



FRANKTOWN ANIMAL CLINIC

Compassionate care for pets and their people.

DOG BLOOD WORK:

Understanding Your Dog's Health

Blood work is an essential tool in evaluating your dog's overall health. Routine blood work allows us to detect underlying diseases early, establish a baseline for your pet's health, and guide treatment plans. We recommend blood work before surgeries, during annual wellness exams (especially for senior pets), and when evaluating unexplained symptoms.



Complete Blood Count (CBC)

Evaluates organ function and metabolic health.

Red Blood Cells (RBCs) (Normal: 5.0-10.0 million/ μ L): Tests for anemia, dehydration, or blood loss.

- **If high:** We assess for dehydration, heart disease, or bone marrow disorders.
- **If low:** We investigate anemia causes such as kidney disease, chronic illness, or bone marrow suppression.

Hemoglobin (HGB) (Normal: 12-18 g/dL): Measures the oxygen-carrying capacity of the blood.

- **If high:** May indicate dehydration or polycythemia (an excess of red blood cells).
- **If low:** Can indicate anemia or chronic disease.

Hematocrit (HCT/PCV) (Normal: 37-55%): Evaluates the proportion of red blood cells in the blood.

- **If high:** May suggest dehydration or polycythemia (an excess of red blood cells).
- **If low:** Could indicate anemia or blood loss.

White Blood Cells (WBCs) (Normal: 5,000-16,000/ μ L): Tests for infection, inflammation, or immune response.

- **If high:** Suggests infection, inflammation, or stress.
- **If low:** May indicate bone marrow suppression or viral infections.

Platelets (PLT) (Normal: 175,000-500,000/ μ L): Tests for clotting ability and potential bleeding disorders.

- **If high:** May indicate inflammation, infection, or certain cancers.
- **If low:** Could suggest clotting disorders, immune-mediated disease, or blood loss.

Chemistry Panel

Evaluates organ function and metabolic health.

Liver Function Tests: These tests assess the liver's ability to process waste, store nutrients, and aid digestion.

ALT (Alanine Aminotransferase) (Normal: 10–118 U/L):
Assesses liver cell health.

- **If high:** Indicates liver disease, toxin exposure, or infection.

ALKP (Alkaline Phosphatase) (Normal: 5–131 U/L):
Evaluates liver function and bone health.

- **If high:** May be linked to liver disease, Cushing's disease, or bone disorders.

Bilirubin (TBIL) (Normal: 0.1–0.5 mg/dL):
Measures bile function and liver health.

- **If high:** Could indicate liver disease, bile duct obstruction, or hemolysis (destruction of red blood cells).

Kidney Function Tests: These tests evaluate how well the kidneys are filtering waste from the blood.

Blood Urea Nitrogen (BUN) (Normal: 7–27 mg/dL):
Evaluates kidney function and hydration status.

- **If high:** Could suggest kidney disease, dehydration, or heart disease.
- **If low:** May indicate liver disease or overhydration.

Creatinine (CREA) (Normal: 0.5–1.6 mg/dL):
Assesses kidney filtration function.

- **If high:** Often indicates kidney disease or dehydration.

Pancreatic Function: These tests evaluate how well the pancreas is able to support regulation of blood sugar and production of enzymes needed for digestion.

Glucose (GLU) (Normal: 70–143 mg/dL):
Measures blood sugar levels.

- **If high:** May indicate diabetes, stress, or pancreatitis.
- **If low:** Could be caused by insulinoma, liver disease, or Addison's disease.

Amylase (AMY) (Normal: 290–1125 U/L) :
Aids in assessing pancreas health.

- **If high:** May indicate pancreatitis or gastrointestinal disorders.

Lipase (LIP) (Normal: 77–695 U/L):
Aids in assessing pancreas health.

- **If high:** May indicate pancreatitis or gastrointestinal disorders.

Protein Levels: Proteins are vital for immune function, blood clotting, and maintaining fluid balance in the body.

Total Protein (TP) (Normal: 5.4–7.8 g/dL):
Measures hydration and immune function.

- **If high:** Suggests dehydration or chronic inflammation.
- **If low:** May indicate liver disease, kidney disease, or malnutrition.

Albumin (ALB) (Normal: 2.7–4.4 g/dL):

A crucial protein for liver and kidney health.

- **If high:** Often linked to dehydration.
- **If low:** Can indicate liver disease, kidney disease, or GI disorders.

Globulin (GLOB) (Normal: 2.5–4.5 g/dL):

Part of the immune system.

- **If high:** May indicate chronic inflammation or infection.
- **If low:** Can be due to immune suppression or liver disease.

Electrolytes

Essential minerals that help regulate bodily functions such as nerve function, hydration, and muscle contractions.

Sodium (Na) (Normal: 139–154 mmol/L):

Important for hydration and nerve function.

- **If abnormal:** Can indicate dehydration, kidney disease, or hormonal imbalances.

Potassium (K) (Normal: 3.5–5.8 mmol/L):

Essential for muscle and heart function.

- **If high:** May suggest kidney disease, Addison's disease, or tissue injury.
- **If low:** Can result from vomiting, diarrhea, or Cushing's disease.

Chloride (Cl) (Normal: 102–120 mmol/L):

Helps maintain acid-base balance.

- **If abnormal:** Often accompanies sodium imbalances.

What happens if your pet's blood work is abnormal?

If we find abnormalities, we will discuss the results with you and recommend further testing if needed. Depending on the findings, treatment may include dietary changes, medications, hydration therapy, or monitoring trends over time.

Routine blood work is an essential part of keeping your dog healthy. If you have questions about your pup's blood work or recommended follow-up, please contact us!

Your dog's health is our priority!



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7658 Burning Tree Drive, Franktown, CO 80116 • 303-688-4690 • FranktownAnimalClinic.com