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Cat Tips

This Critical Feline Condition Can Remain Hidden for Years, and Then

It suddenly expresses itself in a major way. Because cats are such masters at disguising illness, she'll be far gone by the time you find out. Discover these subtle hints of something amiss, and the early detection blood test that can help you manage this deadly condition early on.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Heart disease is more common in dogs than cats, however, it may be more prevalent in cats that anyone realized
- Several studies indicate that heart murmurs and heart disease are present in a large proportion of apparently healthy pet cats
- The most common type of feline heart disease is hypertrophic cardiomyopathy (HCM)
- While there is no cure for HCM, it can be well-managed using a combination of natural supplements and a human-grade, meat-based diet

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Heart disease, which has traditionally been considered more common in dogs that cats, may actually be more prevalent in kitties than we thought.

Studies Show Many Apparently Healthy Cats Have Heart Problems

A prospective study of 103 healthy pet cats conducted in 2004 at Angell Memorial Animal Hospital in Boston concluded:

> *"... [H]eart murmurs were detectable in a large proportion of overtly healthy cats and that many murmurs appear to be caused by structural heart disease that is in a clinically latent state."*[1]

Of the 103 cats in the study, 22 (21%) had detectable heart murmurs. Of the 22 cats with heart murmurs, echocardiography was performed on 7, 6 of which turned out to have heart disease.

Thirteen kitties were examined more than once for the study, and 3 of them developed heart murmurs during the course of the study.

In 2009, a cross-sectional study of another 103 "overtly" healthy privately owned cats was conducted at the Virginia-Maryland Regional College of Veterinary Medicine, Virginia Polytechnic Institute in Blacksburg.

The objective was to determine the prevalence of cardiomyopathy in healthy cats, as well as the relationship between cardiomyopathy and heart murmurs.[2]

A heart murmur was detected in 16 cats (15.5%), 5 of which had cardiomyopathy (a disease of the heart muscle). Cardiomyopathy was also identified in another 16 cats, 15 of which had hypertrophic cardiomyopathy, the most common form of feline heart disease. The researchers concluded that:

1. Cardiomyopathy is common in healthy cats
2. In apparently healthy cats, a heart murmur isn't a reliable indicator of the presence of cardiomyopathy

However, in a 2011 study of a smaller sampling of 32 apparently healthy cats with heart murmurs, heart disease was detected in over half (53%). Those researchers concluded that heart murmurs detected in routine physical exams of healthy cats warrant further investigation.[3]

If you have a feline companion, it's important to know what types of heart problems she may encounter. Sometimes the signs are obvious to a trained eye (your veterinarian). But often a serious heart disorder in a cat can remain hidden for years before it suddenly expresses itself.

Congenital Heart Disease

There are two types of feline heart defects — congenital and acquired. Congenital heart disease is present at birth, and while signs often appear at a young age, in some kitties congenital heart disease can go undetected for years.

Sometimes, what seems to be adult onset (acquired) heart disease turns out to be the result of an inherited condition that progressed over time, eventually causing symptoms.

Congenital heart disease can be caused by a malformation of the heart as a kitten develops in utero, or it can be caused by an inherited disorder that is passed on to the entire litter.

Luckily, congenital cardiac disease is relatively rare in cats, occurring in only 1% to 2% of kittens. The most common congenital disorders are heart valve malformations (typically the mitral valve), and holes in the septa (the walls separating the chambers of the heart).

The outlook for a kitten with a congenital cardiac disorder depends on the severity of the defect. Minor defects may not affect a cat's life at all, while more serious disorders usually require medical treatment. The most severe defects typically carry a poor prognosis.

Acquired Heart Disease

Acquired or adult onset heart disease in cats results from damage to the heart that occurs over time.

The most common type of acquired heart disease in kitties is cardiomyopathy, which accounts for about two-thirds of feline heart conditions. Cardiomyopathy is a structural abnormality in the muscle surrounding one or both chambers of the heart. Typically the left ventricle becomes thickened, dilated or scarred.

The abnormality inhibits the heart's ability to collect and pump blood, which can lead to congestive heart failure and fluid in or around the lungs. Other complications of cardiomyopathy include blood clots that cause paralysis, and sudden death.

It is thought that both genetics and lifestyle (weight, diet, and physical activity) play a role in the development of feline cardiomyopathy. Occasionally, the condition develops secondarily to another disorder such as anemia, hyperthyroidism, or high blood pressure.

Three types of heart disease account for almost all the primary cardiomyopathies diagnosed in cats: hypertrophic cardiomyopathy, restrictive cardiomyopathy, and dilated cardiomyopathy.

