Dilated Cardiomyopathy

What is dilated cardiomyopathy?

Dilated cardiomyopathy (DCM), is a common heart disease often seen in dogs. In a healthy heart, the lower pumping of the chambers (ventricles) expand and contract to pump blood out of the heart effectively. In DCM, the heart muscles are weakened and are unable to contract efficiently.

As a consequence, the kidneys retain sodium and water to increase the amount of blood returning to the heart, which ultimately enlarges the ventricles to compensate for the ineffective pumping. This may result in fluid accumulation in the lungs (pulmonary oedema) or fluid in the belly (ascites). Fluid accumulation in the lungs or belly is also known as congestive heart failure.

Causes of dilated cardiomyopathy

DCM is almost certainly inherited in many breeds, though not limited to them. In some dogs, DCM is caused by a nutritional deficiency, specifically taurine deficient diets. The amino acid taurine is essential for healthy heart development and function. While some dogs (Cocker Spaniels and Golden Retrievers) may have a predisposition to taurine deficiency, other pets may be on a vegetarian diet causing a deficiency.

Grain free diets have also been known to cause DCM in breeds that usually are not predisposed to the disease. The potential for grain free diets to contribute to DCM is poorly understood at this time.

Breeds predisposed to DCM*

- Boxers
- Cocker Spaniels
- Dalmations
- Doberman Pinschers
- Golden Retrievers
- Great Danes
- Irish Wolfhounds
- Newfoundlands
- Portuguese Water Dogs
- Standard Schnauzers

*DCM is not limited to these breeds

Signs of DCM

Respiratory signs are most common, since blood is backed up to the lungs causing pulmonary edema. Fluid accumulation in the abdomen (ascites) or chest cavity (pleural effusion) may also occur in patients with DCM. Abnormal heart rhythms leading to weakness or collapse are common. In some breeds, sudden death or fainting can be the first sign of DCM.

- Can vary depending depending on breed
- May vary on the stage of the disease
    - Loss of apetite
    - Muscle wasting
    - Increased heart rate
    - Coughing
    - Difficulty breathing
    - Weakness
    - Fainting/collapse
    - Sudden death

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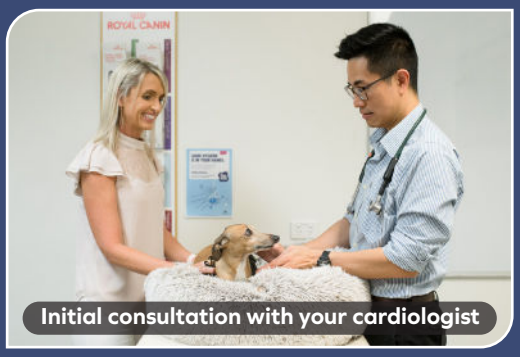
Diagnosis of DCM

At the initial consultation, your VCA cardiologist will listen to the concerns you have about your pet's health. During this consultation, we'll ask questions about any signs of heart disease you may have seen, examine your pet and talk you through the process of diagnosing heart disease.

Most patients will require an ultrasound of the heart (echocardiogram) to obtain an accurate diagnosis. Your pet will lie comfortably on a custom-made cushioned examination table while our cardiologists perform the ultrasound. Often our patients are given a mild sedative to reduce any anxiety they may be feeling. The ultrasound allows us to accurately assess mechanical function of the heart.

Your cardiologist may also perform x-rays of the chest to identify any fluid present in or around the lungs.

An ECG allows the cardiologist to assess the electrical function of the heart and identify irregular heart beats. For some patients the cardiologist may recommend a 24hr ECG (Holter ECG). This may markedly improve our understanding of your pets abnormal heart rhythm. The cardiologist will analyze the recording and advise regarding diagnosis and treatment.


Initial consultation with your cardiologist

Cardiologists performing an ECG test

Cardiologist performing echocardiogram

Cardiologists discussing xray results

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Treatment of DCM

The cardiologist will discuss treatment options that are tailored to your pets particular disease severity. The medications are prescribed to improve your pets quality of life and life-expectancy.

We believe in a holistic approach that brings together state-of-the-art medical therapies, surgical options, and a nutrition and exercise plan to help you give your pet the lifestyle they deserve.

Prognosis

DCM, in most instances is a progressive disease. If the disease is diagnosed early, your pet may live for several years before developing signs. Although the disease is fatal, survival rates depend on the stage of the disease, the breed, the type of DCM, and the effectiveness of the treatments discussed with your cardiologist.

For a minority of patients with dietary deficient-DCM, diet adjustment and supplementation may result in life-long resolution of heart disease.

After having seen your cardiologist, you will be empowered to give your pet a better quality of life through medicine, nutrition and exercise. With the right plan in place, you'll be able to give your best friend, their best life.

Our patient celebrating his birthday, one year after first being diagnosed with heart disease

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Registered Specialists in Cardiology

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