



Understanding Congestive Heart Failure

What is Congestive Heart Failure?

Congestive heart failure (CHF) is a clinical syndrome that describes the end result of severe heart disease. Heart disease is always present when CHF is present; however, heart disease can be present and never lead to congestive heart failure.

CHF occurs when the heart is no longer able to pump out the volume of blood it receives effectively. This causes fluid to accumulate in the body, usually in the chest cavity (pleural effusion), within the lung tissue itself (pulmonary edema) or in the belly (ascites). By definition, this fluid accumulation is congestive heart failure (CHF). While fluid in the belly can be tolerated for some time, fluid in or around the lungs usually causes the animal to have difficulty breathing and requires immediate medical attention. Fluid around the lungs and in the belly can be removed using a needle when it causes comfort or affects an animal's ability to breathe.

What is the difference between right and left-sided congestive heart failure?

The terms right and left-sided refer to the part of the heart that is primarily affected, and may present differently.

Left -sided CHF –

Most commonly results in **pulmonary edema** (fluid accumulation within the lungs)

Common clinical signs include:

- Increased respiratory rate or difficulty breathing
- Coughing
- Exercise intolerance
- Fainting

Right-sided CHF –

Most commonly results in **ascites** (fluid accumulation within the abdomen) or **pleural effusion** (fluid accumulation around the lungs)

Common clinical signs include:

- Abdominal distention
- Increased respiratory rate or difficulty breathing
- Exercise intolerance

□ Fainting

What are the goals of treatment?

The primary goal of CHF therapy is managing the clinical signs and decreasing the work load on the heart. This is achieved by alleviating fluid accumulation, improving heart function, suppressing arrhythmias, and in cats reducing the risk of blood clot formation. A variety of therapies are available and will be tailored to meet your pet's current needs. The most commonly prescribed medications include diuretics such as lasix, ACE inhibitors and pimobendan. Different medications may also be prescribed depending on your pet's underlying heart disease and severity of the heart failure. A limited sodium diet may also be recommended along with restricted exercise. Please keep in mind that heart failure therapy is dynamic and will require regular checkups with your veterinarian to ensure your pet's needs are being met. Please see your discharge instructions for information specific to your pet.

Dogs versus cats?

The principles of treating CHF in dogs and cats is similar, as lasix and ACE inhibitors are used in nearly all cases. However there are a few notable differences between species. The majority of dogs with CHF will be put on a drug called Pimobendan which increases contractility. While used in select cats, in general this drug is not indicated in feline cardiomyopathy. Another notable difference is the use of anti-coagulants, or drugs that decrease the risk of blood clots. While the majority of cats will be put on these medications, it is very uncommon that dogs form blood clots secondary to heart disease.

What to watch for at home?

Breathing rate: In an effort to catch recurrences of CHF early, is important to become familiar with your pet's normal resting breathing rate and effort at home. When your pet is at rest, watch his/her sides rise and fall as he/she breathes normally. One rise and fall cycle is equal to one breath. Count the number of breaths he/she takes in 6 seconds, then multiply this number by 10 to get total breaths per minute. For example, if you count 3 breaths in 6 seconds, that is equal to 30 (3×10) breaths per minute. A normal cat or dog at rest should have a respiratory rate less than 40. If you notice this number increasing consistently, or notice an increase in the effort it takes to breathe, please contact a veterinarian. It may be helpful to keep a daily log of your pet's breathing rate so that you will notice increases or changes from normal breathing.

General: Monitor for any lethargy, collapse, exercise intolerance, coughing or decreased appetite. Contact a veterinarian if you notice any of these changes.

Prognosis?

Unfortunately, no drugs have proven effective in either preventing or slowing down progression of heart disease in animals. Should heart disease progress to CHF, the prognosis is poor with an average survival time of 6-12 months. However, most animals are able to be managed with medications and can enjoy a good quality of life during that period of time.

Thank you for visiting the cardiology service at the Ryan Veterinary Hospital. If you have any further questions, please do not hesitate to contact us.