

# Understanding your pet's blood work

Blood tests help us determine causes of illness accurately, safely and quickly and let us monitor the progress of medical treatments. We want you to understand our recommendations and be a partner in your pet's care.

## Complete blood count (CBC)

A CBC (the most common blood test) gives information on hydration status, anemia, infection, the blood's clotting ability and the immune system's ability to respond. This test is essential for pets with fevers, vomiting, diarrhea, weakness, pale gums or loss of appetite.

**HCT** *hematocrit* measures the percentage of red blood cells to detect anemia and dehydration.

**Hb & MCHC** *hemoglobin and mean corpuscular hemoglobin concentration* hemoglobin is the oxygen-carrying pigment of red blood cells (corpuscles).

**WBC** *white blood cell count* measures the body's immune cells. Increases or decreases may indicate certain disease or infections.

**GRANS & 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 may indicate regenerative anemia.

## Blood serum chemistries

These common tests evaluate organ function, electrolyte status, hormone levels and more. They are important in evaluating the health of older pets, pets with vomiting and diarrhea or toxin exposure, pets receiving long-term medications and pre-anesthetic patients.

**ALB** *albumin* is a serum protein that helps evaluate hydration, hemorrhage as well as intestinal, liver and kidney disease.

**ALKP** *alkaline phosphatase* elevations may indicate liver damage, Cushing's disease 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 may show pancreatitis or kidney disease.

**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 may be caused by kidney, liver as well as heart disease, urethral obstruction, shock and dehydration.

**Ca** *calcium* deviations may indicate a variety of diseases. Tumors, hyperparathyroidism, kidney disease 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 serum calcium.

**Cl** *chloride* is an electrolyte often lost with vomiting and Addison's disease. Elevations may often indicate dehydration.

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

**CPK** *creatinine kinase* elevations may be seen with inflammation, infection or trauma within the muscle. In cats, anorexia may cause high CPK values.

**CREA** *creatinine* reveals kidney function. This test helps distinguish between kidney and nonkidney causes of elevated BUN.

**GGT** *gamma glutamyl transferase* is an enzyme that may indicate liver disease or corticosteroid excess.

**GLOB** *globulin* is a blood protein that may often increase 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 may lead to cardiac arrest.

**LIP** *lipase* is an enzyme that may indicate pancreatitis.

**Mg** *magnesium* levels may be low due to prolonged anorexia, vomiting, diarrhea, renal failure, diabetic ketoacidosis, sepsis or blood transfusion.

**Na** *sodium* is an electrolyte lost with vomiting, diarrhea and kidney or Addison's diseases. This test helps indicate hydration status.

**PHOS** *phosphorus* elevations may be 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 information about the liver, kidneys and infectious diseases.

**Triglyceride** measures a type of fat in the blood. High levels puts pets at risk for pancreatitis and may be a sign of hypothyroidism, adrenal gland disease and diabetes.

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

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