

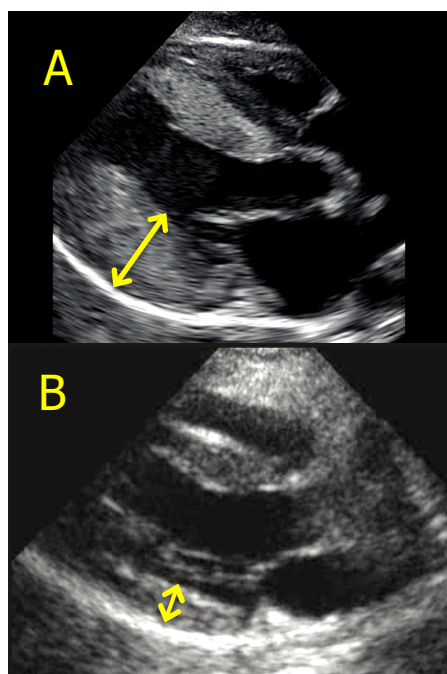
Hypertrophic Cardiomyopathy

Hypertrophic Cardiomyopathy (HCM) is a common heart muscle condition that can occur in cats of all ages. Males are affected more commonly than females, and certain breeds of cats such as Maine Coon and Ragdoll are also known to be predisposed. HCM leads to spontaneous thickening of the walls of the primary pumping chamber of the heart, the left ventricle. Occasionally the right ventricle is affected as well. As the heart walls thicken it becomes more difficult for the heart to relax and fill normally with each heart beat. The inability of the heart walls to relax properly can cause the pressures inside the heart to become abnormally elevated. In advanced cases, these changes can lead to enlargement of one of the upper chambers of the heart (the left atrium), cardiac arrhythmias (irregular heart beats) and congestive heart failure (CHF). Cats who develop CHF due to HCM accumulate fluid inside the lungs or around the lungs. This results in labored or rapid breathing, open-mouth breathing, lethargy, and hiding behaviors. Cats with HCM that have developed enlargement of the left atrium (one of the upper chambers of the heart) are also at risk for developing blood clots within that chamber. These blood clots can break free and travel to the legs where they may obstruct blood flow and lead to unexplained limping or paralysis of one or more legs. This is known as an arterial thromboembolism (ATE).

HCM progresses differently in every cat. Some HCM patients have a normal lifespan without ever developing clinical signs of their disease. Other HCM patients can progress rapidly and go on to develop CHF or have an ATE episode. These patients must be treated by a veterinarian immediately and will need to remain on medications for the rest of their life. Cats that are diagnosed with HCM prior to the development of any outward symptoms may or may not be started on medication based on the results of their cardiac evaluation.

The diagnosis of HCM must be based on the results of an echocardiogram (cardiac ultrasound). The echocardiogram may be recommended by a veterinarian after they find that a cat has a heart murmur, abnormal heart sounds called “gallop” sounds, or irregular heart beats. In other cases, a cardiac blood test called the NT-proBNP test may have been elevated and suggestive of heart disease. The echocardiogram allows the cardiologist to measure the thickness of the heart walls, look for evidence of heart enlargement, identify leaking heart valves, and screen for blood clots. In addition, the pumping function and relaxation function of the heart are assessed. All of this information is used to identify the proper diagnosis, gauge the severity of the disease, predict the prognosis, and help direct the treatment plan.

Middle aged and older cats that are found to have thickening of the heart walls must be screened for two other conditions before they can be definitively diagnosed with HCM. The first condition is hyperthyroidism (overactive thyroid) and the second is hypertension (high blood pressure). Both of these conditions can lead to thickened heart walls that are not related to HCM and can be reversible if properly treated.



A: HCM heart with severe thickening of the free wall of the left ventricle (arrow).
B: Normal cat heart.