



CLIENT INFORMATION SHEET: Canine Dilated Cardiomyopathy

Canine Dilated Cardiomyopathy

- Canine Dilated Cardiomyopathy (DCM) is a primary heart muscle disease that usually affects large breed dogs.
- DCM can have genetic, metabolic, nutritional, or infectious causes, but often the cause can't be found.
- Recently, some non-traditional, grain-free diets rich in legumes such as lentils, chickpeas and green peas have been associated with decreased heart muscle function, dilated cardiomyopathy and in extreme cases congestive heart failure.
- DCM is characterized by weak heart muscle function (decreased contractility), and enlargement (dilation) of the heart chambers.
- Irregular heartbeats (arrhythmias) often complicate DCM, and can sometimes cause of DCM. (tachycardia-induced cardiomyopathy)
- DCM is usually a progressive disease. Clinical signs occur when the heart can no longer pump enough blood to meet the body's needs for oxygen and nutrients (heart failure). Arrhythmias can cause clinical signs as well (episodes of weakness or fainting), and they cause some patients to die suddenly.
- DCM is inherited in some breeds (e.g. Doberman Pinschers, Boxers, Irish Wolfhounds, Great Danes).

How is DCM diagnosed?

- DCM may be diagnosed by screening tests in at risk breeds, allowing earlier treatment.
- Common screening tests include echocardiography, Holter (24 hour ECG) monitoring, and serum biomarkers such as NT-proBNP and troponin.
- Unfortunately, DCM is often first diagnosed signs of congestive heart failure are present.
- Genetic testing for traits that predispose to DCM is available for Boxers and Doberman Pinchers at NC State Cardiology Genetics lab. For more information, visit <http://www.ncstatevets.org/genetics/>

What is the treatment for DCM?

- Medications (pimobendan, ACE inhibitors, other medications) can delay the onset of heart failure in dogs identified by screening prior to the onset of clinical signs of heart failure.
- The treatment congestive heart failure (CHF) typically includes the above medications in addition to diuretics.
- Specific antiarrhythmic drugs therapy may also be needed.
- In addition to drug therapy, nutritional and metabolic supplements may be helpful.
- For diet-associated DCM, conventional drug therapy in addition to changing the diet can possibly reverse some of the myocardial dysfunction.

How can I tell how my dog is doing at home?

- The goal is for your dog to behave normally at home.
- Monitoring breathing rate when your dog is asleep will help detect the onset or recurrence of CHF.
- Normal respirations are less than 36 breaths per minute, but a 20% increase over 2 days is concerning.
- A smartphone app called Cardalis simplifies obtaining and tracking the breathing rate from a distance.
- Other signs can include decreased activity or appetite, coughing, weakness, fainting or belly distention.

What is the prognosis with DCM?

- Dogs identified by screening tests before the onset of clinical signs may do well for years.
- The average time to development of heart failure or sudden cardiac death is variable (1-4 years).
- Dogs with clinical signs of heart failure often survive 6 - 24 months with medications.