

## Dilated Cardiomyopathy

Your dog has been diagnosed with a heart disease known as dilated cardiomyopathy (DCM). The term cardiomyopathy is used to indicate a disease of the heart muscle as opposed to a disease involving other cardiac structures such as valves.

Dilated cardiomyopathy often develops in large breed dogs (such as Doberman Pinscher, German Shepherd, Labrador Retriever). Boxer Dogs and Cocker Spaniels have a special kind of DCM. The general age group is 3 – 7 years. DCM results in a decreased pump function of the heart muscle (“systolic dysfunction”), which makes it difficult to send the blood into the body – the job of the left side of the heart. This can produce fluid accumulation in the lungs and results in decreased oxygen availability (left heart failure). If the right side is affected, then it is difficult for the heart to send blood to the lungs and from there to the left side of the heart. This can produce fluid accumulation in the chest (pleural effusion) and/or in the belly (ascites) (right heart failure). If an arrhythmia is present as well, it tends to aggravate the underlying condition.

Dogs afflicted with this disease may have one or more of the following signs (some have none!):

- Labored breathing and/or cough
- Distension of the abdomen/belly
- Weakness, lethargy, or exercise intolerance
- Loss of appetite
- Sudden weakness in the rear
- Fainting episodes

Your veterinarian may have found one or more of the following signs:

- Heart murmur
- Harsh lung sounds
- Muffled heart and/or lung sounds
- Arrhythmia (irregularity) of the heart beat, and/or heart beats too fast
- Fluid in the chest, or belly
- Enlarged heart on radiographs (X-rays)

The confirmation of the diagnosis can only be done by the echocardiogram (“echo”) of the heart. With the help of the echo, we can determine the size of the walls and the chambers, and the heart’s ability to contract. Fluid accumulation around the heart or in the chest cavity is also readily discernible. If an arrhythmia was audible, then an electrocardiogram (ECG or EKG) is indicated to diagnose the arrhythmia. Some breeds, or maybe all affected dogs (we don’t know yet) can start the process of developing DCM by just showing arrhythmias. In that case, a 24-hour-ECG, a Holter monitor, is indicated. It is easy to set up and fairly easy to maintain for 24 hrs if needed.

Unfortunately, we ignore the reason why DCM develops and we cannot cure DCM. Sometimes, another disease such as hypothyroidism can aggravate the situation and it is advised to test for it (a simple blood test). Treatment of DCM is individualized depending on the severity. Usually, an ACE-inhibitor such as enalapril or benazepril is initiated which promotes some decrease in the blood pressure, making pumping easier on the heart. Often, we add a diuretic such as lasix, sometimes helped by an additional diuretic such as spironolactone. Another, new drug is pimobendan (vetmedin) which is a potent vasodilator and helps with the contractility (a so called inodilator) which will be added if needed. If the contractility/pumping is quite impaired, digoxin is also added. This helpful drug will need some supervision in the form of blood tests. Some other drugs may have to be supplemented if the disease progresses (i.e. a paste for the ears for easier breathing, cage rest, oxygen therapy, and others). If an arrhythmia is present, it will most often need specific treatment as well.

The prognosis is highly variable and depends on the severity of the DCM and the affected breed. Unfortunately, some dogs will live only a few weeks or months, whereas others can do quite well. Please contact your veterinarian if you see any changes in your dog. An echo is advisable 3 months after starting therapy and the medication may need some fine tuning. An ECG should be repeated often until the correct drug and correct dosage for your pet’s arrhythmia has been found. I know how precious your dog is to you and I hope that I will be able to treat her or him for many months to come!

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