

Heart Murmurs

This is a brief guide for owners. Your vet has probably just heard a heart murmur while examining your pet. Heart murmurs are not uncommon in normal animals so hearing a murmur in a healthy animal should not cause you to worry. There are various options for investigating the cause of a heart murmur and these are described below. Please refer to the section relevant to your pet.

Puppies and Kittens

Puppies and Kittens should have their hearts checked at vaccination time and it is not uncommon for the vet to hear a murmur. Puppies and kittens often have flow murmurs, which is the normal sound of blood flowing through the heart valves. Flow murmurs will often disappear as the animal relaxes and the heart rate slows. Flow murmurs usually disappear by six months of age so if a flow murmur is suspected then a re-examination at your pet's adolescent health check at five months of age is advisable. (If a flow murmur has been recorded prior to pet insurance being taken out then it is best to consult your insurance company to find out if your policy is affected and how to update your policy if the murmur disappears).

A murmur due to a congenital defect is often louder than a flow murmur and may be of a distinct character that your vet may recognise. Boxers are particularly prone to a type of congenital defect called aortic stenosis and heart scoring is available for boxers prior to breeding. Heart scoring can be performed for any breed if desired.

A significant congenital defect may cause signs including tiredness, poor growth, coughing, blue-tinged tongue/gums and collapse. The early recognition of these signs is useful if surgical correction of a defect is to be considered.

Adult Cats

Adult cats often have heart murmurs; as many as one in four cats! Some may be flow murmurs, but this is uncommon. Stress can cause high blood pressure which may precipitate a murmur. In cats many heart murmurs are related to disease elsewhere – thyroid disease and kidney disease are the most common causes but several conditions can cause high blood pressure. Excessive drinking and weight loss are common with thyroid or kidney disease. It is wise in mature cats to check for these diseases by running a geriatric blood profile including a thyroid test, as well as measuring blood pressure. If these tests are negative it is likely that a murmur is due to heart disease.

Feline heart disease is often due to a condition called Hypertrophic Cardiomyopathy (HCM). HCM causes the muscle of the heart to thicken and inhibit normal filling of the heart. In the early stages there is no medication known to slow the progress of this disease. When HCM causes signs of heart failure then medication is required to control the condition. Signs of heart failure include:

- Tiredness
- Rapid breathing
- Decreased appetite
- Collapse

The degree of heart enlargement may give some indication of how soon heart failure is likely to occur. In some cases, blood clots can form in the heart and lodge in blood vessels in other parts of the body (embolism). In cats this most commonly affects the hind limbs causing paralysis, and treatment is difficult. Vets often prescribe very low doses of anti-clotting agents to try and prevent this problem, but it is not clear how successful this is. For these reasons ultrasound is often recommended.

Adult Dogs

Many dogs have normal flow murmurs, it is also common for dogs to have mild valve defects that cause murmurs but do not lead to significant heart disease. A heart murmur in a healthy dog is therefore not necessarily a cause for concern.

Heart disease affects as many as one in ten dogs (one in seven dogs over seven years old). The most common cause of a significant heart murmur in dogs is Mitral Valve Disease. This occurs when the heart valves thicken with age, causing significant leaking of blood in the wrong direction. The heart may compensate for a time, but eventually heart failure develops. The signs of heart failure include:

- Coughing (especially at night)
- Tiredness
- Collapse
- Excess abdominal fluid
- Decreased appetite

Treatment is generally only required when the signs of heart failure develop.

The other common heart disease in dogs (generally large breed dogs) is Dilated Cardiomyopathy (DCM). This condition causes the heart to dilate and the muscle of the heart weakens. This condition tends to cause murmurs but they are often faint and diagnosis relies on other signs of heart failure.

Diagnosing Heart Disease:

Looking for heart disease and signs of heart failure generally involves chest x-rays and an ultrasound exam (echocardiograph). If an animal has an irregular heart then an ECG is also necessary. In puppies and kittens with a murmur it may only be necessary to perform an ultrasound exam as a chest x-ray is unlikely to be of any help. Treatment will be based on evidence of heart failure rather than the presence of a murmur.

Radiography:

Chest x-rays assess the overall heart size and lung changes. X-rays are useful for assessing if heart failure is present and looking for other causes of coughing. Sedation is generally required for taking x-rays and ideally a general anaesthetic if the animal is stable enough. It is important to take at least two views of the chest to see all areas of the lungs.

Echocardiography:

Ultrasound images of the heart will assess chamber sizes and muscle function, as well as measuring the flow of blood through the heart valves. Ultrasound is necessary to identify the type of heart disease present. Ultrasound rarely requires sedation in dogs but cats are often sedated. An ultrasound is the single most useful test to identify the cause of a murmur in a healthy looking animal.

ECG:

This measures the electrical activity of the heart and is best used for assessing heart rate and rhythm. If there is an irregularity then specific medication may be required. Abnormal rhythms (arrhythmias) are often associated with collapse.

In conclusion heart murmurs are not a specific indication of heart disease but may require further investigation depending on the circumstances. It is best to discuss if further investigations are necessary with your vet at the next appointment.



Quick Reference Guide



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