Cross Creek Animal Hospital
Laboratory Fact Sheet

	TEST	PROBLEM	FACTS
BLOOD COUNT	• WBC (Total white blood cell count)	• Inflammation or Infection • Leukemia	The cell counts tell how many of each type of white blood cells are present and whether or not they appear normal. White blood cells help fight infection. White blood cell numbers can increase in response to inflammation and infection. In leukemia, which is a cancer of the blood stream, either the numbers of white blood cells are increased or their appearance is abnormal, or both. White blood cell numbers can decrease with severe infection, bone marrow disease, or (in cats) FeLV or FIV infection.
	• Neutrophils • Bands • Lymphocytes • Monocytes • Eosinophils • Basophils		
	• Platelets	• Poor Blood Clotting	Platelets help with blood clotting. It is important to make sure that these numbers remain normal or close to normal.
	• RBC (Red Blood Cell Count)	• Anemia	This test evaluates the size, shape and overall red blood cell count
	• PCV (Packed Cell Volume) • Hemoglobin		Tests for the presence of anemia (low blood cell levels)
	• MCV • RBC Morphology • MCH • MCHC		These test help tell which type of anemia is present. A reticulocyte count (to look for young red cells) may also be needed.
BLOOD CHEMISTRIES	• ALT • AST • ALP • GGT	• Liver Disease • Inflammation of the Pancreas	Liver enzymes. These tests help indicate that there may be a problem with the liver. Liver enzymes levels may also be abnormal with inflammation of the pancreas or intestines.
	• Total Bilirubin	• Jaundice	A test for jaundice. Increased levels usually indicate a liver disorder (with or without concurrent disease of the pancreas) or damaged red blood cells.
	• Total Protein • Albumin • A/G Ratio • Globulin	• Liver Disease • Kidney Disease • Intestinal Disease	Protein levels. Albumin may be decreased with disorders of the intestine, kidneys, liver or decreased nutrient intake. The globulin level may also decrease due to intestinal disease and may increase in response to inflammation or cancer.
	• Creatinine • Phosphorus • BUN	• Kidney Malfunction	Tests of kidney function (should be run in conjunction with urinalysis for the most accurate assessment of kidney function).
	• Calcium • Phosphorus	• Parathyroid Disorder, Cancer	Elevated or deceased calcium levels can be a sign of a wide variety of diseases. A common cause of increased calcium in dogs is lymphosarcoma (a type of cancer).
	• Glucose (Blood Sugar)	• Diabetes • Severe Infection (Sepsis)	A glucose test will detect abnormally high blood sugar levels, which may indicate diabetes. Low levels may occur with liver disease, severe infection, certain types of cancer and Addison's disease.
	• Amylase • Lipase	• Inflammation of the Pancreas	Tests for inflammation of the pancreas (dogs). Levels can also be increased due to kidney disease or enteritis.
	• Sodium • Potassium • NA/K Ratio • Chloride	• Adrenal Disease • Decreased Kidney Function	Important body electrolytes. It is especially important that potassium levels be monitored in sick animals and in animals with decreased kidney function or adrenal disease.
	• CPK	• Muscle Injury	Muscle enzyme. Increased levels indicate muscle injury or inflammation. In cats, weight loss can also cause levels to increase.
	• T4	• Hyperthyroidism	Thyroid function screening test. If the result is abnormal, more detailed thyroid testing may be required. Abnormally high values are more common in cats (hyperthyroidism). Abnormally low values are more common in dogs (hypothyroidism).
URINALYSIS	• Complete Urinalysis (Appearance, Color, Specific Gravity, Occult Blood) • WBC/HPF (White Blood Cells) • pH • Protein • Glucose • Ketones • Bilirubin • Casts/LPF • Crystals/HPF • Epith Cells/HPF • Bacteria	• Kidney Disease • Urinary / Bladder Disorders	Urinalysis is a very important means of evaluating kidney function, especially when done in conjunction with blood tests. Urinalysis is also a key test for determining if there is a urinary tract infection or if there is inflammation in the urinary bladder urinalysis also helps to confirm, along with blood tests, whether or not an animal has diabetes (with diabetes, either sugar or both sugar and ketones are present in the urine).

Cross Creek Animal Hospital
2147 Skibo Road
Fayetteville, NC 28314
910-868-1164
www.crosscreekanimalhospital.com

Adapted From

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