Hypertrophic Cardiomyopathy

Hypertrophic cardiomyopathy (HCM) is by far the most common type of primary heart disease in kitties, accounting for 85% to 90% of all cases.

Hypertrophic means thickened — the walls and ventricles of the heart become too thick, or hypertrophied. HCM is often inherited in cats, and there's a test available for a specific gene mutation in Maine Coons and **Ragdolls**.

Purebred cats such as the Persian, other oriental breeds, and American shorthairs are also predisposed to the condition.

However, it's the regular house cat that is most commonly diagnosed with HCM. Cats usually develop the condition when they reach middle age, but it can occur at any age. Symptoms of feline hypertrophic cardiomyopathy vary and depend to some extent on the severity of the disease.

Cats with mild disease don't always have symptoms. But a kitty with significant disease will typically show obvious signs of a problem.

Unfortunately for us, cats are masters at disguising illness, so until the condition is severe, even a very sick cat may have no symptoms, or very mild symptoms that don't seem to be indicative of heart disease. In cats with obvious symptoms, there can be respiratory distress caused by congestive heart failure, or leg paralysis due to a blood clot.

Cats suffering congestive heart failure tend to breathe through an open mouth, and they sometimes pant. You should watch for breathing difficulties during exertion. Some kitties with HCM and congestive heart failure have a hard time walking any distance without stopping to rest.

Treatment of Feline Hypertrophic Cardiomyopathy

There is no cure for HCM, and changes that occur to the heart muscle are permanent. However, if the heart problem developed as a result of another underlying issue, treatment of the primary disease can result in partial or complete resolution of the HCM. Conventional treatment involves the use of diuretics and ACE inhibitors to treat congestive heart failure.

Drugs that claim to reduce the likelihood of blood clots are sometimes used on HCM patients at risk for thromboembolism. These drugs must be closely monitored to prevent hemorrhage, and they provide no guarantees. I prefer to use a natural supplement called nattokinase to reduce the risk of blood clots.

No drugs have proved consistently effective in improving the heart function in HCM patients. And unfortunately, often cats with HCM are not treated until congestive heart failure has developed.

I've successfully treated many cats with this disorder using a combination of high doses of ubiquinol and omega-3 fatty acids, as well as certain amino acids, including taurine, L-arginine, and acetyl L-carnitine. I also use heart glandulars and herbs, including hawthorn.

Because amino acid deficiency (a dietary shortage of meat-based protein) can fuel HCM, I strongly recommend all my patients consume a human-grade, meat-based diet, and eliminate all fillers such as grains and unnecessary carbohydrates that cats don't need in the first place.

I also think we have underestimated the role of vitamin D in companion animal medicine, and its role in heart disease, as well. Identifying and treating vitamin D deficiency is an important step in reducing diet-related cardiovascular stress.

Tips to Help Protect Your Cat's Heart Health

Ask your veterinarian for a proBNP blood test. This test can give you peace of mind that your kitty has no early signs of heart disease. It's a simple blood test with a fast turn-around time that can provide the information you need to proactively manage your cat's heart health.

Help your cat maintain a lean, fit body by feeding a balanced, species-appropriate diet that meets your pet's nutritional requirements for optimal protein levels, healthy fat and coenzyme Q10. I believe the unnecessary carbohydrates found in most processed cat foods offsets the amount of protein cats need, making carbs a significant nutritional contributing factor to feline heart disease.

Additionally, the high temperatures the food is processed at inactivates the delicate fatty acids, so even though the label says it contains the correct amount of essential fatty acids to maintain excellent cardiovascular health, they've been inactivated through the manufacturing process.

The amount of taurine, carnitine and CoQ10 found naturally in unprocessed meat is critically important to feline heart health. These vital nutrients are not found in adequate quantities in most dry foods, and processing further diminishes their bioavailability. This is another reason I recommend starch-free foods (no grains or potatoes) for cats.

If you feed dry or canned food, I recommend you supplement your pet's diet with coenzyme Q10 in the form of ubiquinol, as well as additional marine sources of omega-3 fatty acids (krill oil), especially if you have a cat that may be predisposed to cardiovascular disease.

Supplying your pet with extra CoQ10 (the reduced form) can insure she has the quantity her body needs to maintain a healthy heart muscle.

Sources and References

Pittsburg Post-Gazette December 19, 2015

[1] Journal of the American Veterinary Medical Association, 2004 Aug 1;225(3):384-8

[2] Journal of the American Veterinary Medical Association, 2009 Jn 1;234(11):1398

[3] Journal of Feline Medicine and Surgery, 2011 Apr;13(4):266-71