



## Explanation of Your Pet's Blood work

### Baker Animal Clinic

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When your medical provider orders blood work for health screening, he or she will be looking at certain values to give a picture of your overall health. The same applies to your pet. When your veterinarian orders blood work, they are screening for potential health problems. This hand out gives a brief explanation of some of the more commonly performed blood tests

### Blood Chemistries

These tests are routinely performed to assist in evaluating system organ function, electrolyte status, hormone levels and more. These values are important in evaluating your pet's health in all life stages; during times of illness, monitoring organ function when on long term medications and prior to administration of anesthesia.

|                 |                             |  |
|-----------------|-----------------------------|--|
| <b>ALB</b>      | Albumin                     | Serum protein that helps evaluate hydration, enteritis, hemorrhage, liver and kidneys.   |
| <b>ALKP</b>     | Alkaline Phosphatase        | Protein that is related to liver damage, Cushing's disease, steroids and active bone growth in young pets. This value is significant in cats.  |
| <b>ALT</b>      | Alanine Aminotransferase    | Indicator of active liver disease. Does not indicate cause or reversibility.   |
| <b>AMYL</b>     | Amylase                     | Associated with pancreatitis or kidney disease, especially if elevated.  |
| <b>AST</b>      | Aspartate Transferase       | Increased levels can indicate liver or skeletal muscle necrosis/damage.  |
| <b>BUN</b>      | Blood Urea Nitrogen         | Kidney function property. Increased levels of nitrogenous waste products (protein) are called azotemia. Kidney, liver and heart disease, urethral obstruction, shock and dehydration can cause abnormalities.                    |
| <b>Ca</b>       | Calcium                     | Can be an indicator of tumors, hyperparathyroidism, kidney disease and low albumin. Abnormalities can be a sign of a wide variety of conditions.   |
| <b>CHOL</b>     | Cholesterol                 | Used to help diagnose hyperthyroidism, liver disease, Cushing's disease, diabetes mellitus, etc.   |
| <b>Cl</b>       | Chloride                    | An electrolyte that can be lost with vomiting and Addison's disease. Increased values often indicate dehydration.  |
| <b>Cortisol</b> |                             | This is a hormone used to test for Cushing's disease in a low-dose dexamethasone suppression test.   |
| <b>CREA</b>     | Creatinine                  | Kidney function property. Helps distinguish between kidney and non-kidney causes of elevated BUN   |
| <b>GGT</b>      | Gamma Glut amyl Transferase | Liver enzyme which indicates disease or cortisol excess.   |
| <b>GLOB</b>     | Globulin                    | Blood protein that often is increased with chronic inflammation and certain disease states.  |
| <b>GLU</b>      | Glucose                     | Known as "blood sugar". Greatly elevated levels may indicate diabetes mellitus. Low levels can cause collapse or coma.   |
| <b>K</b>        | Potassium                   | An electrolyte that is lost with diarrhea, vomiting or excessive urination. Increased levels are associated with kidney failure, Addison's disease, dehydration and urethral obstruction. Elevations can lead to cardiac arrest. |
| <b>LIP</b>      | Lipase                      | A pancreatic enzyme that may indicate pancreatitis or abnormal blood fats.   |
| <b>Na</b>       | Sodium                      | An electrolyte lost with diarrhea, vomiting, kidney disease and Addison's disease. Can also assist in indicating hydration status.   |
| <b>PHOS</b>     | Phosphorous                 | Elevated levels are associated with kidney disease, hyperthyroidism  |

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|             |                   | and bleeding disorders.  |
| <b>TBIL</b> | Total Bilirubin   | Elevated levels may indicate liver or hemolytic disease. Aids in diagnosing anemia and bile duct disorder.   |
| <b>TP</b>   | Total Protein     | Indicates hydration status and can be additional information in liver, kidney, infectious diseases and more.   |
| <b>T4</b>   | Thyroxine (total) | Thyroid hormone. Decreased levels are associated with primary hypothyroidism (dogs) while elevations are associated with hypothyroidism (cats). Abnormal findings are confirmed with further thyroid function tests performed by an outside lab. |

### Complete Blood Count (CBC)

The complete blood count is a common test performed on both pets and people. It can give invaluable information about hydration status, anemia, and the body's ability to form blood clots, infection and the ability to mount an immune response. A CBC is essential in pets with fever, vomiting and/or diarrhea, weakness or pale gums, not eating, etc. The CBC is useful in pre-surgical evaluation to detect bleeding disorders or other abnormalities.

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|-------------------|---|---|
| <b>HCT</b>        | Hematocrit  | Measures the amount of red blood cells. Detects anemia and dehydration.                                 |
| <b>HGB,MCHC</b>   | Hemoglobin, Mean Corpuscular Hemoglobin Concentrate | Oxygen – carrying pigment of red blood cells.   |
| <b>WBC</b>        | White Blood Cells                                   | Basic immune cells of the body. Increase or decrease can indicate certain diseases or infections.       |
| <b>GRANS, L/M</b> | Granulocytes, Lymphocytes, Monocytes                | These are specific types of white blood cells.  |
| <b>EOS</b>        | Eosinophils   | White blood cell that can indicate allergic or parasitic conditions.                                    |
| <b>PLT</b>        | Platelets   | Cells that allow the body to form blood clots and stop bleeding.  |
| <b>RETICS</b>     | Reticulocytes                                       | Immature red blood cells. Can indicate if anemia is regenerative or not.                                |
| <b>FIBR</b>       | Fibrinogen  | Important clotting factor. Increased levels may indicate pregnancy in dogs who are 30-40 days pregnant. |

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