age of 60
- Family history of CKD or kidney failure
- Personal history of acute kidney injury (AKI)
- Smoking and/or use of tobacco products



PDF: Are you at increased risk for CKD?

Know Your Kidney Numbers: Two Simple Tests.



eGFR

Estimated Glomerular Filtration Rate

Blood Test

Show how well your kidneys filter (clean) your blood.



uACR

Urine Albumin to Creatinine Ratio

Urine Test

Shows if your kidneys are leaking protein (albumin) into your urine, which may mean kidney damage.

CKD is evaluated using two simple tests—a **blood test** (known as the estimated glomerular filtration rate [eGFR]) and a **urine test** (known as the urine albumin-creatinine ratio [uACR]). **Both tests are needed to have a clear picture of your kidney health.**

Urine albumin-creatinine ratio (uACR)

Having albumin in your urine (also known as albuminuria or proteinuria) can be a sign of kidney disease, even if your estimated glomerular filtration rate (eGFR) is above 60 or “normal”. A **lower** number is better for the uACR, ideally lower than 30.

This test often needs to be repeated to confirm the results. Decisions are rarely made based on the results from one sample.

Estimated glomerular filtration rate (eGFR)

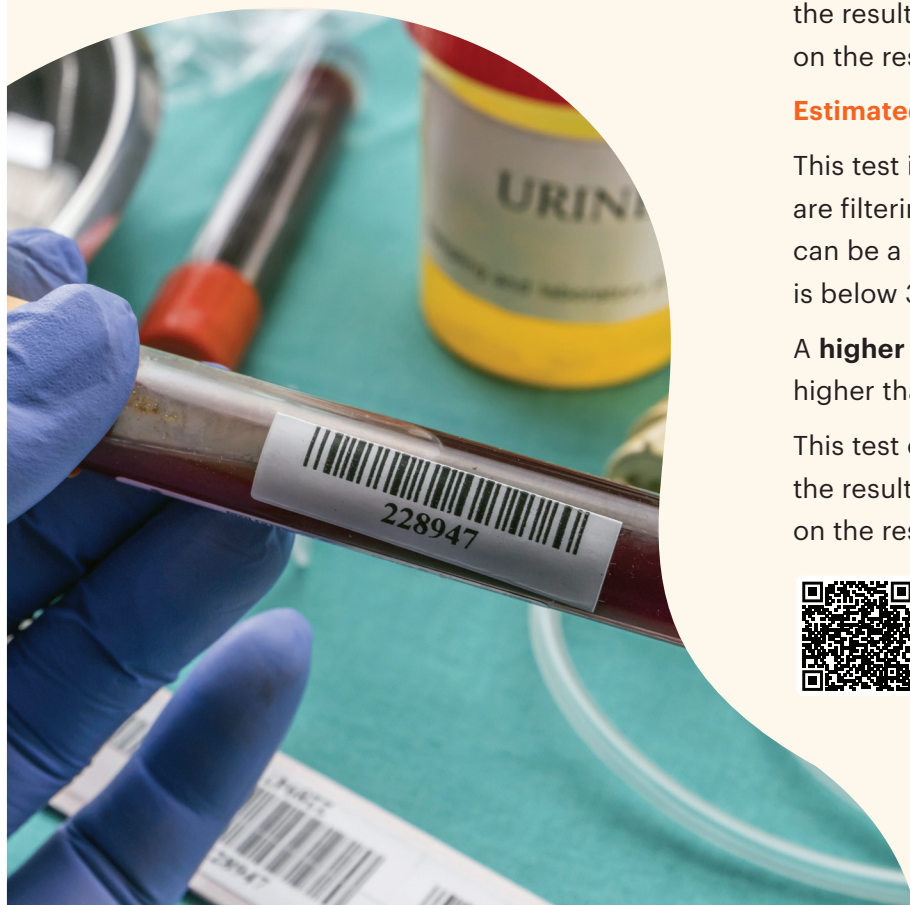
This test is a measure of how well your kidneys are filtering the blood. An eGFR value below 60 can be a sign of kidney disease, even if your uACR is below 30 or “normal”.

A **higher** number is better for this test, ideally higher than 60.

This test often needs to be repeated to confirm the results. Decisions are rarely made based on the results from one sample.



**Know Your Kidney Numbers:
Two Simple Tests**



CKD Heat Map: Know Your Kidney Numbers

The CKD Heat Map shows your risk level for kidney disease progression based on your eGFR and uACR numbers, using easy-to-understand color zones.

		uACR NUMBER		
eGFR	CKD STAGE	Lower than 30 A1	30-300 A2	Higher than 300 A3
90 or higher	G1	Green	Yellow	Orange
60-89	G2	Green	Yellow	Orange
45-59	G3a	Yellow	Orange	Red
30-44	G3b	Orange	Orange	Red
15-29	G4	Red	Red	Red
15 or lower	G5	Red	Red	Red

On the left side of the map, your eGFR number matches up with a CKD stage.

A higher eGFR number is better because it means you have a lower CKD stage.

On the top of the map, your uACR number matches up with a uACR level.

A lower uACR is better because that means less albumin in the urine.

Green	Yellow	Orange	Red
You do not have CKD or you are at the lowest risk for CKD getting worse.	You are at increased risk for CKD getting worse and are at risk for heart disease.	You are at high risk for CKD getting worse and at greater risk for heart disease.	You are at the highest risk for CKD getting worse or your kidneys to fail, and you are at a greater risk for heart disease.

Questions to Ask Your Health Care Professional

- What do my eGFR and uACR numbers mean for my kidney health?
- How often should I have these kidney tests repeated?
- Am I at risk for chronic kidney disease based on my health history?
- If I have early signs of kidney damage, what are the next steps I should take?

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