

Self-Ordered Laboratory Tests Explanation

HEMOGRAM (Complete Blood Count (CBC) w/out the diff) The Hemogram (HGM) includes several tests used to determine the number and type of blood cells.

- White Blood Cell count (WBC) may be elevated in infections and other diseases.
- WBC Differential and Absolute WBC indicate the number of each different type of WBC and may help in diagnose conditions such as infections, inflammation, allergies, leukemia or other blood disorders.
- Red blood cell count (RBC) indicates how your body is making the cells that are responsible for oxygen transport in your blood. High values should be evaluated by your physician. Low values may be associated with anemia or blood loss.
- Hemoglobin (HGB) is the measure of the protein that is responsible for oxygen transport in your red blood cells. Low values usually indicate anemia and should be evaluated by your physician.
- Hematocrit (HCT) is the percent of red blood cells compared to the amount of fluid (plasma) in your blood. This is used in conjunction with the other results to evaluate anemia.
- Mean Corpuscular Volume (MCV) is the measurement of size of red blood cells.
- Mean Corpuscular Hemoglobin (MCH) is the measurement of the amount of hemoglobin in the red blood cells.
- Mean Corpuscular Hemoglobin Concentration (MCHC) is the measurement of the concentration of hemoglobin in each red blood cell.
- Platelets are one of the factors of the blood clotting system. High or low values should be evaluated by your physician.

COMPREHENSIVE METABOLIC PANEL (12-HOUR FAST) The Comprehensive Metabolic Panel (CMP) is a group of 14 tests that measures several different substances in your blood. This panel includes Glucose, Electrolytes, Calcium, Creatinine, Blood Urea Nitrogen (BUN), Albumin, Alkaline Phosphatase, AST, ALT, Total Protein and Total Bilirubin. It is one of the most commonly ordered lab tests.

- BUN is a waste product filtered by the kidney. An elevated BUN can be seen with a high protein diet, heavy exercise, infections, dehydration or kidney disease.
- Glucose is a measure of sugar in your blood. Glucose levels, hemoglobin A1C values and clinical history are all needed for your physician to make a diagnosis of diabetes.
- Electrolytes include sodium, potassium, chloride and carbon dioxide. These elements are important for normal functioning of most cells and tissues of the body. Abnormal electrolytes can be associated with certain medications.
- Calcium is important for bone formation and cell function. Elevated or decreased calcium values should be evaluated by your physician. A normal calcium does not exclude osteoporosis.
- Creatinine is a protein waste product filtered by the kidneys. High levels are significant and usually require medical attention.
- Magnesium is a metallic element mainly found in the bones and is essential to life. Abnormal magnesium levels can occur in conditions that affect the functioning of your kidneys or intestines.

LIPID PANEL (12-HOUR FAST) The lipid panel includes Triglycerides, Cholesterol, LDL and HDL Cholesterol.

- Triglycerides are one of the blood fats that can be associated with heart disease, diabetes, kidney and liver disease. If you have elevated values after a 12 hour fast, you should discuss these results with your physician.
- Cholesterol is a blood fat that is used as a building block for the body's cells and hormone production. Increased levels have been shown to increase your risk of heart disease and stroke.
- Cholesterol or Low Density Cholesterol (LDL) is another substance that carries cholesterol in the blood. LDL is considered undesirable because it can deposit cholesterol in the walls of the blood vessels and can contribute to atherosclerosis. LDL Cholesterol is often termed "bad cholesterol."
- High Density Cholesterol (HDL) is the "good cholesterol." Higher values are associated with lower risk of heart disease. Vigorous exercise can help increase the blood levels of HDL.

THYROID-STIMULATING HORMONE (TSH) measures the amount of thyroid-stimulating hormone in the blood. This hormone is secreted by the pituitary gland in response to thyroid function. If the thyroid is not active enough, the body will secrete more TSH to stimulate the thyroid to produce hormones. If the thyroid is too active, the TSH level will fall in order to slow down thyroid activity. Free Thyroxine Four (FT4) is used to check how well the thyroid gland is working.

HEMOGLOBIN A1C Hemoglobin A1c is used to monitor the control of glucose (blood sugar) over time.

VITAMIN D helps to regulate levels of calcium and phosphorus in your blood. Vitamin D is vital for the growth and health of bone; without it, bones will be soft and unable to repair themselves. Vitamin D has also been shown to influence the growth and differentiation of many other tissues and to help regulate the immune system.