



GENERAL HEALTH TESTING

Creatinine and eGFR Information Sheet

What is Creatinine?

Creatinine is a waste product from the breakdown of a compound called creatine. Creatinine is usually removed from the body by the kidneys. Measurements of creatinine levels and estimation of glomerular filtration rate (eGFR) in a blood sample are useful for the evaluation of kidney function, diagnosis and monitoring of acute and chronic renal disease, and to assess the status of renal dialysis patients (1).

What are normal creatinine and eGFR values?

Creatinine levels vary depending on age, ethnicity, body size and muscle mass. Normal creatinine ranges are 0.72 – 1.25 mg/dL for adult males and 0.57 – 1.11 mg/dL for adult females (2).

Normal GFR is more than 90 for adults. GFR declines with age, even in the absence of kidney disease. Values between 60 and 89 may indicate kidney disease. Values less than 60 for more than 3 months occur during moderate-to-severe chronic kidney disease (2).

Why should I take a creatinine and eGFR test?

When the kidney is not functioning properly, creatinine can accumulate in the blood. Hence, creatinine testing and estimation of GFR are useful to detect for kidney damage, evaluate kidney function, determine the effectiveness of dialysis, or in combination with other tests to help diagnose various health conditions (3).

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What influences creatinine and eGFR levels?

Kidney damage and reduced kidney function inhibit the removal of creatinine from the blood and result in high creatinine levels and low eGFR levels. Various other factors can also result in elevated blood creatinine, including dehydration, kidney obstruction, increased protein intake, and intense exercise.

Reduced creatinine in the blood can be a sign of a muscle disease (e.g. muscular dystrophy), liver disease, or excess water loss (4). Low creatinine levels can also occur during pregnancy, in individuals who have a low muscle mass, or due to certain medications (5).

What are the signs of kidney damage?

Often there are no obvious symptoms during the early stages of kidney disease. However, early detection of abnormal kidney function is important, because early treatment usually slows disease progression. Some of the initial symptoms of kidney complications include muscle cramps, nausea, lack of appetite, insomnia, and swelling in the feet and ankles (6).

Where can I find more info?

Visit www.genetrackdiagnostics.com for full test information, including specimen collection requirements

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References:

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- (5) Kuhlbauck B, Widholm O. (1966). Plasma Creatinine in Normal Pregnancy. Scand J Clin Lab Invest. 18(6), 654-656.
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NOTE:

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