

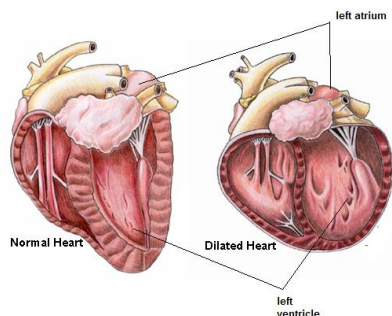
## Dilated CardioMyopathy (DCM)

### What is the DCM?

DCM is a primary disease of the heart muscle in dogs. It is thought to be a genetic disease of large breed dogs. It is the second most common cause of heart disease, behind mitral valve disease which tends to occur in small breed dogs. DCM occurs from failure of the left ventricle of the heart to relax and fill and then to contract. The muscle of the heart becomes weak and flabby and is unable to contract properly anymore. In addition to being unable to contract, the mitral valve between the left atrium and ventricle begins to fail resulting in enlargement of the left atrium and eventual build up of fluid on the lungs.

The large breeds of dogs that suffer DCM are; Boxers, Doberman pinchers, English Cocker Spaniels, Newfoundlands, St Bernards, Standard Poodles, Afghan hounds, Portugese Water dogs, Irish wolfhounds, Great Danes and Deerhounds. Most disease tends to occur without any known underlying cause (idiopathic) however the disease can occur secondarily to nutritional, metabolic, toxic or infectious causes

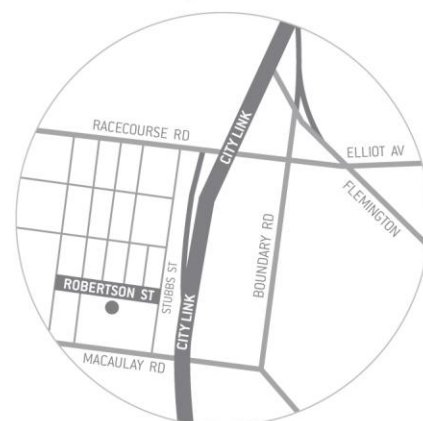
Dogs tend to present in their middle years of age (5-7 years) and males are more at risk than females.



### What clinical signs will your pet show with DCM

Sometimes the disease will first be diagnosed in the asymptomatic form. This means that the heart is enlarged and abnormal, but the dog is able to compensate and show no outward signs. With time and decompensation, signs begin to appear, and they may appear very suddenly. The signs are; coughing, rapid

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and heavy breathing, exercise intolerance, lethargy, inappetance, weight loss, fainting (syncope) and blue gums (cyanosis).

### How is DCM diagnosed?

Suspicion of DCM is first detected from physical exam. Dogs will have a high heart rate and may have an abnormal rhythm (Arrhythmia) and possibly a murmur. Xrays and ECGs will provide evidence to support DCM. Confirmation of the diagnosis is made with a cardiac ultrasound. The cardiac ultrasound enables a picture of the heart in motion to be studied and certain measurements to be made.

### How is DCM treated?

There is no cure for DCM. We have medical therapy to slow the progression of the disease and control the signs but unfortunately a heart transplant is not possible.

The goals of therapy are to slow the heart rate, obtain a normal rhythm, prevent fluid build up on the lungs and promote the hearts contractility.

The drugs that slow the heart rate are usually of the class belonging to beta blockers. These are drugs commonly used in humans for heart failure.

The drugs that prevent fluid build up on the lungs are called diuretics. The most common diuretic and most potent diuretic used in dogs are frusemide. The other less commonly used and less potent diuretics is spironolactone.

The drugs that improve the contractility of the heart are becoming very effective in the control of DCM in dogs. This drug called Vetmedin has the added effect of increasing the hearts contraction strength without increasing its oxygen consumption, and also causes relaxation of systemic blood vessels which allows the heart muscle to work against less resistance.

### What are some complications of DCM?

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The most common complications are arrhythmias, some of which can lead to sudden death. Treatment of these arrhythmias is difficult and involves hospitalisation with intensive management.

The most common arrhythmias of DCM are ventricular premature complexes and ventricular tachycardia. These can be treated with anti-arrhythmic medications such as sotalol or mexilitine.

Another complication is the development of life threatening pulmonary oedema (build up of fluid in the airways). This requires immediate intervention and intense hospitalisation with oxygen and diuretics.

### How long can your pet expect to live?

The prognosis for dogs with DCM is not good. They are at risk of sudden death from heart attacks. Some prognostic indicators have been established in dogs. The younger the age of onset, the presence of fluid in or around the lungs (pulmonary oedema or pleural effusion), atrial fibrillation and biventricular heart failure are associated with a poor prognosis.

Approximately 17.5% of dogs with DCM will survive 1 year and 7.5% will survive up to two years

In order to prolong your pet life you can avoid stressful situations and strenuous exercise. Supplementation with L-carnitine, Coenzyme Q10 and taurine. In some studies supplementation with these improves the heart muscles ability to generate energy and contract better.

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