



When Are Lab Tests Necessary?

If you are a pet owner, there have probably been times when your veterinarian has recommended a laboratory test for your dog or cat. Lab tests are performed for a variety of reasons. Most notably, they are needed to diagnose your pet's condition, rule out possible diseases that may be ailing your pet, screen for underlying conditions, judge whether your pet is healthy for an anesthetic procedure, and monitor your pet's organ function when they are taking certain medications. At Ely Veterinary Care (EVC), we can perform several lab tests in-house, as well as send out biologic samples for specialized testing with a reference laboratory. In certain situations, a professional consultation with a veterinary specialist may be needed to properly interpret your pet's laboratory results. Please see below examples of laboratory work we can perform at EVC and reasons why we may want to perform these tests:

Blood Work:

- A full blood test is composed of a complete blood count (CBC), chemistry (chem) panel, and electrolyte measurement. The CBC counts the number of red and white blood cells in your pet's blood stream and can be a good indicator of a possible infection. Chemistries help to evaluate your pet's organ function and measures your pet's blood proteins. Electrolyte measurements help determine your pet's hydration status and can allude to certain disease processes.
- Blood work is usually a good starting point when sick pets are brought into the clinic or during emergency situations. Blood work gives us an overview of your pet's health.
- Blood work is recommended prior to any anesthetic procedure to determine if your pet is healthy enough to undergo the operation.
- Annual blood work is recommended for all pets, especially pets over 6 years of age, to screen for possible underlying disorders before your pet's health worsens.
- If your pet is on chronic medications such as anticonvulsants, anti-inflammatories, or thyroid meds, blood work will be used to monitor your pet's liver and kidney values and hormone levels, which can also help determine if your pet is at the correct dose of medication.
- We offer a variety of "Rapid Tests," which screen for heartworm disease, feline leukemia and immunodeficiency virus, giardia, tick borne diseases, pancreatitis, etc.

Urinalysis:

- A urinalysis evaluates your pet's urine for its concentration, color, clarity, glucose level, protein amount, ketone presence, possible bacteria and crystals, etc. A complete



urinalysis is composed of a urine specific gravity reading (USG), a dipstick evaluation, and a sediment observation.

- Directly evaluating your pet's urine helps to further determine your pet's kidney health, and when paired with a complete blood panel, can be used to diagnose kidney disease, diabetes, urinary tract infections, etc.

Radiographs (X-Rays):

- Radiographs help to visualize your pet's bones and inner organs. Bones show-up as bright white structures on x-rays. Organs, fluid, and tissues are seen as varying shades of gray. Gas is visualized as black areas on the images.
- If your pet is limping or favoring a certain limb, radiographs can be helpful to diagnose skeletal conditions like fractures, panosteitis (bone inflammation), bone tumors, etc.
- Pregnancy cases can be assisted with the use of radiographs. If your pet is at least 45 days into her pregnancy, we can get a rough count of the number of feti in her uterus.
- If your pet is having trouble breathing or coughing, we can take an image of your pet's chest to evaluate his/her heart and lungs to rule out congestive heart failure, bronchitis, a collapsing trachea, cancerous nodules, asthma, etc.
- Vomiting and diarrhea cases can often benefit from an abdominal x-ray set or a barium series to check for foreign bodies, cancerous masses, organ enlargement, etc.
- Bladder stones can sometimes be visualized using radiographs.

Ultrasound:

- When more tissue detail is necessary than what can be provided by a radiograph, an ultrasound can be very useful.
- An ultrasound can help search for and identify possible masses within the abdomen, especially when they are involved with organs.
- During emergency situations, an ultrasound can help locate potential free fluid within the abdomen or chest. This free fluid may indicate pleural effusion (fluid in the chest), a bladder rupture, blood, etc.
- When needing a urine sample from your pet, an ultrasound can help guide the extraction of urine from the bladder.
- Fetal heart rates can be visualized using an ultrasound, which can help indicate whether the fetus is in distress or normal and viable.

Fecal Floats:



- A fecal float can be used to screen your pet for possible gastrointestinal parasites.
- This float method can also be helpful for monitoring the effectiveness of a deworming program.

Cytologies:

- An ear cytology can be performed to rule out a possible ear infection involving bacteria and yeast. Using an alternative method, ear mites can also be diagnosed.
- A fine needle aspirate (FNA) and cytology is useful for categorizing masses and screening for potential cancer cells. An FNA helps to determine whether a mass is questionable or not (if the mass could possibly be cancerous).
- Tape cytologies and impression smears are also beneficial when evaluating skin issues such as infections.
- Skin scrapes are often used to check for mites.

Cultures:

- Skin cultures can be helpful for diagnosing ringworm cases.
- Urine cultures are often indicated to identify the best antibiotic for a urinary tract infection.

If you have questions concerning lab work recommendations for your pet, please reach out to us!