



Animal Emergency & Referral Associates

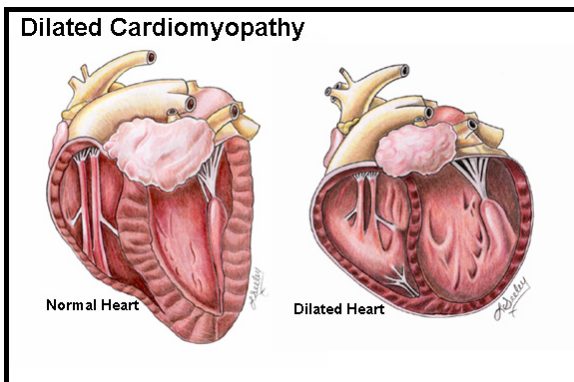
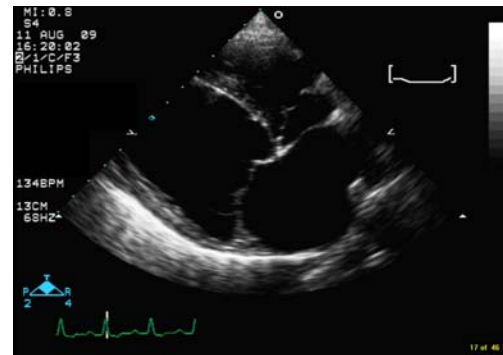
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Dilated Cardiomyopathy in Dogs

Understanding dilated cardiomyopathy (DCM)

Dilated cardiomyopathy of unknown cause (idiopathic) is a disease characterized by weakening and decreased pump function of the heart muscle with secondary heart chamber dilation. The cause of DCM is not clear but may involve genetic mutations of structural/functional heart proteins.



DCM is generally divided into two phases:

- 1) An occult phase, during which time disease is present but dogs remain asymptomatic. This phase can last months to years.
- 2) An overt clinical phase, when clinical signs develop.

Breeds at increased risk of developing DCM include:

- *Doberman Pinscher*
- *Great Dane*
- *Irish Wolfhound*
- *Scottish Deerhound*
- *Boxer*
- *Large breed dogs, in general*
- *American Cocker Spaniel (associated with nutritional deficiency)*
- *Portuguese Water Dog (juvenile form)*

Consequences and clinical signs

Weakening of the heart muscle activates mechanisms for sodium and fluid retention within the body that cause heart enlargement (dilation) and circulatory congestion. This can lead to exercise intolerance and *congestive heart failure* (for more information about congestive heart failure see our educational brochure *Heart disease and congestive heart failure*), usually manifested as respiratory

distress and/or coughing and weakness. The diseased heart muscle can also lead to electrical instability and abnormal heart rhythms, or *arrhythmias*. Arrhythmias can lead to syncope (fainting) and even sudden death.



Diagnosis

Diagnosis of DCM in dogs in the occult phase is usually via detection of arrhythmias and/or decreased cardiac pump function on routine evaluation or diagnostic screening. Diagnosis of DCM in dogs during the clinical phase is made when clinical signs appear caused by arrhythmias or decreased cardiac pump function in the absence of any other underlying cause (certain

conditions that can mimic DCM include other structural heart diseases, toxic cardiomyopathies, nutritional-associated cardiomyopathies, and myocarditis). The tests needed by your dog's cardiologist to diagnose DCM may include:

- Electrocardiography (EKG)
- Echocardiography (cardiac ultrasound), or
- Holter monitor (24 hour ambulatory electrocardiography)

Treatment

Treatment for the underlying heart muscle disease is not currently available, but treatment of clinical signs can be instituted and often improve patient quality of life. Congestive heart failure can be treated with medications that reduce circulatory congestion and improve heart function. Treatment of clinical signs associated with arrhythmias can be achieved via antiarrhythmic medications.

Prognosis

Prognosis for dogs in the occult phase of DCM is guarded, as clinical signs are expected to develop eventually but this phase may last for months to years. Serial reexamination by your dog's cardiologist is recommended every 6 months during this phase to monitor disease progression. Prognosis for dogs in the clinical phase of DCM is guarded to poor, with survival generally between 5-8 months from the time of diagnosis (slightly less in Doberman Pinschers), but treatment is often effective at alleviating clinical signs and improving quality of life.