



BLOOD WORK AND YOUR PET

Pets can't tell you how they're feeling. That's why you play a key role in helping your pet stay healthy. First, you may notice something is wrong by how they look or act. And second, having regular preventive health screens performed, including a physical exam and blood work, will help ensure your pet lives a long, healthy, and happy life.

WHEN IS BLOOD WORK NECESSARY?

- **Preventive care screening.** Preventive care testing is part of your pet's annual exam because the signs that your pet is sick are not always obvious. Preventive care screening not only uncovers disease before it's too late, it can also help you avoid significant medical expenses.
- **Medication monitoring.** Medications can have side effects. Periodic blood work while your pet is being treated allows your vet to make changes if necessary, like adjusting the dosage if appropriate.
- **Pre-anesthetic testing.** Blood work should be done within 30 days of your pet's surgery, dentistry, or other procedures that require anesthesia. If there are any abnormal findings, your veterinarian can, in most cases, make adjustments to keep your pet safe.
- **Sick and emergency situations.** Blood work is often the first step your vet will take when you bring your pet to a clinic when they are sick or if it's an emergency. It provides a valuable picture of your pet's health and helps the veterinary staff make immediate decisions, so they can quickly help your pet.

WHAT TESTS WILL MY VETERINARIAN RUN?

Routinely performed blood work tests include:

- A complete blood count (CBC) tells you if your pet has an infection, if inflammation is present, or if your pet is anemic.
- A complete blood chemistry panel including electrolytes provides information about your pet's liver, kidneys, and pancreas, as well as other functions of the body, such as blood sugar and hydration.
- A urinalysis identifies an infection or inflammation in the urinary tract.
- A thyroid function test can tell if your pet's thyroid gland is functioning properly. Thyroid disease is very common in older cats and dogs.

Your veterinarian may recommend or require additional tests to investigate a specific disease or drug monitoring.

WHEN CAN I EXPECT RESULTS?

Many of these tests can be performed right here in our clinic, which means fast results and the opportunity to discuss them with your veterinarian immediately. Normal results can rule out certain diseases, and if the results are abnormal, your veterinarian can make fast decisions about next steps, including additional tests. Treatment for your pet can begin right away, saving you time and giving you the answers you need.



UNDERSTANDING YOUR PET'S TEST RESULTS

Blood testing can frequently detect illness in your pet before we see any outward signs of disease. Testing leads to getting your pet the treatment they need immediately. Treating your pet early can lead to a better outcome and may even lower treatment costs.

COMPLETE BLOOD COUNT (CBC)

Red Blood Cells: Red blood cells (RBCs) typically make up almost half of the blood's volume. RBCs help to transport oxygen as it travels through the rest of the body.



CBC is used to screen for:

- Anemia (low red blood cells)
- Inflammation
- Infection
- Stress
- Leukemia
- Bleeding problem
- Inability to fight infection
- Hydration status

Reticulocytes: These are immature RBCs increased during times of increased red cell production, such as blood loss or immune-mediated anemia.

White blood cells: White blood cells are primarily responsible for fighting infections. There are five different types of white blood cells and each one performs specific functions to keep the body healthy.

Platelets: Platelets play a critical role in preventing bleeding.

CHEMISTRY

Kidneys: Kidneys are responsible for filtering metabolic waste products, excess sodium, and water from the blood stream, which are then transferred to the bladder for excretion.

Blood and urine tests can indicate:

- Early renal disease
- Renal failure
- Infection
- Stones
- Cancer
- Abnormalities resulting from long-term medications



Liver: The liver processes blood by removing both bacteria and toxins as well as further breaking down many of the complex nutrients absorbed during the digestion of food into much smaller components for use by the rest of the body.

Biochemistry tests can indicate:

- Liver disease
- Cushing's syndrome
- Certain cancers
- Dehydration
- Obstruction of the bile ducts
- Abnormalities resulting from long-term medications

Pancreas: The pancreas is a small organ located near the small intestines and is responsible for producing several digestive enzymes and hormones that help regulate metabolism.

Biochemistry tests can indicate:

- Pancreatitis (inflammation of the pancreas)
- Diabetes mellitus
- Abnormalities resulting from long-term medications
- Cancer

Glucose: Glucose is the basic nutrient for the body. It is highly regulated in the blood stream. Glucose changes may be seen with a variety of metabolic diseases, such as diabetes and various organ system abnormalities.

Electrolytes: Electrolytes (Na, K, Cl, tCO₂, Anion Gap) are critical to body function and must be maintained in very narrow limits.

URINE

Urinalysis: A urinalysis is essential for a comprehensive evaluation of kidney function. A urinalysis includes physical, chemical, and microscopic evaluation of urine. This evaluation provides additional information about the kidney and liver, as well as the general well-being of your pet.



THYROID

Thyroid: Thyroxine (T₄), a hormone produced by the thyroid gland, is essential for growth and metabolism. As your pet ages, thyroid function can become abnormal and cause signs of illness.

Endocrine tests can indicate:

- Hypothyroidism
- Hyperthyroidism