

What Your Blood Chemistry Results Tell You

ALAMININE AMINOTRANSFERENCE, ALT (SGPT) is found mainly in the liver and is an indicator of liver disease when the value is high.

ALBUMIN is a protein produced by the liver and circulated in the blood.

ALKALINE PHOSPHATASE is found in many body tissues, but the most important sites are bone, liver, bile ducts and gut. High levels may indicate bone, liver, or bile duct disease.

ASPARTATE AMINOTRANSFERENCE, AST (SGOT) is found in the heart, liver and muscles and is released into the blood when any of these organs are damaged.

BILIRUBIN, DIRECT is formed in the liver. High levels may indicate liver disease.

BILIRUBIN, TOTAL is the pigment in the blood. High levels may indicate liver disease.

BUN (blood urea nitrogen) is a waste product from protein breakdown in the liver. High levels may be an indication of kidney disease.

CALCIUM is one of the most important elements in the body. High levels can be caused by bone disease, excessive use of antacids and milk, cancer, overdosing on Vitamin D and some hormone disorders.

CHLORIDE is also one of the body's minerals. A high chloride level may be associated with kidney disorders.

CHOLESTEROL is an essential fat found in nearly every body tissue. High levels may indicate risk of heart disease and clogged blood vessels.

CHOLESTEROL/HDL RATIO is calculated by comparing the total cholesterol level to the HDL cholesterol level.

CREATININE is a waste product of the body. High levels may indicate kidney disease.

ESTIMATED GLOMERULAR FILTRATION RATE (eGFR) TEST is the best overall measure of how your kidneys are functioning. Low levels are associated with kidney disease or cardiovascular disease.

GAMMA-GLUTAMYLTRANSFERASE (GGTP) is found in the liver. High levels are associated with liver disease.

GLOBULINS are proteins that can be formed in the liver or the immune system. Abnormal levels should be followed up by your health care provider.

GLUCOSE is the best energy source for all body tissues. High blood glucose levels after fasting for 12 hours might indicate you have diabetes.

HDL CHOLESTEROL High density lipoprotein (HDL) is the "good" cholesterol. The higher your level is the

better!

IRON helps make red blood cells that transfer oxygen to the cells. Too much iron can cause injury to the heart, pancreas, joints, testicles, ovaries, etc.

LACTATE DEHYDROGENASE (LDH or LD) High levels can result from problems with your heart, liver, muscles, and red blood cells.

LDL CHOLESTEROL Low density lipoprotein (LDL) is the “bad” cholesterol. The **LOWER** the amount of LDL cholesterol, the **LOWER** the risk of developing heart disease.

MAGNESIUM Low magnesium level in the blood may indicate alcoholism, severe malnutrition, vomiting or diarrhea. High values may indicate kidney disease.

PHOSPHATE Very low levels of phosphate can be associated with starvation or malnutrition, leading to muscle weakness. High levels of phosphate are associated with kidney disease.

POTASSIUM is also one of the body’s principal minerals, found primarily inside cells. Low or high levels in the blood are of critical significance and should be quickly evaluated by your health care provider.

PROTEIN, TOTAL 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 is one of the body’s principal minerals, regulated by the kidneys. High level can be caused by dehydration, excessive salt intake in your diet or certain diseases. Low level of sodium may be caused by diarrhea, vomiting, or excessive sweating.

TRIGLYCERIDES are a fatty substance which acts as a major form of stored energy. High levels may be caused by food and alcohol.

TSH (Thyroid Stimulating Hormone) is a hormone that controls thyroid gland function. It stimulates the thyroid to produce thyroid hormone. High or low levels may indicate thyroid disease.

URIC ACID is a byproduct from the breakdown of the body’s own cells and certain proteins. High levels of uric acid in your blood may cause gout, arthritis or kidney stones.

VITAMIN D is obtained from sun exposure, food and supplements. Vitamin D promotes absorption of calcium and is important for bone growth. Without sufficient vitamin D, bones can become thin and brittle. Deficiency can arise from inadequate intake coupled with inadequate sunlight exposure. Research also suggests vitamin D may provide protection against hypertension (high blood pressure), cancer, and several autoimmune diseases. Populations who may be at a high risk for vitamin D deficiencies include the elderly, obese individuals, exclusively breastfed infants, and those who have limited sun exposure. Also, individuals who have fat malabsorption syndromes (e.g., cystic fibrosis) or inflammatory bowel disease (e.g., Crohn's disease) are at risk.

PROSTATIC SPECIFIC ANTIGEN (PSA) (OPTIONAL BLOOD SCREENING FOR MALES) High levels of PSA may occur in men with prostate cancer or non-cancerous prostatic diseases.