

## Heart Disease In Dogs

Does your dog do any of the following?

- Cough
- Difficulty breathing
- Appear weak or collapse after short periods of exercise
- Sudden weight loss
- Swelling in the abdomen

If your dog has one or more of these signs he or she may be in heart failure due to heart disease.

Heart disease can be present at birth (congenital) or acquired. Congenital heart disease usually becomes apparent when the dog is a pup, whereas the more common acquired heart disease affects older dogs. Unlike humans dogs do not suffer from fatty plaques blocking the blood supply to the heart. The two most common acquired heart diseases in dogs are:

- i) Problems with the valves in the heart (endocardiosis)
- ii) Thinning and weakening of the muscular walls of the heart (dilated cardiomyopathy)

The following is a simplified drawing of the dog's heart.

The heart has valves that allow one directional flow of blood. Blood comes in from the body and then the right side of the heart pumps it to the lungs (to oxygenate the blood). This blood then returns to the left side of the heart which then pumps the now oxygen rich blood to the rest of the body.

In endocardiosis (valve disease) these valves become thickened and distorted. They no longer close properly and leak blood backwards. This impairs circulation of the blood and now the heart has to work harder just to get oxygen into the blood. The heart can initially compensate for this but at some point it can't compensate any longer. At this point the dog will show signs of heart disease.

In dilated cardiomyopathy the muscle of the heart no longer contracts properly. These contractions pump the blood around the body. As the contractions become weaker, the heart muscle gets thinner. Once again the heart compensates up to a point but once that point is reached the dog starts to show signs of heart failure.

Heart failure affects the whole body. The lungs get a build up of fluid in them resulting in a cough. The liver gets a pressure build up and seeps fluid into the abdomen. Clots can occur in the kidneys reducing their ability to excrete waste products. And the muscles get insufficient oxygen causing the dog to be weak.

There are various ways to diagnose heart disease in dogs. These include auscultation (listening with a stethoscope to the heart), radiographs (x-rays), electrocardiograms (ECGs) or ultrasounds.

There is no cure for most forms of heart disease in dogs. However there are a number of medications that your veterinarian can prescribe that will help your dog live a longer and more comfortable life.