# **Sechelt Animal Hospital**

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## EARLY DISEASE DETECTION TESTING IN YOUR GERIATRIC DOG

## What is early disease detection testing?

Early disease detection testing is the term given to a group of tests that is performed specifically to detect signs of early disease in a pet that is apparently healthy.

# Why do early disease detection testing?

Pets cannot tell you how they are feeling, and as a result disease may be present before you are aware of it. If a disease or condition can be detected before a pet shows signs of illness, we can often take steps to manage or correct the problem before irreparable damage is done. Early disease detection testing is particularly important in the geriatric pet, since there is a greater chance that underlying disease may be present.



Early disease detection testing is usually done once yearly, and many pet owners combine early disease detection testing with their annual visit to the veterinarian for their dog's physical



examination, vaccination, or heartworm testing. Your veterinarian may recommend more frequent testing depending on your dog's age or specific health concerns. Monitoring your pet's health status on a regular basis makes it easier for the veterinarian to detect minor changes that signal the onset of disease.

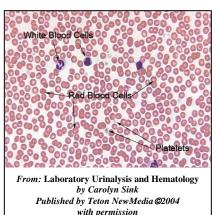
# What is involved in early disease detection testing?

There are four main categories of early disease detection testing for the geriatric dog: complete blood count (CBC), biochemistry profile, urinalysis, and thyroid hormone testing, glaucoma testing, and blood pressure reading. Within each category, the veterinarian will determine how extensive the testing should be. In younger dogs without noticeable health complaints,

relatively simple testing may be adequate. However, in the geriatric dog, more comprehensive testing is recommended.

## **Complete Blood Count** -

This simple blood test analyses the cellular components in the bloodstream. These include red blood cells, which



carry oxygen to the tissues, white blood cells, which fight infection and respond to inflammation, and platelets, which help the blood to clot. The CBC provides details about the number, size, and shape of the various cells types, and identifies the presence of any abnormal cells. (See handout *Complete Blood Count*).

### **Biochemistry Profile -**

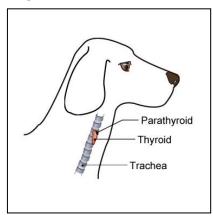
This is a series of tests performed on serum, which is a component of blood. These tests provide information about how well the various organs of the body are working, and help to detect the presence of some metabolic diseases. There are tests to assess the liver, kidneys, and pancreas, tests to identify the presence of diabetes, and so on. (See handout *Serum Biochemistry*). If minor abnormalities are found on the biochemistry profile, the veterinarian may simply request that you repeat the tests at a later time; depending on the abnormality, this may be in a few days, a few weeks,



or a few months. In some cases, a more extensive diagnostic workup may be recommended, including an expanded biochemistry profile, or special tests and/or imaging (x-rays, ultrasound).

#### **Urinalysis** -

Urinalysis involves an analysis of the chemical components in urine, as well as a microscopic examination of the cells and solid material present in urine (See handout "Urinalysis"). Urinalysis provides information about how well the kidneys are working, identifies the presence of inflammation or infection, and may detect the presence of underlying metabolic disease such as diabetes. Urinalysis is necessary for a complete assessment of the urinary system. It should be performed routinely as part of wellness testing, and is particularly important in the geriatric dog because of the increased rate of kidney disease in the older pet.



### Thyroid testing -

The thyroid gland is like a "thermostat", and it "sets" the metabolic rate of the whole body (See handout *Thyroid Testing*). The most common thyroid disease in the dog is called *hypothyroidism*, which occurs when the thyroid does not produce adequate amounts of thyroid hormone. The function of the thyroid gland should be tested if your dog exhibits unexplained weight gain, lack of energy, recurring skin or ear infections, hair loss on the body and tail, or has high cholesterol levels in the blood.

### Glaucoma Testing-

Glaucoma is defined as an increase in IOP. This is measured using an instrument called a *tonometer*. Glaucoma is caused by inadequate drainage of aqueous rather than the over production of fluid.

## **Blood Pressure Reading-**

Routine testing of your pet's blood pressure can help to diagnose early signs of disease processes like heart and kidney disease.

## **Heart Disease Screening-**

The risk for dogs to develop heart disease increases dramatically with age. Although there is no cure for heart disease, early detection can positively impact your dog's quality of life. A simple blood test is now available that can measure the presence of certain cardiac markers that indicate heart disease.

## **Summary**

Early disease detection testing is a simple and effective way of monitoring your older dog's health. Early detection and correction of medical problems help to ensure that your pet will be healthy and active for as long as possible.

This client information sheet is based on material written by Kristiina Ruotsalo, DVM, DVSc, Dip ACVP & Margo S. Tant BSc, DVM, DVSc.

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