

# BRIDGEWATER VETERINARY HOSPITAL

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## DIAGNOSTIC TESTING

### Blood Chemistry

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

*Alanine Aminotransferase (ALT)*: An enzyme that becomes elevated with liver disease or injury.

*Alkaline Phosphatase (ALKP)*: An enzyme produced by the cells lining the gall bladder and its associated ducts. Elevated levels can indicate liver disease or Cushing's syndrome.

*Amylase (AMYL)*: An enzyme produced by the pancreas. The pancreas secretes amylase to aid in digestion. Elevated blood levels can indicate pancreatic and/or kidney disease.

*Blood Urea Nitrogen (BUN)*: BUN is produced by the liver and excreted by the kidneys. Abnormal levels can indicate dehydration, and liver or kidney abnormalities.

*Calcium (CA<sup>2+</sup>)*: Increased levels can be seen with diseases of the parathyroid gland and kidneys or as an indicator of certain types of tumors.

*Cholesterol (CHOL)*: Elevated levels of cholesterol are seen in a variety of disorders including genetic disease, liver and kidney disease and hypothyroidism.

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

*Blood Glucose (GLU)*: High levels can indicate diabetes. In cats, high levels can indicate stress, which can merely be a result of the trip to the veterinary hospital. Low levels can indicate liver disease, infection, or certain tumors.

*Phosphorus (PHOS)*: Elevated phosphorus can be an indicator of kidney disease.

*Total Bilirubin (TBIL)*: Bilirubin is a breakdown product of hemoglobin and is a component of bile. Bilirubin is secreted by the liver into the intestinal tract. Blood bilirubin levels are useful in diagnosing anemia and problems in the bile ducts.

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

### Electrolytes

*Sodium, Potassium, Chloride (NA<sup>+</sup>, K<sup>+</sup>, Cl<sup>-</sup>)*: The balance of these electrolytes is vital to your pet's health. Abnormal levels can be life threatening. Electrolyte tests are important in evaluating vomiting, diarrhea, dehydration and cardiac (heart) symptoms.

### Hematology

*Hematocrit (HCT)*: Provides information on the amount of red blood cells (RBC's) present in the blood. This test is used to diagnose anemia.

*Complete Blood Count (CBC)*: A more complete panel of tests, a CBC provides detailed information on RBC's WBCs (white blood cells), and platelets. These tests can indicate anemia, infection, leukemia, stress, the presence of inflammation, or an inability to fight infection. Platelets are involved in blood clotting and if low can indicate a bleeding problem.

*Morphologic Inspection*: Looking at the cells through a microscope can provide information on the type of anemia or inflammation, or other abnormalities such as leukemia.

### Urinalysis

The urine contains by-products from many organs such as the kidneys, liver and pancreas. Abnormal levels of these by-products can indicate disease including diabetes, liver and kidney disease.

### Electrocardiogram

Detects heart rate and electrical rhythm. Certain abnormal rhythms and heart rates can be deleterious to animals undergoing anesthesia.

### Serum Thyroid Hormone

This is a measurement of the level of thyroid hormone circulating in the blood. Hyperthyroidism occurs primarily in cats and typically in the age category of adult to geriatric. Serious complications can occur if an unrecognized hyperthyroid pet is placed under anesthesia.

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