

Patton Veterinary Hospital
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Heart Murmurs

A heart murmur is simply abnormal or turbulent flow of blood through the heart due to several causes including structural and metabolic abnormalities. Heart murmurs are diagnosed by listening to your pet's heart at the time of the physical exam, although not all murmurs or heart abnormalities can be picked up with a stethoscope. Murmurs are an indication of an underlying heart disease, but do not necessarily mean your pet is in heart failure. Heart failure is one of the last stages of heart disease when clinical signs are becoming evident. These clinical signs include coughing, exercise intolerance, lethargy, increased respiratory rate, difficulty breathing, etc.

Types of Murmurs.

- Benign, or 'innocent', murmurs are murmurs that have no apparent cause. These are most often heard in young puppies and kittens and resolve on their own usually by 12-16 weeks of age.
- Congenital murmurs are due to a structural abnormality with the heart that the puppies and kittens are born with. These murmurs are most often, but not always, heard by 12 months of age.
- Acquired murmurs are the most common type of murmur seen in our veterinary patients. Middle to older aged pets is when acquired murmurs are first discovered. These murmurs are a result of degenerative changes to the structures of the heart (valves, wall, etc). Small breed dogs have the highest incidence of acquired heart murmurs. They most commonly get mitral valve disease (MVD), which as the name implies is when the heart valves become insufficient. Large and giant breed dog's most common murmur is due to dilated cardiomyopathy (DCM), which is when the chambers of the heart enlarge but the heart wall gets thinner causing the heart to be too weak to beat. Cats most commonly get hypertrophic cardiomyopathy (HCM), which is thickening of the wall of the heart and the chamber size therefore becoming smaller.
- Metabolic murmurs are the result of an underlying sickness such as anemia (low blood volume), dehydration, etc. These murmurs often resolve by correcting the underlying problem.
- Please keep in mind this list is not all inclusive, but highlights some of the more common murmurs.

The progression of heart disease.

With many of acquired heart murmurs the degeneration is a chronic, progressive process that is irreversible. The heart is able to do an amazing job compensating for these changes for quite a long time. However, this protective mechanism will eventually be unable to compensate. This is the stage where congestive heart failure (CHF) develops and the associated clinical signs are recognized. In general, the lower the grade

of the murmur (1-3 out of 6), or softer it sounds, the less severe it is. As the murmur grade worsens (3-6 out of 6) the louder it will sound.

Diagnosis.

As mentioned above the initial diagnosis of a murmur is made by listening to the heart with a stethoscope. To know the cause of the murmur a heart ultrasound, or echocardiogram, by a veterinary cardiologist is needed. Radiographs are often the initial test performed and are the test of choice to determine if your pet is in heart failure. Additional screening tests include blood work and blood pressure.

Treatment.

Treatment is varied and depends on the type of murmur your pet has. Many congenital murmurs can be repaired surgically. These are procedures that must be performed by a veterinary surgeon or cardiologist. Treatment for acquired murmurs, such as mitral valve disease, is primarily with medications. There has been no consistent evidence, however, that early treatment will slow down or prevent the progression of heart disease. Therefore treatment is often reserved for pets that are showing signs of heart failure clinically or on radiographs. The medications we use will help manage the CHF ('fluid on the lungs', coughing, etc) and help the heart beat more efficiently.

At home monitoring

Only about 25% of pets with heart murmurs go into heart failure requiring some form of treatment. The other 75% may carry on a normal life with no signs of heart failure. It is important that you monitor your pet at home for evidence of coughing, increased breathing rate and difficulty breathing. One of the first signs of progressing heart disease is an increased breathing rate. You should monitor their resting breathing rate by measuring how many breaths they take in 15 seconds and multiply it by four. This gives you their breaths/minute. A normal pet should be less than 20 when at rest. If consistently over 30 breaths/minute, you should have your pet examined immediately as this indicates early heart failure.

Once the diagnosis of a murmur is made, regular checkups with your veterinarian are very important. This allows monitoring for progression of the murmur and heart disease. Some of the medications have side effects that need to be monitored by measuring blood pressure and blood work.

If you have any further questions or concerns, please call The Patton Veterinary Hospital.

Kevin Schmidt, DVM