

Common Lab Tests and what it all means

When we run labs for wellness visits, screening for disease or monitoring medications we will provide a brief summary of the results and what is needed in the comment section below. If you want to dig a little deeper here is a brief guide to what the labs mean. Bold print are the more important labs.

CBC - Complete Blood Cell Counts

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| WBC | White Blood Cells | Total counts of white blood cells |
| RBC | Red Blood Cell Count | Actual number of red blood cells |
| Hgb | Hemoglobin | Amount of oxygen-carrying protein in the blood which generally reflects the number of red blood cells in the blood |
| Hct | Hematocrit | The percentage of a persons total blood volume that consists of red blood cells. |
| Plt | Platelets | Amber of platelets in blood, important for normal blood clotting. |
| MCV | Mean Corpuscular Volume | Measurement of the average size of a single red blood cell. Generally low in iron deficiency, high with B12 deficiency. |
| MCH | Mean Corpuscular Hemoglobin | Calculation of the average amount of hemoglobin in a single red blood cell. |
| RDW | Red Cell Distribution Width | Calculation of the variation in size of red blood cells. |
| MPV | Mean Platelet Volume | calculation of average size of platelets |

CMP - Comprehensive Metabolic Panel

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| Glu | Glucose | Glucose / Sugar in the blood, high levels indicate potential diabetes if over 126 on a fasting sample. |
| Na | Sodium | Sodium, an essential electrolyte |
| K | Potassium | Potassium, an essential electrolyte |
| BUN | Blood Urea Nitrogen | Waste from metabolism of protein by the liver, the BUN is filtered by the kidneys as waste. If elevated indicates impaired function of the kidneys or poor circulation to the kidneys. |
| Cr | Creatinine | A waste produce of muscles, it is produced and filtered at mostly uniform rates which helps determine kidney function. The ability of the body to eliminate creatinine is reduced slightly with age. |
| CO2 | Bicarbonate | Part of electrolytes, used to evaluate electrolyte imbalances which can cause changes in the balance of acid - base in the body. |
| Ca | Calcium | Calcium is an essential electrolyte. |
| Cl | Chloride | Chloride is an essential electrolyte |
| Albumin | Albumin | Albumin is an important protein, made by he body, that helps manage fluid volume and correlates with nutritional status. |
| Protein | Protein | A total measure of protein in the blood including albumin and globulins. |
| Alk Phos | Alkaline Phosphatase | An enzyme found in the liver, biliary tract (gall bladder), bone, intestine and placenta. |
| ALT | Alanine Transaminase | Primarily found in the liver, but also muscle and kidney cells. It is released with tissue damage, primarily with liver disease. |
| AST | Aspartate Aminotransferase | Also primarily found in the liver but also muscle and kidney cells. Elevation can be associated with decreasing order of concentration, in the liver, cardiac muscle, skeletal muscle, kidneys, brain, pancreas, lungs, leukocytes, and erythrocytes and is less specific than ALT for liver disease |
| GGT | Gamma glutamyl transpeptidase | Associated with liver, bile duct and kidney disease, but highest concentration is in the liver and bile ducts. |

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| T Billi | Total Billirubin | Bilirubin is a breakdown product of hemoglobin. Bilirubin is conjugated in the liver and excreted in the bile. Indirect bilirubin is the measure of unconjugated bilirubin, and direct bilirubin is the conjugated portion. Used to assess disease of the biliary tract from the liver, obstruction of the ducts or hemolysis (breakdown of red blood cells). |
| eGFR | Glomerular filtration rate | Index of kidney function, which varies by age, sex and body size. This normally declines with age. If low, your kidneys are not working as well as they should. Graded in stages: Stage 1 - kidney damage with normal function >90 Stage 2 - kidney damage with mild loss of function 60-89 Stage 3a - Moderate loss of kidney function 44-59 Stage 3b - Moderate to severe loss 30-44 Stage 4 - Severe loss of kidney function 25-29 Stage 5 - Kidney failure Less than 15 |

Lipid - Cholesterol Panel

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| Total Cholesterol | Total Cholesterol | Total counts of white blood cells |
| HDL | High Density Lipoproteins | This is considered the "good cholesterol" which helps transport bad cholesterol from the blood to the liver where it is excreted by the body. The higher the HDL the lower overall risk. |
| LDL | Low Density Lipoproteins | This is considered the "bad cholesterol" which leads to plaque build-up, which increases your risk of heart disease. The lower the better generally. |
| Ratio | Coronary Risk Ratio | Your HDL cholesterol divided by your total cholesterol. Optimal is less than 3.5 |
| TG | Triglycerides | Fat in the bloodstream, also linked to heart disease. They are stored in fat cells throughout the body. They come from food but your body can also make them. |
| Non-HDL | Non-HDL Cholesterol | A somewhat better indicator for cardiovascular risk than just LDL if you have high triglycerides or are not fasting. This is your total cholesterol minus your HDL cholesterol, so it contains all the "bad" types of cholesterol. Optimal is under 130, ideally under 100. |