PET KARE CLINIC

www.petkareclinic.com
info@petkareclinic.com

Business: (970) 879-5273
Fax: (970)879-2691
102 Anglers Drive P.O. Box 881295
Steamboat Springs, CO 80487

Understanding Your Pet's Blood Work

Blood tests help doctors determine the causes of illness and identify surgical risk factors accurately, safely, and quickly. We can also monitor the progress of medical treatments. To help you understand your pet's results, we are going to review some common tests. If you have questions, please don't hesitate to ask any member of the Pet Kare staff. It's important for you to understand our recommendations and to be a partner in your pet's care.

Complete Blood Count (CBC)

A CBC is the most common test performed on pets and people. It gives information on hydration status, anemia, infection, 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 may be undergoing surgery, a CBC can detect bleeding disorders or other unseen abnormalities.

- **HCT** (Hematocrit) measures the percentage of red blood cells to detect anemia and dehydration
- **HGB** (Hemoglobin) the oxygen-carrying pigment of red blood cells. Can be increased in diabetes, hyperthyroidism, kidney damage etc, and decreased in various infections.
- **MCV, MCH and MCHC** (Mean corpuscular volume: classifies the mean size of the red blood cells, MCH: the mean corpuscular hemoglobin, MCHC: the mean corpuscular hemoglobin concentration which accounts for differences in the size of the red cells.)
- **RDW** (Red cell distribution width) A value representing the variance in the size of the red cells.
- **WBC** (white blood cells) measures the body's immune cells. Increases or decreases can indicate certain diseases of infections.
- **MONO (**Monocytes) Immature macrophages, their primary role will be to eat foreign material and pathogens that aren't being controlled by neutrophils. Elevated in infections, stress, chronic inflammation.
- **LYM** (Lymphocytes) The B and T cells of the immune system. These cells can elevate during times of infection, inflammation or in various other diseases and may be decreased with stress, steroids or various viral infections.
- **NEU** (Neutrophils) Neutrophils kill and eat microorganisms and initiate and modify inflammation. Increases often indicate active infection or stress while low numbers can be found in very severe infections, bone marrow problems or toxemia.
- **EOS** (Eosinophils) are a specific type of white blood cells that indicate allergic or parasitic conditions.
- **PLT** (platelet count) measures the cells that form blood clots, also known as thrombocytes.
- **RETICS** (reticulocytes) are immature red blood cells. High levels indicated regenerative anemia.
- **FIBR** (fibrinogen) is an important clotting factor.

Blood Chemistries

These common blood serum tests evaluate organ function, electrolyte status, hormone levels and more. They are important in evaluating your pet's health status before anesthesia, especially your pet's ability to process and excrete anesthetics. These tests are also important for older pets, those with vomiting and diarrhea or toxin exposure and pets receiving long-term medications.

Kidney Chemistries

- **BUN** (blood urea nitrogen) indicates kidney function. An increased blood waste product level is called azotemia and can be caused by kidney, liver and heart disease, urethral obstruction, shock and dehydration.
- **CREA** (creatinine) reveals kidney function. This test helps distinguish between kidney and non-kidney causes of elevated BUN.
- **PHOS** (phosphorus) are often associated with kidney disease, hyperthryoidism and bleeding disorders.
- **Ca** (calcium) deviations can indicate a variety of diseases. Tumors, hyperparathyroidism, kidney disease and low albumins may later serum calcium levels.

Liver Chemistries

- **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 and active bone growth in young pets. Can indicate bile stasis such as in conditions such as pancreatitis, cholangitis, or cholangiohepatitis.
- **ALT** (alanine aminotransferase) is a sensitive indicator of active liver damage but does not indicate cause. Signifies liver damage within the last 2-5 days.
- **AST** (asparatate transferase) increases may indicate liver, heart or skeletal muscle damage.
- **T-BIL** (total bilirubin) elevations may indicate liver or hemolytic disease. This test helps identify bile duct problems and certain types of anemia.
- **GGT** (gamma glutamyl transferase) is an enzyme that indicates liver disease or corticosteroid excess.

Other Chemistries/Tests

- **TP** (total protein) indicates hydration status and provides additional information about liver, kidneys and infectious diseases.
- **GLU** (glucose) is a blood sugar. Elevated levels may indicate diabetes mellitus. Low levels may cause collapse, seizures, or coma.
- **AMYL** (amylase) elevation may indicate pancreatitis or kidney disease.
- **LIP** (lipase) is an enzyme that may indicate pancreatitis.
- **CHOL** (cholesterol) is used to supplement diagnosis of hypothyroidism, liver disease, Cushing's disease and diabetes mellitus.
- **GLOB** (globulin) is a blood protein that often increases with chronic inflammation and certain disease states.
- **T4** (serum tetraiodthyronine) is a thyroid hormone. Increased levels often signal hyperthyroidism in cats. Decreased levels often signal hypothyroidism mostly seen in dogs.

- **Cortisol** is a hormone that is measures in tests of Cushing's disease (low-dose dexamethasone suppression test) and Addison's disease (ACTH stimulation test).

Electrolytes

- **Cl** (chloride) is often lost with vomiting and Addison's disease. Elevations often indicate dehydration.
- **Na** (sodium) is often lost with vomiting, diarrhea, kidney disease and Addison's disease. This test helps indicate hydration status.
- **K** (potassium) is often 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.

Other Routine Tests

- **CANINE/FELINE HEARTWORM** – this tests for deadly parasites that can live in the heart or lungs
- **Felv/FIV** – feline leukemia virus and feline immunodeficiency virus
- **cPLI –** Canine pancreatic lipase, indicates Pancreatitis if positive.
- **Parvo -** Tests stool for parvovirus particles to rule out this life threatening disease.
- **Bile Acids** – Assesment of liver function, versus just knowing the liver is damaged.