

# Congestive Heart Failure in Cats

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### How does my cat's heart work?

Your heart, your cat's heart, all hearts, regardless of their size are basically muscular pumps that function to provide continual flow of adequate amounts of oxygenated blood and nutrition to every tissue in the body (the heart itself included) and then to return carbon dioxide-laden blood back to the lungs to exchange the carbon dioxide for oxygen. Then the cycle repeats — over and over again every moment of every day.

The demands on the heart vary naturally based on activity level and the amount of oxygen in the environment. More exertion, more carbon dioxide, or less oxygen and the heart has to beat faster to accomplish its goal. Internal issues also affect the heart's productivity. If there is more resistance to the forward flow of blood (from narrowing or blockage of blood vessels, or increased blood pressure) then the heart has to work harder. Likewise if there is backward movement of blood due to leaky heart valves then the heart has to work harder. Thickened heart walls leave less space inside the ventricle(s) for blood to accumulate so less blood will be pumped with the next beat. Conversely, if the heart muscle walls become too stretched and thin then they can't effectively push all the stored blood forward.

It is an intricate and involved series of mechanisms that have to work properly for peak efficiency. Anything less and the system begins to fail. Congestive heart failure is the result. When this happens, the blood that should be moving into the heart backs up like traffic on a freeway. This increased pressure first manifests in the vessels of the lungs resulting in the leakage and accumulation of fluid in the lung tissues (pulmonary edema) or outside of the lungs in the chest cavity (pleural effusion). This makes it harder for your cat to breathe and affects the overall exchange of oxygen into the blood circulation and thus the health and vitality of all organ systems.

## Symptoms of congestive heart failure in cats

Early on you may notice that your cat's respiratory rate (how many breaths he takes each minute) is increasing. If you took his heart rate (even by just feeling his heart beating through his chest), that would be faster too, even at rest. He may be tired more, less active, and might even cough (though coughing in cats is most often due to lung disease rather than heart disease). Since he can either breathe or swallow, but not both at exactly the same time, you might appreciate that he is eating and drinking less.

In a previous post on [Healthy Senior Cats and Heart Disease](#), I talked about all of the diagnostic tests that your veterinarian will want to do to fully evaluate a cat for heart disease. These are all even more important if your cat begins to show signs of congestive heart failure because they will serve as the basis for choosing, dosing and monitoring response to various medical options for treating your cat's disease. Depending on those tests, your veterinarian may recommend:

- Diet change to a lower salt diet
- Diuretics to reduce fluid accumulation
- Blood Pressure medication to decrease resistance to forward flow of blood
- Beta blockers to improve heart function and control heart rate and rhythm
- Positive inotropes which give the heart muscle added strength so that it can pump with more force
- Anti-arrhythmic drugs if your cat has an irregular heart beat

Your veterinarian will need to evaluate your cat's blood work in order to adjust drug doses, and may recommend a schedule of recheck appointments and tell you what to watch for to monitor your cat's condition at home in order to keep him happy and comfortable.

*If you have any questions or concerns, you should always visit or call your veterinarian -- they are your best resource to ensure the health and well-being of your pets.*