

# Heart Disease in Cats

## Cardiology Service



**Michigan Veterinary  
Specialists<sup>sm</sup>**

www.michvet.com

We Can Help

### Available Services

- 24/7 Emergency & Critical Care
- Cardiology
- Computed Tomography
- Dermatology & Allergy
- Internal Medicine
- Interventional Radiology
- MRI
- Neurology
- Neurosurgery
- Oncology
- Oncologic Surgery
- Ophthalmology
- Orthopedic Surgery
- Radiology & Fluoroscopy
- Radiation Therapy
- Soft Tissue Surgery
- Ultrasound

### Locations

#### **Auburn Hills**

3412 E. Walton Blvd.  
(West of Squirrel Rd.)  
(248) 371-3713

#### **Grand Rapids**

1425 Michigan St. NE  
(East of Fuller Rd.)  
(616) 284-5300

#### **Southfield**

29080 Inkster Rd.  
(North of 12 Mile Rd.)  
(248) 354-6660

### **General Information**

There are several types of heart muscle disease (cardiomyopathy) in cats. Hypertrophic cardiomyopathy (HCM) is an inherited disorder that manifests as thickening of the left ventricle (one of the lower chambers of heart), such that the heart muscle has a decreased ability to relax and fill normally with blood. Breeds such as the Maine Coon and Ragdoll have been found to be predisposed. Restrictive cardiomyopathy (RCM) is characterized by stiffening of the ventricles, with a decreased ability to relax, and often to contract. Dilated cardiomyopathy (DCM) is characterized by dilation and weakening of one or both ventricles, such that the heart has a decreased ability to contract and pump blood forward to the body. This historically has been associated taurine-deficient diets, and is now rare in cats. Unclassified cardiomyopathy (UCM) is the term used for cats with cardiac abnormalities that do not necessarily fit into one of the above categories.

### **Diagnosis**

Cats with heart disease may be identified based on physical exam findings, such as a heart murmur or arrhythmia (abnormal heart rhythm) or gallop rhythm. However, in some cases, there are no abnormalities on physical exam. The best way to diagnose heart disease is by referral to a cardiologist for an echocardiogram (ultrasound of the heart), which evaluates for specific heart chamber enlargement, to evaluate heart function, and to evaluate for other complications or sequelae of heart disease. Thoracic radiographs are often used to evaluate for congestive heart failure (fluid in or around the lungs). Other diagnostics, such as a blood pressure or blood work may be recommended to further evaluate for other abnormalities which may complicate management of heart disease.

### **Complications and Sequelae**

The progression of feline heart disease is variable and should be monitored on a regular basis. Over time, signs of heart failure may develop, which include an increased respiratory rate and effort (heart failure), loss of appetite, lethargy, weakness, exercise intolerance, and collapse. In addition, cats with heart disease and severe enlargement of the atria (top chambers of the heart) may be more prone to forming blood clots in the heart. These clots can dislodge and travel to various parts of the body, resulting in paralysis or lameness of the hind limbs or right front limb, acute kidney failure, sudden difficulty breathing, or sudden death. Arrhythmias (abnormal heart rhythms) may also be present, and increase the risk for sudden death.

Systolic anterior motion of the mitral valve (SAM) is an abnormal movement of the mitral valve, which separates the left atrium from the left ventricle. Normally when the heart contracts, this valve is closed, preventing backflow of blood from the left ventricle to the left atrium. With SAM, one of the mitral valve leaflets actually swings in the opposite direction, and obstructs the outflow of blood from the left ventricle out the aorta to the body.

Diseases which cause high blood pressure, such as hyperthyroidism and kidney disease, can be complicating factors in the management of heart disease, and should be monitored and treated as needed.

### **Treatment**

In the asymptomatic stages of feline heart disease, treatment may or may not be indicated, depending on the echocardiographic findings. Medications, such as Diltiazem, may be used to help improve relaxation of the heart muscle, or Atenolol, a beta blocker, may be used to slow the heart rate in an attempt to reduce SAM. In addition, if significant enlargement of one or both atria is present, medications such as angiotensin converting enzyme (ACE) inhibitors and anti-platelet medications are recommended to reduce the risk of blood clot formation. Once heart failure develops, diuretics such as Furosemide are used. In addition, although not currently labeled for use in cats, Pimobendan may be used at the discretion of your cardiologist, following a diagnosis made by echocardiogram. Diet changes are usually not indicated. Avoiding high sodium diets and treats is always a good practice. If your pet has advanced heart disease, it is recommended that he/she remain indoors or go outdoors only with supervision. Thus, should he or she have any difficulties, you will be able to more easily identify problems.

### **Prognosis**

Feline heart disease is often a progressive disease. With careful monitoring, appropriate medical therapy can be implemented earlier in hopes of preventing rapid decline into severe heart failure. This way, we can limit visits to the hospital or emergency room. Our goal is to keep your pet feeling as good as possible for as long as possible.

If your pet begins to show any signs of breathing difficulty, loss of appetite, sudden lameness or paralysis, exercise intolerance, or collapse, he or she should be evaluated sooner. Please call us if any of the above clinical signs become apparent.

