Blood Chemistry Tests and the Information They Provide

**Albumin (ALB)**
Reduced levels of this protein, which is produced by the liver, can point to chronic liver or kidney disease, or parasitic infections such as hookworm.

**Alanine aminotransferase (ALT)**
An enzyme that becomes elevated with liver disease.

**Alkaline Phosphatase (ALKP)**
An enzyme produced by the biliary tract (liver). Elevated levels can indicate liver disease or Cushing’s syndrome.

**Amylase (AMYL)**
The pancreas produces and secretes amylase to aid in digestion. Elevated levels can indicate pancreatic and/or kidney disease.

**Blood Urea Nitrogen (BUN)**
BUN is produced by the liver and excreted by the kidneys. Testing for it helps to detect liver and kidney abnormalities.

**Calcium (Ca+2)**
Increased levels of this mineral can be an indicator of certain types of tumors, parathyroid or kidney disease.

**Cholesterol (CHOL)**
Elevated levels of cholesterol are seen in a variety of disorders including hypothyroidism and diseases of the liver or kidneys.

**Creatinine (CREA)**
Creatinine is a by-product of muscle metabolism and is excreted by the kidneys. Elevated levels can indicate kidney disease or urinary obstruction.

**Blood Glucose (GLU)**
High levels can help diagnose diabetes and can indicate stress. Low levels can indicate liver disease.

**Phosphorus (PHOS)**
Can be an indicator of kidney disease when elevated.

**Total Bilirubin (TBIL)**
A component of bile, bilirubin is secreted by the liver into the intestinal tract. TBIL helps diagnose problems in the bile ducts.

**Total Protein (TP)**
The TP level can indicate a variety of conditions including dehydration and liver, kidney or gastrointestinal tract diseases.

**Electrolytes (Sodium, Potassium, Chloride)**
The balance of these chemicals is vital to blood health; abnormal levels can be life-threatening. Electrolyte tests are important in evaluating vomiting, diarrhea, and cardiac symptoms.

**Gamma Globulin**
Immune competence is provided by and maintained by two cellular systems that involve lymphocytes. These cells are produced by the body’s primary (bone marrow and thymus) and secondary (lymph nodes and spleen) lymphatic organs. Increased levels can be due to infections involving the whole body (systemic), cancer of the lymph nodes, bone cancer, parasites in the system or liver disease. Decreased levels indicate deficiencies in the immune system.

**T4**
Thyroid function.