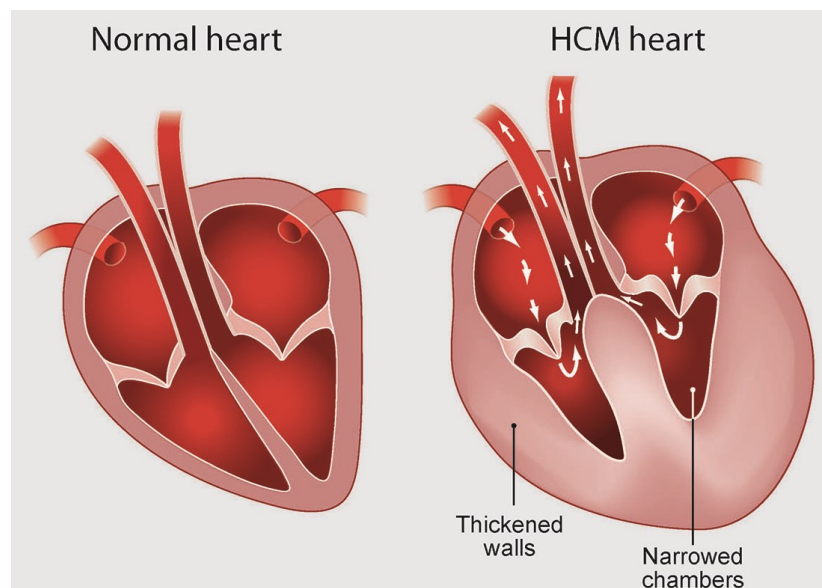


HYPERTROPHIC CARDIOMYOPATHY IN CATS — AN INTRODUCTION

Hypertrophic cardiomyopathy (HCM) is the most common heart disease in cats. It is characterized by abnormal thickening, or hypertrophy, of the heart's left ventricular wall. This thickening can impair the heart's ability to pump blood effectively and may lead to heart failure, arrhythmias, or thromboembolic events such as saddle thrombus.



BREEDS MOST COMMONLY AFFECTED BY HCM

Certain breeds are genetically predisposed to HCM, though it can occur in any cat. Commonly affected breeds include:

- **Maine Coon**
- **Ragdoll**
- **British Shorthair**
- **American Shorthair**
- **Persian**
- **Sphynx**

Maine Coons and Ragdolls have known genetic mutations (MYBPC3 gene) linked to HCM.

DIAGNOSIS OF HCM IN CATS

DCM is diagnosed using a combination of clinical signs, physical exams, and diagnostic tools:

1. **At Home:** You may see increased respiratory rate, weakness, or collapse. Many cats also have a poor appetite.
2. **Physical Exam:** A vet may detect a heart murmur, gallop rhythm, or abnormal lung sounds.
3. **Echocardiography (Ultrasound):** The gold standard for diagnosing HCM. It visualizes heart wall thickness and chamber size.
4. **Electrocardiogram (ECG):** Detects arrhythmias.
5. **Thoracic Radiographs (X-rays):** Assess heart size/shape and lung congestion.
6. **Blood Tests:** Biomarkers like NT-proBNP can indicate heart muscle stress.
7. **Blood Pressure testing:** Because hypertension can worsen your cat's heart function
8. **Thyroid function testing:** Because hyperthyroidism can worsen your cat's heart.
9. **Genetic Testing:** Available for Maine Coons and Ragdolls to detect the MYBPC3 mutation.

RAPAMYCIN — A WAY TO SLOW/STOP THE PROGRESSION OF HCM IN CATS

Rapamycin was proven in the Trivium study (QR code here) to slow or stop the progression of HCM in about 2/3 of cats with HCM. This was a small study of 45 cats with subclinical disease and not every cat responded, but up until now a diagnosis of HCM has been a death sentence.



Rapamycin changes that.

WANT TO LEARN MORE ABOUT RAPAMYCIN FOR YOUR CAT? HERE YOU GO.

