

The Importance of Screening Labwork

By Brooke Crosier, DVM

Labwork is a valuable tool that helps your veterinarian assess your pet's health, and can help narrow down causes of certain symptoms. These include drinking and urinating more, chronic vomiting and diarrhea, and unintentional weight loss. In many cases labwork will give a diagnosis; and in virtually all cases it will help narrow down the list of possible causes of symptoms. Even if your pet isn't having any of these symptoms, however, it is important to keep in mind that pets are very good at masking illness, so often seem fine until they are quite sick. Also keep in mind that pets live a fraction of a human's lifespan, so what seems like a short interval between vet visits is actually a significant proportion of your pet's life, and their health status can change drastically in that time. Because of this, your veterinarian may recommend running screening labwork even if your pet seems to be perfectly healthy. This will allow your vet to catch any developing illness early, which often leads to a better prognosis once treatment is initiated. It also provides a baseline if their health changes down the road.

Here is a brief summary of what labwork includes:

Chemistry panel:

This tells your veterinarian about your pet's organ function. Included in a chemistry panel are markers of multiple types of organ function, including liver, kidney, and pancreas. A chemistry panel also measures blood sugar, blood protein levels, electrolytes, and minerals. Changes in these values help with the diagnosis of such diseases as diabetes, kidney/liver disease, and pancreatitis (inflammation of the pancreas).

Complete blood count (CBC):

This tells your veterinarian about the breakdown of types of cells in blood, including red blood cells, white blood cells, and platelets. A change in red blood cells can tell your vet if your pet is anemic or dehydrated. There are multiple types of white blood cells, and certain changes in certain proportions tells your vet a great deal of information about whether your pet has infection or inflammation, roughly how long it's been going on for, and in some cases, what type of stimulus caused this. Platelets are important for clotting blood, and a low level is a concern that warrants further workup and treatment. A high platelet count can be an incidental finding, or can be seen in certain diseases such as Cushing's disease, or as a result of bleeding as the body pumps more platelets out to help form clots.

Thyroid level:

Thyroid hormone is produced by the thyroid gland, and has many purposes, including regulating body temperature, metabolism, and fur/nail growth. An elevated thyroid level can indicate hyperthyroidism, a relatively common and very treatable condition seen in older cats. A low thyroid level can indicate chronic disease or primary hypothyroidism, another very treatable disease generally seen in older to middle-aged dogs.

Urinalysis:

Your pet's urine actually tells your vet a lot about his health! If it's concentrated it means he might be dehydrated but his kidneys are probably functioning well. Dilute urine can mean your pet is drinking too much water, and/or his kidneys are losing their ability to concentrate the urine. Protein in the urine can indicate inflammation in your pet's body, or loss through kidney cells. Blood, white blood cells, and bacteria can indicate a urinary tract infection, or UTI. Glucose (sugar) in your pet's urine can indicate stress, or diabetes at higher levels. Ketones in the urine can indicate your pet has unregulated diabetes, a condition called ketoacidosis.

In summary:

Labwork is a great non-invasive, relatively inexpensive tool to give your veterinarian a great deal of information about your pet's health. There is value in checking labwork even in a pet that seems healthy, since many diseases carry a better prognosis if caught and treated early. Sometimes mild changes will raise a red flag that your pet should be monitored more closely, potentially by checking certain labwork on more frequent, regular intervals. Even normal labwork is useful in that it provides a baseline if your pet's health changes down the road.