



# Wellness **CLINICAL** **INFORMATION** Reference Sheet

## LIPID TESTS

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### *Glucose*

Glucose is the main source of energy for living organisms. Glucose rises with diabetes mellitus and with many other illnesses.

### *BUN*

Blood Urea Nitrogen (BUN) is an end product of protein metabolism. BUN levels rise in Kidney Disease.

### *Creatinine*

Creatinine is a metabolic product released from muscle tissue and excreted from the kidneys.

### *Sodium, Potassium, Chloride, Carbon Dioxide*

Measurements are used in the diagnosis and treatment of dehydration, metabolic disorders or diseases involving electrolyte imbalance.

### *Calcium*

Useful in diagnosis of parathyroidism, some bone diseases, and advanced Kidney Failure, calcium is an essential co-factor for many enzymes, and it is the main constituent in bone.

### *Uric Acid*

Uric Acid is the end product of purine metabolism. Uric Acid is useful in the diagnosis or treatment of gout and in patients with decreased kidney function.

### *Bilirubin*

Bilirubin is a breakdown product of red blood cells. Abnormally high total bilirubin levels may occur in individuals with liver and gallbladder diseases and may cause jaundice.

### *Protein Total*

Protein in blood includes two major components, albumin and globulin. Protein levels fall in chronic disease, malnutrition and cancer.

### *Albumin*

Albumin is the largest portion of total blood protein. Decreased blood albumin may indicate many disorders, including poor nutrition and advanced liver disease.

### *Alkaline Phosphatase*

Alkaline Phosphatase is an enzyme found primarily in the liver and bones. Elevated levels may indicate presence of bone or liver disorders. The enzyme activity also increases following fractures, in growing children and pregnant women.



### ***SGOT (AST)***

Aspartate Aminotransferase (AST) is an enzyme found in the liver and in cardiac and skeletal muscles. AST may rise in liver, heart and muscle disorders and can also rise following strenuous prolonged exercise.

### ***SGPT (ALT)***

Serum glutamic pyruvic transaminase (SGPT) is found in serum and in various bodily tissues but is most commonly associated with the liver. Significantly elevated levels of SGPT often suggest the existence of other medical problems such as viral hepatitis, diabetes, congestive heart failure, liver damage, bile duct problems or infectious mononucleosis.

### ***Cholesterol***

Cholesterol is a fatty substance called a lipid. A certain amount of cholesterol is essential for the body's cells and hormones. The body manufactures this cholesterol in the liver in the proper amount; therefore, cholesterol from animal food sources is merely excess fat. High levels indicate an increased risk of heart disease. Levels can be controlled with diet, exercised and/or medication.

### ***Triglycerides***

Triglycerides result from the breakdown of carbohydrates and certain fats. Triglycerides are fats (lipids) which make up 95% of the fat stored in your tissues providing a reserve of energy. Increased triglycerides are indicative of a metabolic abnormality and along with elevated cholesterol, is considered to be a risk factor in heart disease.

### ***HDL***

HDL is also called the "good" cholesterol. HDL helps eliminate LDL cholesterol from the blood stream. A high HDL level indicates a healthy metabolism of fat and provides some protection from heart disease.

### ***LDL***

LDL and VLDL are called "bad" cholesterol. Too much LDL can line the blood vessels, reduce the size of the arteries, and in turn, lead to cardiac disease. A high fat diet, lack of exercise, stress and caffeine all increase the LDL level. Diabetes, various drugs and genetic predisposition may also affect these levels.

### ***Cholesterol/HDL Ratio***

CHOL/HDL is a mathematical calculation that indicates how much "good" cholesterol there is in relationship to total cholesterol. This ratio is important because it indicates whether or not the body is efficient in metabolizing fat. A ratio of 5.0 or less is associated with a lower risk of heart disease.

### ***CBC***

The CBC is the single most ordered blood test. The CBC is a screening test used to assist in the diagnosing of infections, diseases of dietary origin, autoimmune diseases, leukemia, anemia, organ failures, bone marrow disease, hemorrhaging, congenital heart disease or certain other blood disorders.

## **MISCELLANEOUS TESTING**

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### ***Hemoglobin A1C (HbA1c)***

HbA1c is proportional to the average concentration of blood glucose over the circulating life span of hemoglobin in the red cell approximately 120 days. Elevated levels of HbA1c suggest the need for more aggressive treatment of diabetes control. The American Diabetes Association recommends that a primary goal of therapy should be a HbA1c of 7%. Results of this test should be always interpreted in conjunction with the patient's medical history, clinical presentation and other findings.

**Questions about your results? Please contact your *primary care provider*.**