

Feline Heart Disease

Your veterinarian has just diagnosed your cat with a heart problem. If this is the case for you, it is very likely that, upon physical examination, your cat had a heart murmur, a very fast heart rate, or an abnormal heart rhythm. Heart disease is common in cats but can be difficult to diagnose. One of the reasons for this is that cats are very good at hiding signs of illness, and feline heart disease in its early stages may produce very subtle or no signs.

Diagnosis of Heart Disease in Cats

The following tests are all useful in diagnosing the presence of, as well as type of heart disease, that is present in a cat:

- **Thoracic radiographs (chest X-rays):** Chest X-rays may reveal a change in the size or shape of the heart, an increase in the size of the blood vessels related to the heart, or fluid accumulation in the lung fields or around the heart.
- **Electrocardiogram (EKG or ECG):** This test measures the electrical activity of the heart. It is a useful test if the cat has an abnormal heartbeat (arrhythmia) or if the heart size is abnormal.
- **Echocardiogram (ultrasound of the heart):** This is the definitive test for feline heart disease. An ultrasonic examination of the heart, performed by an experienced veterinary cardiologist with years of training in the specialty, can diagnose the specific heart condition that is present as well as evaluate its degree of severity. The veterinarian performing the test can watch the heart function and measure disturbances in blood flow, valve function, and heart muscle size and contraction.
- **NT-proBNP:** This is a blood test that measures biomarkers indicating heart disease. It can help your veterinarian differentiate whether your cat has a respiratory condition or a heart condition, since the signs can sometimes overlap. The NT-proBNP can also be used to help determine a heart patient's prognosis.
- **Blood pressure measurement:** Cats with heart disease often suffer from hypertension, or high blood pressure, so a cardiac diagnostic work-up usually includes a blood pressure measurement.
- **Hyperthyroidism test:** If a cat's heart rate is increased, a blood test for hyperthyroidism may be ordered, especially if the cat has also lost weight, has an increased appetite and/or the veterinarian can feel an enlarged thyroid gland.
- **Heartworm test:** Cats can be infected with heartworms, and they can cause changes in heart function. A heartworm test may be ordered if an abnormal heart rate or heart murmur is detected.

- **Taurine test:** L-Taurine is an essential amino acid in cats that must be provided in the cat's diet. It is critical to feline heart health as well as other bodily functions. If a cat has been fed a homemade diet or strictly human food and has a heart murmur, the veterinarian may run a taurine test.

Types of Heart Disease in Cats

There are essentially three types of heart diseases that affect cats, and these have different treatments.

- **Hypertrophic cardiomyopathy (HCM)** is the most common form of feline heart disease. It occurs when the heart muscle wall becomes thickened, causing the diameter of the heart chambers to become smaller. The affected muscle is not able to fully relax and allow the heart chamber to fill completely with blood. Therefore, less blood is pumped with every beat, and the heart has to work harder to deliver the necessary supply. A heart murmur can develop as the valves become involved in the disease process. As the cat ages, the heart muscle becomes thicker, and less and less blood can be pumped. Fluid begins to accumulate in the lungs as the heart struggles to keep up.

HCM is seen in young to middle-aged cats and is more common in purebreds such as Ragdolls and Persians. It is also the type of heart disease that is associated with feline hyperthyroidism.

HCM can lead to blood clots (thromboembolisms), which can cause paralysis, pain, and sometimes death.

Although HCM may be treated with a number of drugs, there currently is no evidence that using any of these medications alters the natural history of HCM in cats until they are in heart failure.

- **Diltiazem** blocks calcium channels in the heart muscle and its associated blood vessels. This leads to a more relaxed heart muscle that does not have to work as hard to pump blood.
- **Atenolol** is a beta blocker that relaxes the heart muscle and decreases the heart rate, allowing for easier work for the heart.
- **ACE inhibitors such as enalapril** work to dilate blood vessels, decreasing blood pressure and the workload for the heart.
- **Spirolactone** is sometimes used in cats with HCM prior to heart failure. It is a diuretic that helps remove excess fluid from the body, reducing the workload on the heart. Unlike other diuretics, spironolactone does not also remove potassium from the body.

Once the cat is in heart failure, other medications may be given, including drugs such as Plavix to reduce the risk of blood clots.

The treatment of HCM is rather frustrating and may be disappointing. The exception to this is if the cat's heart disease is secondary to hyperthyroidism. In this case, treatment of the hyperthyroidism may arrest or even reverse the heart condition.

At this point we may turn to herbal supplements as they are gentle, effective and have few side effects.

- **Dilated cardiomyopathy (DCM)** is less common in cats now than it was prior to the mid-1980s. DCM occurs when the heart muscle thins out and the inner chamber enlarges. The heart is not able to pump the blood forward effectively because the muscle is too weak. Fluid accumulates in the lungs and abdomen, resulting in congestive heart failure.

DCM is associated with low taurine levels in the cat's body. Taurine is supplemented in all commercial foods now, so DCM has become relatively uncommon. However, if your cat is on a homemade diet, you need to supplement taurine to prevent this problem.

- **Restrictive cardiomyopathy (RCM)** is the third type of heart disease in cats. It is not common or well-understood. The causes of RCM are not known, and there is no specific treatment. Congestive heart failure, blood clots, and sudden death may all be caused by RCM, and the prognosis for this type of heart disease is poor.

Alternative Therapies for Feline Heart Disease

From a natural standpoint, there are many ways to treat these feline heart problems.

- Traditional Chinese Veterinary Medicine with herbs and acupuncture can be helpful in treating heart disease in cats.
- Chinese herbs such as Dan Shen and Ginkgo may be used, but this requires a diagnosis by a practitioner because each case is different.
- Homeopathy and homotoxicology has been helpful along with conventional medication for those cats that are in heart failure.

- Omega-3 fatty acid supplementation is always a good and safe choice. This must be from a marine source as cats are not able to assimilate flax seed oils.
- Western herbal formulations containing Hawthorn are also a good choice for heart disease and are often used in combination with conventional medication.

Diet options can support cats with heart disease and are also important to consider. There are several commercial choices. If you prefer a homemade diet, we recommend that you have it balanced by a veterinary nutritionist to ensure that no new problems are created.

Early detection of heart problems in cats and natural intervention seem to give the best results.

by Dr. Jan Huntingford - June 23, 2015

<http://www.petwellbeing.com/blog/cats/understanding-feline-heart-disease>