

Dilated cardiomyopathy (DCM) in dogs

What is dilated cardiomyopathy (DCM)?

Dilated cardiomyopathy is a form of heart disease characterized by weakening of the heart muscle, resulting in poor cardiac pumping and heart chamber dilation. The most common form of DCM is idiopathic, which means 'cause unknown'. However, the majority of patients with idiopathic DCM likely have the disease as a result of genetic abnormalities. At least two genes known to cause DCM in Doberman Pinschers have already been identified. Dilated cardiomyopathy can also be caused by nutritional deficiencies (e.g. taurine deficiency), hypothyroidism, and infectious/inflammatory disease. Although these causes are less common, they are always considered in any case of DCM. This brochure will predominantly focus on idiopathic DCM. Please see our website for more information regarding dilated cardiomyopathy associated with taurine deficiency and grain-free diets.



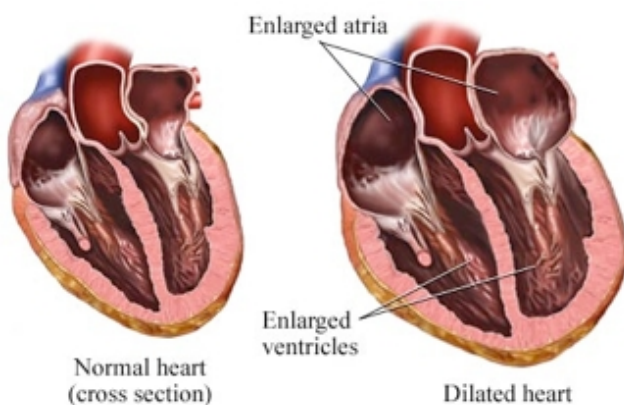
Idiopathic DCM is generally divided into three phases:

- 1) The genetically predisposed phase (Doberman Pinschers): If one or more copies of an abnormal gene associated with DCM have been identified via genetic testing, the dog is known to be at risk for developing overt DCM later in life even if the disease is not present at the time of genetic testing.
- 2) An occult phase, during which time disease is identified to be present but no clinical signs are present. This phase can last months to years.
- 3) An overt clinical phase, when symptoms develop. Clinical signs may include labored breathing, coughing, exercise intolerance, fainting/collapse, or lethargy

Breeds at increased risk of developing idiopathic DCM include:

- *Doberman Pinscher*
- *Great Dane*
- *Irish Wolfhound*
- *Scottish Deerhound*
- *Boxer*
- *Large breed dogs, in general*

Consequences and clinical signs



Weakening of the heart muscle results in chronic sodium and fluid retention within the body. This can lead to *congestive heart failure*, which is the syndrome of leakage of fluid into tissues or body cavities secondary to cardiac dysfunction. Common clinical signs of congestive heart failure include coughing, labored breathing, weakness, fainting, and abdominal distension.

DCM can also lead to electrical instability and abnormal heart rhythms, or *cardiac arrhythmias*. Arrhythmias can lead to syncope (fainting) and even sudden death. Some dogs with DCM will develop both congestive heart failure and cardiac arrhythmias.

