



CLIENT INFORMATION SHEET: Feline Hypertrophic Cardiomyopathy

What is Hypertrophic Cardiomyopathy? Feline Hypertrophic Cardiomyopathy (HCM) is a common heart disease, affecting up to 15% of all cats. HCM causes thickening (hypertrophy) of the left ventricle in the absence of a known cause, such as high blood pressure or an overactive thyroid. HCM is caused by genetic mutations in Maine coon and Ragdoll cats, and genetic causes may also be present in other cats. In HCM, the heart muscle is predisposed to abnormal relaxation and contraction. These abnormalities can lead to atrial enlargement, congestive heart failure (CHF, fluid in the lungs), fainting, and blood clots.

How is HCM diagnosed? Screening for HCM can be challenging. Your veterinarian may recommend further evaluation of any abnormal heart sound by echocardiography (ultrasound of the heart), but many cats with heart murmurs are normal, and many cats with HCM have normal heart sounds. Your veterinarian may also use a blood test called NT-proBNP to assess the need for echocardiography.

The diagnosis of HCM requires accurate echocardiographic measurements to determine the ventricular wall thickness, and to determine the left atrial size. Depending on your cat's age, general health, and echo findings, additional tests may be performed (e.g. blood pressure, thyroid evaluation, chest x-rays, electrocardiogram or genetic testing).

What is the treatment for HCM? The early stages of HCM may not require treatment for years. Your cardiologist will evaluate many factors affecting your cat before making recommendations. Left atrial enlargement and some rhythm disturbances increase the risk of blood clot formation (thromboembolism), and cats with severe left atrial enlargement often take clopidogrel to reduce their clotting risk. Other medications may also be used in the preclinical stages. Cats with HCM, especially those on blood thinners should stay indoors. CHF caused by HCM requires additional medications, often including furosemide, ACE-inhibitors (e.g. enalapril or benazepril) and pimobendan. Some cats require hospitalization to treat heart failure. Some cats can develop fluid outside their lungs within the chest cavity (pleural effusion) that may need to be drained.

How is HCM monitored by my veterinarian and cardiologist? Monitoring a cat with HCM depends on the severity of their disease, and the nature of the cat. Mildly affected cats that are not stressed in the hospital will most commonly be monitored with annual echocardiograms. Cats that have experienced a complication of CHF or thromboembolism are commonly monitored with bloodwork and x-rays every 3-6 months however, the frequency will depend on a variety of patient factors.

How can I tell how my cat is doing at home? Monitoring the breathing rate when your cat is sleeping can help detect early signs of CHF. The rate should be less than 36 breaths per minute when your cat is sleeping, and rates above 40 should prompt evaluation by a veterinarian. A smartphone app called Cardalis simplifies tracking the breathing rate. Blood clots (thromboembolism) cause the sudden and very painful loss of blood flow to the affected area, most commonly the rear limbs. Sudden, painful loss of leg function (paralysis or lameness) should prompt emergency evaluation.

What is the prognosis with HCM? Some cats with HCM will not develop signs of the disease, and live normal lives. Regular monitoring helps detect disease progression that warrants medication. In one study, 20% of cats developed CHF within 5 years of diagnosis, and 9% experienced a blood clot during that time. Once a cat is diagnosed with CHF survival is variable, with an average of about 12 months with medications. Close monitoring and communication with your regular veterinarian and cardiologist provide the best chance possible for your cat to feel good during this time.