

eGFR Calculation Change

On February 28, 2022, Labcorp is changing the calculation of the estimated glomerular filtration rate (eGFR) to an equation that does not include race. The following frequently asked questions will help you better understand this change.

1. What is the eGFR?

A: Glomerular filtration rate (GFR) is the best way to measure how well your kidneys are working. Laboratories use equations to estimate the glomerular filtration rate instead of measuring it directly because the test is complicated and cannot be easily done in a doctor's office. That is why laboratories report an estimated GFR (eGFR). Original equations used age, sex and race as well as a blood test called creatinine to estimate eGFR.

2. Why did the eGFR calculation change?

A: The National Kidney Foundation and the American Society of Nephrology formed a task force (NKF-ASN Task Force) that looked at the Inclusion of Race in Diagnosing Kidney Disease. The task force recommended that eGFR no longer be calculated using an equation that includes race and be replaced by a new race-free equation known as the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) 2021_{cr} equation.¹

3. Why was race originally included?

A: Using calculations to make accurate estimations is common in the medical field. Race was originally included in eGFR calculations because some studies showed that people who self-identified as African American and/or Black can have, on average, higher levels of creatinine in their blood. It was thought the reason why was due to differences in muscle mass, diet, and the way the kidneys eliminate creatinine.² As a result, race was included in previous eGFR equations for people who identify as African American and/or Black.

The result of adjusting for race is that African American and/or Black people have a higher eGFR reported. This is thought to potentially contribute to health disparities such as delays in referral to a nephrologist or for a kidney transplant.¹

4. As an African American and/or Black person, how will the eGFR test without race be different for me?

A: You will have the same blood test performed as before; however, the calculation used to determine your eGFR result will use a new equation to estimate your eGFR that does not include race because diversity was built into the equation.¹

5. What is the benefit of the race-based calculation going away?

A: The benefit is that the new equation takes into account diversity so as not to have potential consequences that disproportionately affect any one group of individuals.

6. What, if any, is the detriment of the race-based calculation going away?

A: While it is not a detriment, some people may see a change in their eGFR and have concerns. If you have concerns, speak to your healthcare provider. Your provider can recalculate your eGFR to see how this change may affect you.

7. Do I need to get tested again soon (less than a year from my last test) if my previous eGFR was low?

A: You can compare your previous result to the updated equation using this [eGFR calculator](#).³ To use the calculator, you will need the serum creatinine value from your most recent laboratory test. If the eGFR calculator provides you with a number that is different from your latest laboratory tests, we suggest that you contact your healthcare provider to see how this change may impact you.

8. How will my eGFR change due to the new equation?

A: Generally, new eGFR values will be slightly lower in African American and/or Black people and slightly higher in non-African American and/or Black people versus previously reported values.⁴ For most people, the eGFR result will be similar. However, for some, the values may differ by more than 10%, particularly at higher levels of eGFR and for younger adults. Because the eGFR difference will vary by age, sex and your serum creatinine result, it's important that your healthcare provider uses the calculator on the NKF website to calculate the 2021_{cr} eGFR value for an accurate view of the eGFR change.

9. Will there be an increase in the number of African American and/or Black people who become diagnosed with kidney disease or have decreased kidney function due to the removal of race from the equation?

A: The potential impact of the new equation was modeled, and overall, the clinical decisions differed at high versus lower eGFRs. African American and/or Black people with eGFRs ≥ 90 will be affected more for clinical decisions compared to those with eGFR levels less than 20. It was estimated that 640,000 African American and/or Black people would be diagnosed with CKD—an increase of 31%. The number of African American and/or Black people that may require a nephrologist referral was estimated to increase 9% to 40,000 nationally.¹

10. Are there other medical considerations with the change in eGFR that should be considered?

A: eGFR is used for determining eligibility for other procedures (such as imaging procedures) that use contrast agents, safety and dosing for medications such as pain medication and cancer therapies, eligibility for clinical trials and other clinical decisions.

11. Why do African American and or/Black people have a higher prevalence of kidney disease versus other populations?

A: African American and/or Black people are almost four times more likely to have kidney failure compared to White people. One explanation for the high prevalence of kidney disease in this population is due to higher rates of diabetes, hypertension, obesity and heart disease, which can lead to kidney disease. Other factors such as poorer access to insurance and medical care can delay kidney disease diagnosis, resulting in faster progression of the disease.

12. If I have a family member who has been diagnosed with CKD, am I at higher risk for CKD?

A: Kidney disease runs in families, and a person may be more likely to get kidney disease if a close relative has it. This can be due to genetics as well as other social and environmental factors. Because kidney disease often has no symptoms until the kidneys are badly damaged, it's important to get screened annually if CKD runs in your family.

1. Delgado C, Baweja M, Crews DC, et al. A Unifying Approach for GFR Estimation: Recommendations of the NKF-ASN Task Force on Reassessing the Inclusion of Race in Diagnosing Kidney Disease. *Am J Kidney Dis*. 2022 Feb;79(2):268-288.e1. Epub 2021 Sep 23.

2. Hsu J, Johansen KL, Hsu C, Kaysen GA, Chertow GM. Higher Serum Creatinine Concentrations in Black Patients With Chronic Kidney Disease: Beyond Nutritional Status and Body Composition. *Clin J Am Soc Nephrol*. 2008 Jul;3(4):992-997.

3. National Kidney Foundation (NKF). eGFR Calculator. NKF web site: https://www.kidney.org/professionals/kdoqi/gfr_calculator. Accessed January 2022.

4. Miller WG, Kaufman HW, Levey AS, et al. National Kidney Foundation Laboratory Engagement Working Group Recommendations for Implementing the CKD-EPI 2021 Race-Free Equations for Estimated Glomerular Filtration Rate: Practical Guidance for Clinical Laboratories. *Clin Chem*. 2021 Dec 16;hvb278. Online ahead of print.