

Heart Disease in Dogs and Cats

Heart disease is a broad term for any disease affecting the structure and function of the heart. These may be primary heart defects present from birth (congenital) or secondary to disease processes (acquired).

Congenital heart disease can include defects with the valves, (such as narrowing known as stenosis), defects within the heart muscle (holes in the heart), or abnormal development of the structure of the heart and major vessels.

Acquired heart disease can affect the heart muscle (cardiomyopathies), degeneration or thickening of the valves (endocardiosis), or be secondary to infection or trauma (endocarditis / myocarditis / heartworm disease). Other disease processes can also lead to secondary heart disease, such as hyperthyroidism and hypertension.

How common is it?

Heart disease is very common in cats, but many are unaffected clinically. It is very difficult to predict which cats with heart disease will go on to develop symptoms. In one study of healthy cats, 15% had evidence of structural heart disease despite showing no clinical symptoms¹.

It is estimated that 10% of all dogs seen in primary care veterinary practices have heart disease. Prevalence rises with advancing age and in older dogs more than 60% are affected². Some breeds are predisposed, for example Cavalier King Charles Spaniels, with heart murmurs characteristic of mitral valve disease increasing at a rate of about 10% for each year of life, so that by five years of age 50% have a murmur and by ten years nearly all do³.

Symptoms

Depending on which side of the heart is affected, different clinical signs may be present. Animals, especially cats, are very good at hiding the early signs of heart disease and compensate well until they have advanced disease.

Mild signs may include; lethargy, reduced exercise tolerance, pale or bluish gums especially after exercise

Moderate signs include; breathlessness, increased effort breathing, fainting, inappropriate urination, unsteady walking, swollen belly, cold extremities, weight loss

Severe signs include; open mouth breathing in cats, difficulty rising or walking, collapse, painful lameness (in cats), and sudden death

Diagnosis

Vets use a variety of diagnostic tools to confirm heart disease, depending on the type of disease suspected. These can include x-rays, ultrasound, ECG, blood tests and blood pressure monitoring.

Treatment

Some early forms of heart disease may require no treatment at all but regular vet checks to monitor the heart are often recommended. Treatment is usually recommended once the heart disease leads to heart failure. Heart failure occurs when the heart is unable to keep up with the demands of the body and becomes overloaded. This leads to fluid build-up in the chest or abdomen. Treatment, such as diuretics (water tablets), can be given to dissipate the fluid. Additional treatments may be given to support the function of the heart, support normal blood pressure, normalise the rhythm or reduce the risk of blood clots developing. Once treatment is started it is often lifelong.

Prevention

Regular steady exercise helps to maintain a strong, healthy heart. Feeding a balanced diet containing sufficient essential nutrients (such as taurine) is also important for heart health. Some breeds predisposed to specific types of heart disease and pre-breeding heart check schemes are recommended. Genetic tests are also being developed^{4,5}. If you are travelling with your dog to an area where heartworm is endemic, appropriate worming treatment from a vet is important to prevent infection. Speak to your vet for recommendations on how best to support a healthy heart in your pet.

1. <https://www.sciencedirect.com/science/article/pii/S1760273415000685>
2. <https://www.epictrial.com/canine-heart-disease-classification>
3. http://www.thecavalierclub.co.uk/health/hearts/reports/swift_09.html
4. <https://www.vin.com/apputil/content/defaultadv1.aspx?pld=11387&meta=Genetic&id=5947814>
5. <https://icatcare.org/advice/cat-health/hypertrophic-cardiomyopathy-hcm-and-testing>