In addition to slowing/stopping the progression of HCM, rapamycin...

- REDUCES INFLAMMATION AND PERIODONTAL DISEASE
- FIGHTS MANY FORMS OF CANCER, INCLUDING BREAST CANCER
- IS BEING STUDIED FOR ITS BENEFITS WITH CHRONIC KIDNEY DISEASE



TREATMENT OF CATS WITH HCM

Rapamycin is clearly the best therapy for HCM in cats, as it is the only drug that has been scientifically proven to slow/stop the progression of HCM in a majority of patients.

Other treatments focus on symptom management and preventing complications:

MEDICATIONS:

- **Atenolol:** Reduces blood pressure and heart rate, allowing better filling of the heart chambers and thus increasing the volume of blood pumped. Start dosing at 6.25 mg per cat given twice daily, can increase in 6.25 mg increments (eg, 12.5 mg AM, 6.25 mg PM)
- **Clopidogrel (Plavix):** Reduces the risk of clot formation by decreasing platelet aggregation. Loading dose is 37.5-75 mg per cat, then 18.75 mg per cat given once daily.
- **Baby Aspirin:** May reduce the risk of clot formation, as with Clopidogrel above. Note that baby aspirin can create severe GI ulceration in cats, and that Clopidogrel has been proven superior in anti-clotting benefits. Typical dosing is 5-10 mg per cat orally every 2-3 days.
- **Pimobendan:** Enhances cardiac contractility and vasodilation, though its use in HCM is debated. Typical dosing is 1.25 mg per cat given twice daily.
- **Amlodipine:** Used to control high blood pressure, thus reducing cardiac workload. Dosing usually starts at 0.625 mg/cat, then recheck BP in 3 weeks; can double dose if inadequate response. Max dose typically 2.5 mg/cat
- **Benazepril (an ACE inhibitor):** Reduces blood pressure and workload on the heart. It also is used in kidney disease once protein is detected in the urine. Dosing is typically 0.5 mg/kg given every 12 hours.
- **Furosemide (a diuretic):** Reduces fluid buildup in lungs (pulmonary edema) due to heart failure. Typical dosing is 2.2-5.5 mg/kg orally 1-2x daily.

SUPPORTIVE CARE:

- **Monitoring respiratory rate at home:** Check out the Cardalis and Pet Breath Counter apps
- **Oxygen therapy** in emergencies.
- **Thoracocentesis** to drain fluid from the chest cavity if needed during heart failure. This involves inserting a large bore needle into your cat's chest.

MONITORING OF CATS WITH HCM

Most HCM cats should be closely monitored, both at home and by your vet.

AT HOME:

- Appetite and activity levels
- Respiratory rate (again, check out Cardalis and Pet Breath Counter apps)

VETERINARY CARE:

- Comprehensive dental care, including anesthesia and x-rays of every tooth once yearly until anesthetic risks become worrisome.
- Cardiac echo exams every 6 mo
- Pro BNP blood tests generally correlate well with echo exams, and so if echo exams are not practical for you then consider simple rechecks of BNP every 4-6 mo
- Chest radiographs at least once a year
- Lab tests (Complete Blood Count, Chemistry Panel, Thyroid, Urinalysis) at least once a year

PROGNOSIS FOR CATS WITH HCM

In general, the prognosis for HCM in cats varies widely depending on the severity of the disease and the presence of complications like heart failure or thromboembolism.

- **Mild HCM:** Some cats live many years with little to no symptoms.
- **Moderate to Severe HCM:** Life expectancy may be 1–3 years.
- **Thromboembolic Complications:** Significantly worsens prognosis, with many cats having a poor quality of life.
- **Congestive Heart Failure:** May shorten survival time to months

There is clear scientific evidence that rapamycin improves the prognosis of HCM in cats,

Let me know how we at www.HelpingPetsLiveLonger.com can help you. We are all in this together.

Best wishes, Dr. Kevin