Understanding Your Pet's Blood Work

Complete Blood Count (CBC)

This is the most common blood test performed on pets and people. A CBC gives information on hydration status, anemia, infection, the blood's clotting ability, and the ability of the immune system to respond. This test is essential for pets with fevers, vomiting, diarrhea, weakness, pale gums, or loss of appetite. If your pet needs surgery, a CBC can help detect bleeding disorders or other unseen abnormalities.

❑ **HCT (hematocrit)** measures the percentage of blood made up by red blood cells. Low numbers indicate anemia (blood loss) while high numbers may indicate dehydration or other problems.

❑ **Hb and MCHC** (hemoglobin and mean corpuscular hemoglobin concentration) Hemoglobin is the molecule that carries oxygen in the blood. Low numbers indicate problems with the ability to carry oxygen.

❑ **WBC** (white blood cell count) measures the body's immune cells. High numbers may indicate infection, inflammation or cancer. Low numbers may indicate immune suppression, cancer or overwhelming infection.

❑ **GRANS and L/M** (granulocytes and lymphocytes/monocytes) are specific types of white blood cells.

❑ **EOS** (eosinophils) are a specific type of white blood cells that may indicate allergic or parasitic conditions.

❑ **PLT** (platelet count) measures cells that form blood clots.

❑ **RETICS** (reticulocytes) are immature red blood cells. High levels indicate regenerative anemia.

Blood Chemistries

These common blood serum tests evaluate organ function, electrolyte status, hormone levels, and more. They are important in evaluating any sick pet, pets receiving long-term medications, pet's undergoing anesthesia and as screening tests for elderly pets.

❑ **ALB** (albumin) Is a serum protein that helps evaluate hydration, hemorrhage, and intestinal, liver, and kidney disease.

❑ **ALKP** (alkaline phosphatase) elevations may indicate liver damage, Cushing's disease, uterine infection, bone cancer and active bone growth in young pets. This test is especially significant in cats.

❑ **ALT** (alanine aminotransferase) is a sensitive indicator of active liver damage but doesn't indicate the cause.

❑ **AMYL** (amylase) elevations help us evaluate pancreatitis.

❑ **AST** (aspartate aminotransferase) increases may indicate liver, heart, or skeletal muscle damage.

❑ **BUN** (blood urea nitrogen) indicates kidney function. An increased blood level is called azotemia and can be caused by kidney, liver, and heart disease, urethral obstruction, shock, and dehydration.

❑ **Ca** (calcium) deviations can indicate a variety of diseases. Cancer, hyperparathyroidism, kidney disease, vitamin D toxicity and low albumin are just a few of the conditions that alter serum calcium.

❑ **CHOL** (cholesterol) is used to supplement diagnosis of hypothyroidism, liver disease, Cushing's disease, and diabetes mellitus.

❑ **CI** (chloride) is an electrolyte often lost with vomiting and Addison's disease. Elevations often indicate dehydration.

❑ **Cortisol** is a hormone that is involved in stress response. High numbers may indicate Cushing's disease while low numbers may indicate Addison's disease (ACTH stimulation test).

❑ **CREA** (creatinine) reveals kidney function. High numbers indicate loss of kidney function but not the cause

❑ **GGT** (gamma glutamyl transferase) is an enzyme that indicates liver disease or corticosteroid excess.

❑ **GLOB** (globulin) is a blood protein that often increases with chronic inflammation and certain disease states.

❑**GLU** (glucose) Is a blood sugar. Elevated levels may indicate diabetes mellitus. Low levels can cause collapse, seizures, or coma.

❑ **K** (potassium) is an electrolyte lost with vomiting, diarrhea, or excessive urination. Increased levels may indicate kidney failure, Addison's disease, dehydration, and urethral obstruction. High levels can lead to cardiac arrest. Low levels lead to weakness and disorientation.

❑ **LIP** (lipase) is an enzyme that may indicate pancreatitis when it is elevated.

❑ **Na** (sodium) is an electrolyte lost with vomiting, diarrhea, and kidney and Addison's disease. This test helps indicate hydration status.

❑ **PHOS** (phosphorus) elevations are often associated with kidney disease, hyperthyroidism, and bleeding disorders.

❑ **TBIL** (total bilirubin) elevations may indicate liver or hemolytic disease. This test helps identify bile duct problems and certain types of anemia.

❑ **TP** (total protein) indicates hydration status and provides additional information about the liver, kidneys, and infectious diseases.

❑ **T4** (thyroxine) is a thyroid hormone. Decreased levels often signal hypothyroidism in dogs, while high levels Indicate hyperthyroidism in cats.