



# Heart Disease in Cats: What's up with that?

by Dr. Janet Olson, DVM, DACVIM (Cardiology)

Cardiology for cats is tough. Most of the cardiology we, as veterinarians have learned, pertains primarily to dogs, or is out-dated in regards to the best practice for cats. Unlike dogs, we can not “breed profile” to help us determine if a cat is likely to have heart disease and if so, what type. So here are a few pointers to help you out in your practice.



## Golden Rules

- Cats can have heart murmurs without any cardiac disease (physiologic in nature) - Yay!
- Cats may have significant heart disease without the presence of a murmur or an arrhythmia - making it tough to diagnose - boo!
- Any cat with pleural effusion has heart disease until proven otherwise
- Cardiogenic pulmonary edema often takes on a ventral distribution in the chest vs the typical caudal-dorsal distribution seen in dogs, but in reality can present any way it wants
- Heart disease can be a silent killer in cats - no murmur or arrhythmia may be present and then -> the cat dies suddenly at home, or perhaps under anesthesia (no good)
- Cats with subclinical hypertrophic cardiomyopathy (HCM) can remain asymptomatic for 5 + years without any therapy (can you then justify life long therapy in these cats???)
- Pimobendan (Vetmedin) can be useful therapy in cats with left ventricular systolic dysfunction (i.e. dilated or some forms of unclassified cardiomyopathy) and potentially detrimental in hypertrophic or obstructive cardiomyopathy - best way to find out what you are dealing with is to have an echocardiogram performed.

## When is a cardiac evaluation warranted?

Cats may or may not have any clinical signs associated with even severe heart disease. Therefore, *if evidence of heart disease is ever detected, such as an arrhythmia, heart murmur or labored breathing, a cardiac evaluation is warranted.* In dogs, physical examination findings, along with radiographic findings, and our ability to “breed profile” (i.e. small breed, older dogs with a left apical systolic murmur most likely have chronic degenerative valve disease and golden retriever puppies with a loud left basilar systolic murmur most likely have subaortic stenosis) allow us to make some educated decisions about cause and thereby, provide relatively sound monitoring and therapeutic plans, in the absence of advanced testing such as an echocardiography. And, nine out of ten times, we will probably be right (but that's another discussion). Such is not the case in cats. Any cat, any breed, any age, with any clinical presentation (ranging from asymptomatic to collapse to respiratory failure) may have any given cardiac disease. Great... right? So test, we must.

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## Diagnostic Considerations

### The asymptomatic cat: pre-anesthetic screen

- 6 lead ECG to screen for a left anterior fascicular block-like pattern which may indicate left ventricular enlargement - if noted - pursue echocardiography
- Thoracic radiographs: if cardiac enlargement noted - pursue echocardiography

\*\* Keep in mind these are considered screening tests. Normal findings do not rule out the possibility of heart disease, but do provide a better comfort level for pursuing anesthesia.

### Cats with a heart murmur, respiratory distress or collapse

- Thoracic radiographs AND
- Echocardiogram

### Cats with an arrhythmia (fast, slow or irregular)

- ADD a 6 lead ECG to the radiographs and echocardiogram

## Why are radiographs alone not enough?

- As noted above, cats with severe heart disease may have a normal appearing cardiac silhouette on radiographs (consider the HCM cat that has “inward” concentric hypertrophy) - so normal rads do not mean normal heart.
- Cats with “big” hearts may have a variety of cardiomyopathic diseases including hypertrophic, dilated, unclassified, or restrictive cardiomyopathy which each warrant individual therapeutic consideration. The age and breed won't help you here. So “big heart” does not help you determine cause or appropriate therapeutic options. For example, there are some sentiments that using Pimobendan in hypertrophic or obstructive disease is contraindicated, but evidence that it can be very helpful in conditions with poor contractility such as dilated cardiomyopathy. Without an echocardiogram, you can not make a good therapeutic recommendation to your client.

So don't approach your cats like dogs. Provide the diagnostic care they need so you can make sound therapeutic recommendations for these unique patients of ours.

Need assistance? Veterinary Cardiology Specialists offers comprehensive cardiac evaluations on-site at your practice - working with you to provide uncompromised care for your cardiac patients. To schedule an appointment, or for pricing information, contact VCS at 612-353-7440.

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