



## **UNDERSTANDING YOUR PET'S BLOODWORK**

Blood tests help us to determine your pet's health status & causes of illness, accurately, safely & quickly. They also let us monitor the progress of medical treatments. If you have questions, please feel free to ask a staff member. We want you to understand our recommendations and be a partner in your pet's care.

### **COMPLETE BLOOD COUNT (CBC)**

A common test, a CBC gives information on hydration status, anaemia, infection, the blood's clotting ability and the immune system's ability to respond.

- HCT (haematocrit) measures the percentage of RBC (red blood cells) to detect anaemia and hydration.
- Hb & MCHC (Haemoglobin & Mean Corpuscular Haemoglobin Concentration) measure haemoglobin, the oxygen-carrying pigment of red blood cells (corpuscles).
- WBC (White Blood Cells). WBC count classifies and measures the body's immune cells. Increases or decreases indicate certain diseases or infections.
- Neutrophils – the most abundant type of WBC. Respond quickly to inflammation & stress & have antimicrobial properties.
- Lymphocytes – WBC that come from lymphoid tissue such as lymph nodes & spleen. Play a role in the immune response.
- Monocytes - develop into macrophages which then respond to inflammation, infection & immune reactions. Interact with lymphocytes to facilitate antibody production.
- EOS (eosinophils) are a specific type of WBC that, if elevated, may indicate allergic or parasitic conditions.
- PLT (platelet count) measures cells that help stop bleeding by forming blood clots.
- RETICs (reticulocytes) are immature red blood cells. High or low levels help classify anaemias.

## **SERUM CHEMISTRY PROFILE**

These common tests evaluate organ function, electrolyte status, hormone levels & more.

- ALB (albumin) is a serum protein that helps evaluate hydration, haemorrhage & intestinal, liver & kidney health.
- ALKP/ALP (Alkaline Phosphatase) elevations may indicate liver damage, Cushing's Disease & active bone growth/change. Certain drugs (eg anti-epileptics & corticosteroids) may also cause an increase.
- ALT (Alanine aminotransferase) is a sensitive indicator of active liver damage but doesn't indicate the cause.
- AMYL (amylase) elevations show pancreatitis or kidney disease.
- AST (aspartate aminotransferase) increases may indicate liver, heart or skeletal muscle damage.
- BUN (Blood Urea Nitrogen) reflects kidney function. An increased blood level is called azotaemia & can be caused by kidney, liver & heart disease, urethral obstruction, shock & dehydration.
- Ca (calcium) deviations can indicate a variety of diseases. Tumours, hyperparathyroidism, kidney disease & low albumin are just a few of the conditions that alter serum calcium.
- Cl (chloride) is an electrolyte often lost with vomiting or Addison's disease. Elevation often indicates dehydration.
- Cortisol is a hormone that is measured in tests for Cushing's Disease & Addison's Disease.
- CREA (Creatinine) reflects kidney function. This test helps distinguish between kidney & non-kidney causes of elevated BUN.
- GGT (gamma-glutamyl transpeptidase) is an enzyme that, when elevated, indicates liver disease or corticosteroid excess.
- GLOB (globulin) is a blood protein that often increases with chronic inflammation & certain disease states.
- GLU (glucose) is blood sugar. Elevated levels may indicate Diabetes Mellitus or stress. Low levels can cause collapse, seizures or coma.
- K (potassium) is an electrolyte lost with vomiting, diarrhoea or excessive urination. Increased levels may indicate kidney failure, Addison's Disease, dehydration & urethral obstruction. High levels can lead to cardiac arrest & death.
- LIP (lipase) is an enzyme that may indicate pancreatitis when elevated.
- Na (sodium) is an electrolyte lost with vomiting, diarrhoea & kidney or Addison's Disease. This test also helps indicate hydration status.
- PHOS (phosphorus) elevations are often associated with kidney disease, hyperthyroidism & bleeding disorders.

- TBIL (total Bilirubin) elevations may indicate liver or haemolytic disease (breakdown of RBC). This test helps identify bile duct problems & certain types of anaemia.
- T.P. (Total Protein) indicated hydration status & provides information about the liver, kidney & infectious diseases.
- T4 (thyroxine) is a thyroid hormone. Decreased levels often signal Hypothyroidism in dogs while high levels indicated Hyperthyroidism in cats. The level can also be decreased by other, concurrent illnesses.

Please do not hesitate to ask any questions you may have about your pet`s blood work – we can be contacted on **5786965**.