

# **Tri Valley Health System Direct Access Testing Available Screenings**

### **Lipid Panel**

Triglycerides are a type of fat, called lipids, in the body which act as a major form of stored energy. High triglycerides in your blood is linked to a higher risk of heart disease and stroke. Elevated levels may be caused by food and alcohol. It is recommend that you not eat for a least 8-10 hours to obtain an accurate result for this test. Low values are not generally consider significant.

Cholesterol is a waxy, fat-like substance that's found in all the cells in your body. Your body needs some cholesterol to make hormones, vitamins and build cells. Your body makes all the cholesterol it needs. Cholesterol is also found in foods from animal sources. High cholesterol contributes to a higher risk of cardiovascular diseases such as heart attack and stroke.

LDL (Low Density Lipoprotein) Cholesterol makes up most of your body's cholesterol. Excess LDL cholesterol contributes to plaque buildup (atherosclerosis) in your arteries. The lower the amount of LDL cholesterol, the lower the risk of developing heart disease.

HDL (High density lipoprotein) cholesterol can be thought of as the "good" cholesterol. HDL absorbs LDL in the blood and carries it back to the liver. The liver breaks down the LDL and flushes it from the body. A healthy level may protect against heart attack and stroke.

# **CBC – Complete Blood Count with differential**

A complete blood count, or CBC, is a blood test that measures many different parts and features of your blood, including:

Red blood cells carry oxygen from your lungs to the rest of your body.

White blood cells fight infections and other diseases. There are five major types of white blood cells.

Platelets stop bleeding by helping your blood to clot.

Hemoglobin is a protein in red blood cells that carries oxygen from your lungs to the rest of your body.

Hematocrit is a measurement of how much of your blood is made up of red blood cells

Mean corpuscular volume is a measure of the average size of your red blood cells.

## **Comprehensive Metabolic Panel (CMP)**

Alaminine Aminotransference, ALT (SGPT) is an enzyme that plays a role in processing proteins. It is found mainly in the liver. It can also be found in the heart, muscles, and kidneys. Damage from alcohol, strenuous exercise and a number of diseases can cause high values for both AST (SGOT) and ALT (SGPT).

**Albumin** is the most plentiful protein in the blood. It is produced primarily in the liver and helps keep the fluid portion of the blood within the blood vessels. Low albumin levels might be the result of kidney disease, liver disease, inflammation or infections. High levels can be caused by dehydration.

**Alkaline Phosphatase (ALKP)** is an enzyme that is found in many body tissues, but the most important sites are liver, bone, bile ducts and small intestine. A high level of alkaline phosphatase in your blood may indicate bone, liver or bile duct disease. Certain drugs may also cause increased levels. Growing children, because of bone growth, normally have higher levels than adults. Low values are not generally considered significant.

Asparate Aminiotransference, AST (SGOT) The AST enzyme that helps the body break down amino acids. It is found in liver, heart and muscles. It is released into the blood stream when any of these organs are damaged. Increased levels are usually associated with liver disease or heart attacks.

**Bilirubin, Total** comes from the breakdown of old red cells in the blood. A high bilirubin level in the blood can be caused by too many red bold cells being destroyed (hemolyzed), by liver disease, or by a blockage of bile ducts.

**BUN (Blood Urea Nitrogen)** is a waste product from protein breakdown in the liver. It is excreted by the kidneys. If kidney function is impaired or if a person is dehydrated, the BUN level will increase. Internal blood loss, high protein diets, and/or strenuous exercise can also cause a high BUN level. A low BUN level may be the result of liver disease, poor diet, pregnancy, or too much water.

**Calcium** is one of the most important elements in the body, essential for maintenance and repair of bone and teeth, heart function and blood clotting. Low levels of calcium in the blood are associated with malnutrition. High levels can be caused by bone disease, problem with the parathyroid glands, cancer, or taking excessive amounts of calcium or vitamin D supplements.

CO2 (Carbon Dioxide) test measures how much CO2 is in your blood. CO2 levels are affected by kidney and lung function.

**Chloride** is also one of the body's minerals. Involved with water balance, most body chloride comes from salt in the diet. A high chloride level may mean severe dehydration, certain kidney disorders or hyperventilation. A low chloride level may result from excessive vomiting, diarrhea, severe burns, excessive sweating or kidney failure. Borderline low or high levels of chloride have very little significance.

**Creatinine** is used to check how well your kidneys are filtering your blood. In certain types of kidney disease, the ability of the kidneys to clear the blood of creatinine decreases and blood levels of creatinine increase. High values require medical evaluation by your health care provider, especially when associated with high BUN results.

**Glucose** is the primary energy source for all body tissues. Glucose mainly comes from carbohydrates in food and drink which can be used to either produce immediate energy or be stored in the liver or as fat throughout the body. High blood glucose levels (hyperglycemia) after fasting for 8-10 hours might indicate you have diabetes. A low glucose level accompanied with symptoms such as weakness, nausea, sweating and difficulty thinking clearly, is suggestive of hypoglycemia.

**Potassium** is found primarily inside cells. It helps maintain water balance as well as proper function of nerves and muscles. Low or high levels in the blood are of critical significance and should be evaluated by your provider. This is especially important if you are taking a diuretic or heart medication. A high level may indicate kidney or liver disease, too much medication or bodily injury, such as burns. A lower level of potassium can develop rapidly, most frequently caused from vomiting, diarrhea, adrenal gland disorders or use of diuretics.

**Protein, Total** is a measure of the total amount of protein in your blood. A low level may indicate a liver or kidney problem as well as malnutrition or undereating. High levels can indicate dehydration. A low or high total protein does not indicate a specific disease, but it does mean that some additional tests may be required to determine if there is a problem.

**Sodium** plays an important role in water balance in your body. A high level can be caused by dehydration, excessive salt intake in your diet or certain diseases. A low level of sodium may be caused by diarrhea, vomiting, or excessive sweating. Numerous drugs, including diuretics, certain blood pressure medications and steroids, may alter the sodium level.

### PSA – Prostate-Specific Antigen

PSA is used primarily to screen for prostate cancer. It can be used to determine the need for further testing of the prostate, to monitor the effectiveness of treatment of prostate cancer, and/or to detect the recurrence of prostate cancer.

# Vitamin D

Vitamin D testing is used to measure how much vitamin D is in your body so a deficiency can be corrected. The main function of vitamin D is to aid in the absorption of calcium during bone formation. Maintaining adequate levels of vitamin D supports healthy bones. Vitamin D also has anti-inflammatory and other properties that play a role in maintaining normal muscle, immune, and nervous system functions.

# TSH (Thyroid Stimulating Hormone)

TSH is the pituitary hormone that controls thyroid gland function. It stimulates the thyroid to produce thyroid hormone. TSH levels that are too high or too low may be a sign of a thyroid problem.

### FT4 (Free thyroxine)

FT4 is the major type of hormone released by the thyroid. FT4 levels that are too high or too low may be a sign of a thyroid problem.

#### A1C (Hemoglobin A1C)

A1C measures the amount of glucose attached to hemoglobin. It measures your average blood glucose levels over the past 3 months.

# **Uric Acid**

This test measures the amount of uric acid in your blood. High levels of uric acid can be linked to cases of gout as well as kidney disease.