

# White Bear Animal Hospital Senior Wellness Panel Diagnostics

## Complete Blood Chemistry Profile

### 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 (ALP)

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 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.

### Blood Urea Nitrogen (BUN)

BUN is produced by the liver and excreted by the kidneys. Abnormal levels can indicate dehydration, liver and kidney disease and hypothyroidism.

### 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.

### Lipase (LIPA)

An enzyme produced by the pancreas. The pancreas secretes lipase to aid in digestion. Elevated blood levels can indicate pancreatic.

### Phosphorous (PHOS)

Elevated levels of phosphorous 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 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 (Na<sup>+</sup>), Potassium (K<sup>+</sup>), Chloride (Cl<sup>-</sup>)

The balance of these electrolytes is vital to your pet's health. Abnormal levels can be life threatening. Electrolyte test are important in evaluating vomiting, diarrhea, dehydration and cardiac (heart) symptoms.

## Hematology

A Complete Blood Cell Count (CBC) provides detailed information on red blood cells (RBCs), white blood cells (WBCs) and platelets. Low RBCs indicates anemia. High RBCs may be seen in dehydration. The total WBC and differential (individual cell counts) can indicate infection, leukemia, stress, inflammation or an inability to fight infection. Low platelets can indicate a bleeding problem. We might advise that surgery be delayed if anemia, infection or especially a low platelet count is present because these conditions could cause serious surgical complications.

## Total Serum T4

This is a measurement of the level of thyroid hormone circulating in the blood and is helpful in identifying thyroid disease. Thyroid disease occurs in both dogs and cats and can have a serious impact on health if left untreated.

## 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 as well as urinary tract infections and kidney and/or bladder stones.

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## Additional Diagnostics

### **Radiography**

Radiographs use x-rays to visualize bones and internal organs. Radiographs are useful in identifying internal tumors, bone lesions, kidney and/or bladder stones, heart and lung disease, constipation and gastrointestinal foreign bodies and obstructions.

### **Ultrasonography**

Ultrasound utilizes sound waves to visualize internal organs. Since it images differently from radiography the two imaging methods are complimentary.

### **Echocardiography**

Echocardiography is ultrasonography specifically focusing on the heart. It allows visualization of the internal structure of the heart and measurement of heart function.

### **Electrocardiography**

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

### **Blood Pressure Measurement**

Many diseases including those that arise from the heart, lungs, kidneys and liver can affect a pet's blood pressure. Accurately measuring a pet's blood pressure is essential in efficiently managing their health.

### **Specialized Tests**

Depending on your pet's specific conditions, there are many other diagnostic tests that can be performed to better define their overall health. For example:

- ProBNP tests can be used to evaluate pets with heart murmurs to determine whether or not there has been significant damage to the heart muscle.
- Pancreatic Lipase tests can help evaluate for pancreatitis, a potentially serious inflammation of the pancreas.
- Urine Culture and Sensitivity is used to determine whether or not your pet has a bacterial urinary tract infection, and if so, which antibiotics will most effectively treat the infection.