

EXPLAINING CKD AND YOUR KIDNEY TEST RESULTS

Adapted from the National Institute of Diabetes and Digestive and Kidney Diseases "Explaining your kidney test results: A tear-off pad for clinical use"



What do my kidneys do?

Your kidneys filter waste and extra water out of your blood in the form of urine, help make red blood cells, and keep your bones strong.

What is CKD?

CKD (chronic kidney disease) means the kidneys are damaged and may no longer filter blood well. This damage happens over many years. As more damage occurs, the kidneys are unable to keep the body healthy - then dialysis or a kidney transplant may be needed to maintain health.

What are the symptoms of CKD?

Most people with CKD have no symptoms until their kidneys are about to fail. The only way to know if you have kidney disease is to get tested. The sooner kidney disease is found, the sooner you can take steps to begin treatment and keep your kidneys healthier longer.



What can I do to lower my risk for CKD?

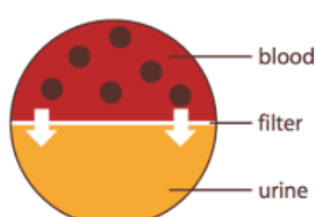
Managing conditions such as diabetes and high blood pressure are important for ensuring kidney health. Choosing healthy foods, quitting smoking, and being more physically active are also important steps.

How do you check for CKD?

A blood test and a urine test is used to find kidney disease. Because you are at risk, you should get these tests regularly:

- GFR - a blood test measures how much blood your kidneys filter each minute, which is known as your glomerular filtration rate (GFR). Cystatin C is a small molecule that is normally filtered by your kidneys to keep the levels just right. If GFR is low, your kidneys may not be working as well as they should and Cystatin C levels will be higher.
- Urine Albumin - a urine test checks for albumin in your urine. Albumin is a protein that can pass into urine when the filters in the kidneys are damaged.

Inside a **healthy** kidney



Inside a **damaged** kidney



CHANGING HOW WE MEASURE KIDNEY DISEASE

What You Need to Know

How do I measure the severity of CKD?

When kidneys are damaged and no longer filter blood as well, this is known as CKD (chronic kidney disease). Its severity is measured by estimating one's GFR, which can indicate how well the kidney is filtering blood.

Traditional Method to Measure GFR

Traditionally, GFR has been estimated by measuring the amount of creatinine in one's blood, which would increase if the kidneys are not working well. This value is plugged into an equation that include people's:

- creatinine amount in blood
- sex
- age
- **whether a patient is Black or non-Black**

Why is Race included?

In a study done in 1999, it was seen that, on average, Black patients had higher GFRs than White patients. The researchers assumed that this was because Black patients had more muscle mass, leading to higher levels of creatinine than White patients. They then decided to use race in the equation to indicate higher muscle mass if a patient was Black. This causes Black patients to have a higher estimated GFR than White patients with all of the same measurements -- indicating that the Black patient would have better kidney function.

Why is this harmful?

Estimating a higher GFR in Black patients simply because of their race can lead to physicians assuming that a Black patient's kidneys are working better than they actually are. This can lead to:

- a later diagnosis of kidney failure
- delayed referral and treatment
- a longer time before being evaluated for transplantation that could save patients' lives

Ultimately, because Black patients need higher blood creatinine to be diagnosed with higher levels of kidney disease, this limits their access to equal care.

What Can We Do?

In order to fight for equal care for our patients, we are moving towards using equations that **do not include race**. Additionally, the use of a newer blood test known as cystatin C instead of creatinine, will help estimate kidney function more precisely in all patients using **an equation that treats patients of all races equally**.



What Can You Expect?



This new equation can change a number of things, but we believe that all of these changes will lead to better care for our patients.

- **Your estimated GFR (eGFR) might decrease**
This can lead to a diagnosis of a more severe stage of kidney disease. If this is the case, then your provider will work with you to re-evaluate the management of your condition. Regardless, this more accurate measurement will lead to you getting the care that you need.

Your Health Providers are Here to Help

The National Kidney Foundation and American Society of Nephrology have stated that race should not be included when estimating kidney function and that the current equations should be replaced with one that is accurate while also being unbiased. ***Your healthcare providers are working to make this change to fight for equal access to care for all patients, to stay up-to-date with innovations in medicine, and to try to be the best providers we can be for you.*** We also recognize that the ongoing change in equation and lab tests has been big for physicians, so we know that this can have a big impact on you as well. Please talk to your provider if you have any concerns or questions regarding the management of your care.