



A

B1

B2

C

D

← The length of each stage tends to shorten as the disease progresses →

At Risk
for Developing
Cardiomyopathy



Staging guides clinical management. Not every cat progresses through all stages.

Murmur,
Gallop Sound,
Arrhythmia,
Abnormal
NT-proBNP

Echocardiographic
Left Atrial
Enlargement**

THRESHOLD TO
START MEDICATION

Respiratory
Signs,
CHF

Recurrent
CHF or
Refractory
Clinical Signs



- Screening echocardiogram for predisposed breeds
- Genetic tests available for some breeds
- Client education
- Annual auscultation
- Consider annual **NT-proBNP** and echocardiographic screening

- Echocardiogram to diagnose cardiomyopathy and assess left atrial size
- Blood pressure for at-risk cats*
- Resting serum thyroxine concentration (cats ≥ 6 years)*
- **ECG** if arrhythmias are detected at Stages B1, B2, C, or D
- Treat systemic hypertension and/or hyperthyroidism if present
- Annual re-evaluation to monitor for disease progression

- **Diagnostics**
- **Medications**
- **Management**

ACE, angiotensin-converting enzyme; **ATE**, arterial thromboembolism; **CHF**, congestive heart failure; **ECG**, electrocardiogram; **LA**, left atrium; **LA:Ao**, left atrium-to-aortic root ratio; **NT-proBNP**, N-terminal pro B-type natriuretic peptide; **POCUS**, point-of-care ultrasound.

*Patients ≥ 6 years should have serum thyroxine and blood pressure monitored annually at every stage.

Long-axis **LA diameter ≥ 20 mm or short-axis **LA:Ao** ≥ 1.8 or evidence of poor **LA** function.

- Echocardiogram
- Blood pressure
- Baseline thoracic radiographs
- Laboratory screening (complete blood count, chemistry, urinalysis, thyroid assessment)
- Thromboprophylaxis therapy is recommended for Stages B2, C, and D (e.g., clopidogrel, rivaroxaban)
- Monitor sleeping respiratory rate
- Client education regarding clinical signs of **ATE** and **CHF**

- Thoracic **POCUS**, radiographs, and/or **NT-proBNP** assessment may help differentiate causes of respiratory distress, including **CHF**
- Echocardiogram
- Blood pressure
- Labwork, including thyroid status
- Thoracocentesis if needed, with fluid analysis
- Acute **CHF**: Oxygen, furosemide, anxiolysis, and thoracocentesis if needed
- Chronic **CHF**: Furosemide, $\pm$ **ACE** inhibitor and spironolactone if tolerated
- Thromboprophylaxis
- Treat arrhythmias as necessary
- Monitor sleeping respiratory rate (daily)
- Consultation with a cardiologist is recommended
- Sodium-reduced diet ideal, but calorie intake should be prioritized

- **POCUS**
- Radiographs
- Echocardiogram
- Labwork, including thyroid status** reassessment
- Blood pressure
- Furosemide $\uparrow$ (or torsemide)
- Pimobendan
- $\pm$ **ACE** inhibitor and spironolactone if tolerated
- Thromboprophylaxis
- Periodic thoracocentesis may be necessary
- Treat arrhythmias as necessary
- Consultation with a cardiologist is strongly recommended
- Appetite stimulants may be useful
- Discuss quality of life with owner