## **Blood Tests**

**Glucose:** Glucose is a simple sugar with a primary function of providing energy to the cells of your body. Good sources of sugar include fruit, vegetables, milk and grains. Glucose rises with diabetes mellitus and with many other illnesses.

**BUN (Blood Urea Nitrogen):** Blood Urea Nitrogen is a breakdown product of muscle and is excreted from the kidneys. The clearance of this substance from your blood is used to evaluate your kidney function.

**Sodium:** Sodium plays a key role in the fluid balance of your body and should be restricted if you have high blood pressure or heart failure. It is commonly found in salt and many processed and canned foods.

**Potassium:** Potassium plays an important role in nerve and muscle function. It is found in milk, bananas, and many vegetables.

**Chloride:** Chloride is bound primarily to sodium and potassium in the form of salt. It plays a role in the functioning of the membranes in the cells of you body.

**Magnesium:** Magnesium plays an important role in nerve and muscle function. Green leafy vegetables, nuts, and cereal grains are a good source of this mineral.

**Calcium:** Calcium in used by your body for bone and tooth formation. Milk and dairy products are a good source of this mineral.

**Phosphorus:** Phosphorus plays an important role in your body's production of energy, and like calcium, it is used for bone and tooth formation. Milk (particularly skim milk), dairy products, meat, fish and eggs are good sources for phosphorus.

T. Protein (Total Protein): Total protein is made up of albumin and globulin.

**Albumin:** Albumin is a protein that is a good reflection of your state of nutrition.

**Globulin:** Globulin is a protein that helps fight disease.

**Albumin/Globulin Ratio:** The Albumin/Globulin ratio is simply the ration of albumin to globulin.

**Total Bilirubin:** Bilirubin is a normal metabolic degradation product of red blood cells. It is metabolized in your liver and excreted into your intestinal tract. High levels are associated with yellow skin or jaundice.

Alk. Phos. (Alkaline Phosphatase): Alkaline phosphatase is an enzyme located primarily in the cells of your liver and bone. (Enzymes are proteins that act as catalysts for chemical reactions; they are normally found throughout your body in your blood.)

**LDH (Lactic Dehydrogenase):** LDH is an enzyme found primarily in the cells of your heart, lungs, and blood. (Enzymes are proteins that act as catalysts for chemical reactions; they are normally found throughout your body in your blood.)

**GGT (Gamma Glutamyltrannsaminase):** GGT is an enzyme located primarily in your liver. (Enzymes are proteins that act as catalysts for chemical reactions; they are normally found throughout your body in your blood.)

**AST (Aspartate Transferase):** AST is an enzyme that is located primarily in your heart and liver. (Enzymes are proteins that act as catalysts for chemical reactions; they are normally found throughout your body and in your blood.)

**ALT (Alanine Transferase):** ALT is an enzyme that is located primarily in your liver. (Enzymes are proteins that act as catalysts for chemical reactions; they are normally found throughout your body in your blood.)

**Uric Acid:** Uric Acid is a normal product of cell breakdown in your body. When uric acid deposits in your joints (e.g., knees or toe), it can result in a clinical condition known as gout.

**Iron:** Iron plays an important role in red blood cell formation. Good sources of iron include beef, liver and beans.

**Iron Binding Capacity:** Total iron blinding capacity reflects the amount of transferring that is available to bind with iron.

% Saturation: %Saturation reflects the percentage of iron that is bound to a protein called transferrin.

**Triglycerides:** Triglycerides are the lipids (fatty substances) that represent the major storage form of fat in your body. Your level may be high if you do not fast for your blood test. High triglyceride levels have been associated with coronary artery disease.

**Cholesterol:** Cholesterol is a lipid (fatty substance) that plays an important role in the creation of steroid hormones and bile acids. Your body makes more cholesterol that it needs so extra cholesterol, that is ingested primarily from animal fat, can lead to a "fatty" build up in your arteries.

**HDL** Cholesterol: HDL Cholesterol is one component of your total cholesterol. HDL cholesterol is also known as "good" or "cardioprotective" cholesterol, because it helps to prevent heart disease.

**LDL** Cholesterol: LDL cholesterol is one component of your total cholesterol. LDL cholesterol is the "bad" cholesterol, and its level is associated with heart disease risk.

**Chol/HDLC Ratio:** The total cholesterol/HDL ratio is used to determine your risk of heart disease by comparing your ratio with the individuals who were in the Framingham Heart Study.

White Blood Cells (WBC): White blood cells play an important role in fighting infection.

**Red Blood Cells (RBC):** Red blood cells travel through your blood vessels to carry oxygen from your lungs to all the cells of your body. Your red blood cells then pick up carbon dioxide (a normal body cell waste product) and deliver it to your lungs to be breathed out.

**Hemoglobin (HGB):** Hemoglobin is the major protein of your red blood cells. Hemoglobin is the actual part of your red blood cell that binds with oxygen or carbon dioxide.

**Hematocrit (HCT):** Your blood is made up of cells and serum (Fluid). The hematocrit is the portion of your blood that is made up of cells and not serum.

MCV (Mean Corpuscular Volume): Your MCV is the volume (size) of your average red blood cell.

MCH (Mean Corpuscular Hemoglobin): Your MCH is the amount of hemoglobin in your average red blood cell.

MCHC (Mean Corpuscular Hemoglobin Concentration): Your MCHC is the ratio of the amount of hemoglobin to the volume (size) of your average red blood cell.

**Platelets:** Platelets are the part of your blood that play an important role in blood clotting in response to injury.

**Neutrophils:** Neutrophils are a type of white blood cells that helps fight bacterial infections.

**Lymphocytes:** Lymphocytes are a type of white blood cell that helps fight viral infections.

**Eosinophils:** Eosinophils are a type of white blood cell that is often elevated in association with allergic reactions.

**Basophils:** Basophils are a type of white blood cells that can be increased in disease that result in increased cell production in bone marrow.

**Thyroid Stimulating Hormone (TSH):** TSH is the most sensitive screening test for evaluating your thyroid gland. The thyroid gland is responsible for regulating your body's metabolism.

**Prostate Specific Antigen (PSA):** The PSA is used primarily to screen for prostate cancer. Abnormal levels may be associated with benign prostatic enlargement as well as inflammation or injury to the prostate.