

# Canine Pre-Anesthetic Blood Work Information Sheet

## Basic Pre-Anesthetic Blood Screen:

The basic pre-anesthetic blood screen will check to make sure your pet's kidneys and liver are working as they should for anesthesia. This testing also allows us to look at other parameters which help determine whether your animal will be able to filter the anesthetic out of their body properly. The complete blood count (CBC) looks into the red blood cells, white blood cells, and platelets, all very crucial for your pet's procedure and recovery. Red blood cells carry oxygen to your pet's tissue, white blood cells respond to infection or inflammation, and platelets are responsible for blood clotting. Finding any abnormalities in your pet's cells can help to diagnose anemia, infections, or potential blood clotting deficiencies. Based on the results, our veterinarian and staff can ensure that your pet has the proper anesthetic plan.

## CBC/Chem Blood Test:

The CBC/Chem test is a complete blood count and serum biochemistry analysis. The complete blood count (CBC) looks into the red blood cells, white blood cells, and platelets, all very crucial for your pet's procedure and recovery. Red blood cells carry oxygen to your pet's tissue, white blood cells respond to infection or inflammation, and platelets are responsible for blood clotting. Finding any abnormalities in your pet's cells can help to diagnose anemia, infections, or potential blood clotting deficiencies. The serum biochemistry (Chem) examines the number of chemicals in the blood associated with organ function. More specifically, the enzymes and proteins of the kidneys and liver are looked at since those two organs play a major role in how your pet will metabolize the anesthetic.

## Heartworm Test for Canines:

Heartworm disease is caused by a blood-borne parasite called *Dirofilaria immitis*., which is transmitted through a mosquito bite. The worms then live in an animal's heart and their blood vessels leading to the heart. Clogging of the blood vessels reduced the blood supply to many vital organs. This can lead to serious complications or potentially become fatal. Heartworms grow and mature for months, so they can be identified on a heartworm test once your dog is about 6 months old. Any dog over 6 months old is required to have a heartworm test done before obtaining heartworm preventatives.

#### **4Dx Blood Test for Canines:**

The 4Dx test will screen for heartworm disease, lyme disease, ehrlichiosis, and anaplasmosis.

This includes the heartworm testing as listed above.

Lyme disease is caused by a bite from a tick. Once infected, the disease presents itself like many other illnesses or may show no signs what-so-ever. Your dog will most likely become lethargic, have a lack of appetite, become lame, have swollen/painful joints, or run a fever. When left untreated, it can lead to problems with an animal's kidneys, which is less common, but can be fatal.

Ehrlichiosis is a tick-borne illness. The disease comes in three stages: acute, sub-clinical, and chronic or clinical. During the acute stage, the animal will experience symptoms such as a fever, weight loss, respiratory distress, or possibly neurologic symptoms. If the animal does not clear the infection on its own and the acute stage goes unnoticed, the animal will enter the sub-clinical phase. In this phase, there are no outward symptoms, so the dog would need to be tested for the disease for it to be known. Lastly, the animal would enter the clinical/chronic stage. This can cause neurological problems, anemia, lameness, and other life-threatening health related issues.

Anaplasmosis is another tick-borne illness. This disease can cause inappetence, fever, lethargy, and lameness. The infection can also cause cyclic thrombocytopenia, a disorder characterized by a fluctuation in platelet count. Platelets are the cells that help with the process of blood clotting, which can lead to bruising and nosebleeds when platelet levels are low.