LAB WORK AND YOUR PET



<u>Preoperative lab work</u> is always recommended as the gold standard of care to evaluate for any abnormalities which may affect how your pet responds under anesthesia and during surgery. Because lab work only looks at 1-snapshot in time, ideally <u>pre-op lab work</u> is performed as close to the day of surgery as possible for the most up-to-date data about your pet. Depending on the lab work chosen, information received can be very basic or more comprehensive. A more comprehensive panel is STRONGLY SUGGESTED for any older pet or pets who have known underlying medical conditions.

Lab work is a generic term for testing performed on bodily fluids, blood, tissues or excrement. Examples of the differing type of lab work are included below:

Bloodwork:

- A<u>Complete Biochemistry Panel</u>: can help evaluate the health & function of multiple organ [liver (hepatic), kidney (urinary), gastrointestinal - GI], or endocrine [adrenal & (para)thyroid] systems within the body as well as measuring electrolytes (sodium, potassium, & chloride), blood proteins (albumin/globulin), sugar (glucose) levels, and mineral balance (including calcium/phosphorus).
- <u>Complete blood count (CBC)</u>: The CBC evaluates characteristics of 3 major components of the blood: white blood cells (WBC), red blood cells (RBC), & platelets. The WBC can give clues whether your pet is experiencing infection or inflammation. The RBC helps check for conditions such as anemia. Platelet counts determine your pet's ability to clot it's blood which is important for surgical procedures or your pet's susceptibility to abnormal bruising or bleeding disorders.
- <u>Heartworm Test</u>: A blood test to determine the presence of <u>heartworm disease</u> by detecting the presence of an adult (female) heartworm. Heartworm disease is transmitted through the bite of a mosquito and can cause significant heart and lung disease which can be fatal if untreated.

4DX Test: includes testing for **heartworm** and **screening for antibodies** (indicating exposure at some point in time), **not active infection or sickness** of <u>3-Tick Borne Diseases</u> including <u>Ehrlichia</u>, <u>Anaplasma</u>, and <u>Lyme</u> disease.

If your pet has a **POSITIVE** for any of these test results, *it is very important to schedule a recheck exam & consultation with your veterinarian* to discuss next possible diagnostic steps or if a treatment plan is indicated.

Thyroid Function: <u>Hypothyroidism</u> (an **underactive** thyroid gland) is common in many middle-aged to older dogs and <u>Hyperthyroidism</u> (an **overactive** thyroid gland) is common in many older and geriatric cats.

<u>Feline Leukemia Virus</u> (FeLV) / <u>Feline Immunodeficiency Virus</u> (FIV): FeLV/FIV testing is recommended in kittens \geq 12 weeks old, again at 1-1.5 years, then annually for cats who go outdoors.

<u>Urinalysis</u>: a urine sample will provide information about urine concentration & pH as well as the presence of crystals, cellular debris, blood, or sugar. This information can help determine if your pet could have one of the following medical conditions (among others) including<u>urinary stones, kidney disease</u>, <u>diabetes</u>, or<u>urinary tract infection</u>.

Fecal Analysis: A fecal evaluation can help detect intestinal parasites such as <u>whipworm</u>, <u>roundworm</u>, <u>hookworm</u>, and <u>tapeworm</u>, <u>Giardia</u> and <u>Coccidia</u>. Some intestinal parasites such as roundworm and hookworm are zoonotic (transmissible from animal to human), especially in children or people with suppressed immune systems (immunosuppressed). Fecal testing can help us to ensure your pet is being treated properly for intestinal parasites and if any additional treatments are needed.

Even pets that appear happy and healthy can have hidden medical problems which may become serious or even life-threatening when left undetected. Blood, urine and fecal testing play an important role in identifying diseases earlier so we can intervene with other diagnostic or treatment recommendations if deemed appropriate. These diagnostics also help to prevent the spread of zoonotic diseases to people or other pets. Since our pets cannot tell us when they're ill, annual laboratory testing becomes very important.

For additional information about lab work in pets, please visit the following website articles:

- <u>Lab Work Screening</u> Recommendations & Test Explanation written by <u>Veterinary Partner</u> powered by VIN (the veterinary information network)
- Everything You Need to Know About Blood Work From a Veterinarian written by Petful
- <u>Understanding your Pet's Lab Tests</u> written by Washington State University College of Veterinary Medicine
- <u>Reading the Blood Chemistry Panel: An Art and Science</u> written by PetMD. This article includes normal testing ranges