

# McKinney Family Medicine

692 Eldorado Parkway, McKinney, TX 75070  
972.562.8388 | [mckmed@mckinneyfamilymed.com](mailto:mckmed@mckinneyfamilymed.com)

## Explanation of Laboratory Blood Tests

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|---|---|
| <b>Cholesterol</b>                      | A fat in the blood. Knowing your cholesterol is as important as knowing your blood pressure. Everyone should have their cholesterol checked. Elevated cholesterol is recognized as being responsible for increasing the risk of coronary heart disease.   |
| <b>Triglyceride</b>                     | Like cholesterol, is a fat in the blood contributor to hardening of the arteries. Triglycerides should be less than 400 mg / dl in a non-fasting state. If they are greater than 400 mg /dl then a fasting blood test should be examined.   |
| <b>Glucose</b>                          | The most direct, single test to uncover diabetes. A FASTING blood sugar may also be used to evaluate how a diabetic is controlling his or her disease. A NON-FASTING glucose taken more than 2 hours after eating should be less than 140 mg / dl. A NON-FASTING glucose taken less than 2 hours after eating should not be used for evaluation purposes. |
| <b>Sodium</b>                           | The major salt in the bodily fluid. Important in the body's water balance, the electrical activity of nerves and muscles, and controlling the acid content of the body.   |
| <b>Potassium</b>                        | A major salt in the body's cells. It plays a role in controlling the acid balance of the body, regulating the electrical activity of muscles, including the heart and plays a major role in maintaining body water levels. It also helps keep our heart in proper rhythm. Is essential for muscle and nerve function.                                     |
| <b>Bun</b>                              | A product of protein digestion eliminated by body through kidneys. An indicator of kidney function.   |
| <b>Creatinine</b>                       | An indicator of kidney function.  |
| <b>Uric Acid</b>                        | A product of digestion (removed by the kidneys). High levels in the blood may leave deposits in joints. Gout is the arthritis most often associated with an elevated uric acid.   |
| <b>Calcium</b>                          | A mineral essential for development and maintenance of healthy bones and teeth. It is important also for the muscles and normal function.   |
| <b>Phosphorus</b>                       | Together with calcium, is essential for healthy development of bones / teeth. Associated with hormone imbalance, bone disease and kidney disease. It is found mainly in bones and teeth.  |
| <b>Alkaline Phosphatase</b>             | An enzyme made mainly in the liver and bone. It is useful in determining liver and bone disease.  |
| <b>Protein</b>                          | Together with albumin, is a measure of the state of nutrition of the body.  |
| <b>Albumin</b>                          | One of the major proteins in the blood and a reflection of the general state of nutrition.  |
| <b>Globulin</b>                         | A major protein in the blood that carries infection-fighting antibodies.  |
| <b>Gamma glutamyl Transferase (GGT)</b> | An enzyme found mostly in the liver and kidney. A sensitive indicator of liver disease, especially alcoholism and liver disease associated with alcohol.  |
| <b>SGOT</b>                             | An enzyme found mostly in the liver and heart muscle. Abnormality may represent liver or heart damage.  |
| <b>LDH</b>                              | An enzyme found mostly in the heart, muscles, liver, kidney, brain, red blood cells, When an organ of the body is damaged, LDH is released in greater quantity into the blood stream.   |
| <b>Bilirubin</b>                        | The main bile pigment of the body. Causes the yellow tinge to blood. Helps in the digestion of food.  |
| <b>SGPT</b>                             | An enzyme found in the liver. Abnormality may represent liver disease.  |
| <b>WBC (White Blood Count)</b>          | The body's primary defense against disease. This test can tell a great deal about your state of health. White blood cells fight infection.  |

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| <b>RBC I (Red Blood Count)</b>           | Measures the number of oxygen carrying blood cells available to carry oxygen to all cells.   |
| <b>Hemoglobin</b>                        | All chemical compound that transports oxygen through the bloodstream to all cells of the body. We need oxygen for healthy organs. Hemoglobin gives the red color to blood and is inside the red blood cells.   |
| <b>Hematocrit</b>                        | Measures the volume of red cells compared with the volume of fluid carrying red blood cells (plasma). It is an indicator of how well the red blood cells can carry oxygen to the cells of the body.  |
| <b>MCV</b>                               | Mean corpuscular volume measures red blood cell volume which varies from normal with different diseases.   |
| <b>MCH</b>                               | Mean corpuscular hemoglobin measures hemoglobin levels within red blood cells which varies from normal with different diseases.  |
| <b>MCHC</b>                              | Mean corpuscular hemoglobin concentration which varies from normal with different diseases.  |
| <b>Platelet Count</b>                    | Blood cells involved with the forming of blood cells.  |
| <b>TSH<br/>TRH</b>                       | These 2 tests evaluate thyroid hormones which control the body's metabolic rate.   |
| <b>HDL Cholesterol</b>                   | High Density Lipoproteins are believed to take cholesterol away from cells and transport it back to the liver for processing or removal. Persons with high levels of HDL have less heart disease. The HDL's have become known as the good cholesterol. |
| <b>LDL Cholesterol</b>                   | Low Density Lipoproteins contain the greatest % of cholesterol and may be responsible for depositing cholesterol in the artery walls. For that reason, they could be known as "bad" lipoproteins. Level should be below 100.                           |
| <b>Cholesterol / HDL Ratio</b>           | The ideal ratio should be 3.1 or less. Anything below 4.1 is considered reasonably good. A ration 5.0 represents an average risk of heart disease. No longer the most important item to evaluate lipids.   |
| <b>LDL/HDL Ratio</b>                     | The ideal ratio should be 2.1 or less. A ratio greater than 6.0 represents a high risk of heart disease. Again this rate is less useful than the LDL level.  |
| <b>C-Reactive Protein</b>                | May indicate infection with Chlamydia Pneumonia, an organism which increases the risk of heart attacks and can be eradicated with antibiotics.   |
| <b>Ferretin</b>                          | Measures the level of iron in the blood over the preceding 2-3 months. Any level over 40 mg. indicates iron overload syndrome.   |
| <b>Insulin</b>                           | Hormone that allows the body to burn calories. If elevated may indicate Insulin Resistance Syndrome, which can block ovulation causing infertility, and increase the long term risk of diabetes and cardiovascular disease as well.                    |
| <b>Glycohemoglobin- (A1C Hemoglobin)</b> | Measures the blood glucose level over the preceding 2 months.  |