

What do my lab test results mean?

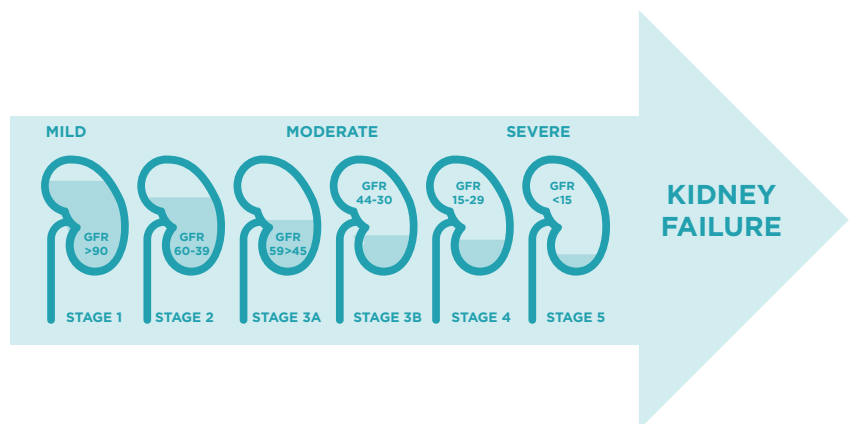
Why do you need to be familiar with your lab values?

Understanding the basics of your lab values is an important step in making informed decisions in your health care.



Glomerular Filtration Rate (eGFR):

Your eGFR tells you how much kidney function you have. The lower your kidney function, the higher the stage. Stages 4 and 5 are considered *End Stage Kidney Disease* (ESKD) and you may begin discussing dialysis and transplant with your doctor.



Urine Protein

Protein in your urine is often a sign of kidney disease. Your kidneys are not supposed to let a lot of protein pass into your urine. If your kidney filters are not working properly, then proteins such as albumin may spill from your blood into your urine. You can test your urine protein at home with dipsticks. It is recommended you test your first urine of the day to get the most accurate reading. Your ultimate goal is to have negative (or trace) urine protein.



Lab Value	Normal Level	Description
Creatinine (Cr)	0.5-1.5 mg/dL	Creatinine is a normal waste product in your body from muscle activity. Creatinine is filtered out of the blood through the kidneys. If your kidneys are not filtering properly, you will have higher levels of creatinine in your blood. This lab value is a reliable predictor of kidney function.
Blood Urea Nitrogen (BUN)	10-30 mg/dL	BUN is a normal waste product from your body's normal metabolism. BUN is filtered through the kidneys, so if your kidneys are not filtering properly, your BUN level will increase.
Albumin (Alb)	3.5-5.0 g/dL	Albumin is a type of protein in your blood. When your kidneys are not functioning properly, the albumin in your blood spills out of the blood into your urine. Decreasing albumin in your blood corresponds with declining kidney function. You may also be more susceptible to infection.
Hemoglobin (Hgb)	Male: 13.2-17.3 g/dL; Female: 11.7-15.5 g/dL	Hemoglobin is the part of your red blood cells that carries oxygen to all parts of your body. When your hemoglobin is low, you may feel tired or have little energy.
Hematocrit (Hct)	Male: 39-50% Female: 35-47%	Hematocrit is a measure of how many red blood cells you have in your body. When your hematocrit is low, you may need treatment for a condition called anemia.
Total Cholesterol (TC)	<200 mg/dL	Cholesterol is a waxy, fat-like substance that is found in all the cells of your body. Cholesterol is needed for your body to work correctly. However, high cholesterol is a condition that causes levels of bad fats, or lipids, to be too high. High cholesterol increases your risk for heart attack, stroke, and peripheral artery disease. Many chronic kidney disease patients struggle with high total cholesterol due to changes in how these fat-like substances (lipids) are made and regulated in your body.
HDL Cholesterol	Male: >40 mg/dL; Female: >50 mg/dL	HDL cholesterol is known as the "good" cholesterol because of the protective effects on your heart.
LDL Cholesterol	<100 mg/dL	LDL cholesterol is known as the "bad" cholesterol. High levels of LDL cholesterol increase your risk for heart disease.
Triglycerides	<150 mg/dL	Triglycerides are another type of fat (lipid) found in your body. High triglycerides can increase your risk for heart disease. Many chronic kidney disease patients have increased production rate of triglycerides.
Sodium	134-145 mEq/L	Sodium is a mineral in your body that helps regulate fluid balance. When your kidneys do not filter properly, the amount of sodium in your body increases. High sodium in your blood is a major cause of high blood pressure and can lead to progression of your kidney disease. Limiting salt in your diet can help lower your blood pressure and swelling in your hands and feet.
Calcium (Ca)	8.6-10.2 mg/dL	Calcium is a mineral in your body that works to build strong bones. Vitamin D is responsible for keeping the right level of calcium in our blood. Many chronic kidney disease patients have low levels of Vitamin D, causing calcium levels to be low as well. Low levels of calcium can cause your bones to become weak or malformed.
Phosphorus	2.4-4.4 mg/dL	Normal working kidneys remove extra phosphorus in your blood. If your kidneys are not filtering normally, the kidneys cannot remove the extra phosphorus. Too much phosphorus in your body can be hard on your heart and lead to weak bones.
Potassium (K)	3.5-5.0 mEq/L	Potassium is a mineral in your body that helps your heart and other muscles in your body work normally. When your kidneys are not filtering blood normally, potassium levels can become too high, or, if you are using diuretics, your potassium can become too low. High potassium levels can cause patients to have chest pain or heart palpitations, requiring immediate medical care. Low potassium levels can cause heart palpitations, muscle cramps, and fatigue.