Penny

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Breed: Ragdoll
Microchip number: 900215005373934
Birth date: 2023-04-15

Test date: 2023-08-18
ID kit: FTDNVLH

Health conditions known in the breed

Hypertrophic Cardiomyopathy (Discovered in the Ragdoll)	Gene	Risk Variant	Copies	Inheritance	Result
	MYBPC	C>T	0	AD	**Clear**

Information about the genetic condition

Hypertrophic Cardiomyopathy (HCM) is the most common cardiac disease in cats worldwide. The disorder is characterized by an increase in wall thickness of the left ventricle and the interventricular septum. This causes turbulence in blood flow and increased venous pressure in the left atrium and lungs, which may or may not coincide with a cardiac murmur upon auscultation. The clinical signs most commonly noted with the disease are respiratory signs associated with congestive heart failure such as tachypnea, exercise intolerance and panting, difficulty breathing, and (rarely) coughing. Thromboembolism may also occur and affected cats have an increased risk of sudden cardiac death. Clinical and echocardiographic signs classically appear after the cat has reached breeding age, as the most common age of diagnosis for HCM is five to seven years. Specifically in Ragdoll cats, however, the disease has an early onset with an average age of diagnosis being only fifteen months. In the Ragdoll, a point mutation (R820W) in the MYBPC3 gene has been found as causative for the disease. Cats with two copies of the mutation (homozygotes) have earlier onset and increased severity of the disease compared to those with only one copy of the mutation (heterozygotes). The mode of inheritance is autosomal dominant with incomplete penetrance.

Breeder recommendation