

Dilated cardiomyopathy

Dilated cardiomyopathy is a primary problem of the heart muscle which starts with weakening of the muscle and subsequently results in dilation of the heart chambers. The weakened, dilated heart has decreased pumping, resulting in poor blood flow. If the heart function is severely impaired, this can lead to accumulation of fluid in the lungs, chest cavity, or abdomen, which is congestive heart failure. Dogs with dilated cardiomyopathy are also very prone to developing abnormal heart rhythms, called arrhythmias.

There are varying stages of dilated cardiomyopathy. Dogs may be considered predisposed to the disease but not have any signs of it yet. An example of this would be a high risk breed such as a Doberman Pinscher or a Great Dane or a dog who has a family history of the disease. In these cases, routine screening is recommended to identify the disease early so that treatment can be initiated. The "occult" phase of the disease refers to dogs that have either abnormal heart rhythms or weakened heart muscle associated with DCM but have no outward symptoms yet. Treatment may be recommended in this early phase in some dogs. Treatment in the occult phase for dogs with a weakened heart muscle has been proven to prolong the time until congestive heart failure develops. Dogs that are outwardly exhibiting symptoms are referred to as being in the clinical stage. Clinical signs may include lethargy, weakness, exercise intolerance, collapse, coughing, or heavy breathing. If any of these signs are present, an evaluation is warranted immediately so that treatment can be initiated. Unfortunately, dogs with an abnormal heart rhythm can also die suddenly with no prior indication of ever having had a problem.

Dilated cardiomyopathy is thought to be genetic in nature. There are gene mutations which have been identified in Doberman Pinschers, Great Danes, and Portuguese Water dogs. These are only a small portion of the mutations likely responsible. Other disease processes, such as an underactive thyroid gland (hypothyroidism), underactive adrenal gland (hypoadrenocorticism) and severe infection (sepsis) can also cause weakening of the heart muscle similar in appearance to dilated cardiomyopathy, but in these instances the heart muscle weakness typically improves or resolves after the underlying cause is identified and treated. A certain chemotherapy drug, called doxorubicin, can also cause similar effects on the heart muscle when used for prolonged periods, and these effects are typically irreversible.

Treatment of dilated cardiomyopathy is aimed at counteracting hormones which cause salt and water retention, improving the strength of the heart muscle, controlling fluid accumulation, and controlling abnormal heart rhythms. Early treatment is considered helpful in this disease process, so routine screening for dogs that are at risk is recommended, often starting as early as age 2.