

**Cardiovascular Disorders**

CONGESTIVE HEART FAILURE (CHF) IN DOGS



Heart failure refers to the clinical signs—such as fluid accumulation in the lungs or abdomen—that occur when the heart can no longer adequately compensate for changes associated with the heart disease.

Once a dog develops congestive heart failure, nutrition recommendations based on guidelines from the American College of Veterinary Internal Medicine (ACVIM), cardiology research, and dietary history, can help manage heart health.

Key Messages**Nutritional recommendations for dogs with CHF include:**

- Moderate sodium restriction, considering clinical signs and patient response, can help control edema and congestion.¹⁻³
 - Excessive sodium restriction can cause adverse effects including excessive activation of the renin-angiotensin-aldosterone system.
 - Diets with less salt are often less palatable, and maintaining appetite and lean body mass is important.
- Supplementing with omega-3 fatty acids (e.g., DHA and EPA) may help reduce inflammatory mediators and oxidative stress, stabilize cardiac arrhythmias, reduce blood pressure, and reduce cardiac remodeling. Omega-3s may also help prevent cachexia, the muscle wasting that often occurs in dogs with CHF.⁴⁻⁶
- Monitor potassium and magnesium levels.
 - Cardiac medications may cause excesses or deficiencies of potassium.
 - Magnesium has many roles in healthy heart function, including antiarrhythmic and antioxidant actions, and hypomagnesemia has been linked with increased risk of heart failure in human patients.⁷
- Maintain protein and calorie intake to avoid weight loss.¹
- Antioxidants, such as vitamins C and E, can help prevent damage from reactive oxygen species, shown to be increased in dogs with CHF.^{8,9}

DID YOU KNOW?

Sodium from dog treats or table food used to give pet medications can add up: 1 slice of cheddar cheese has ~180 mg sodium; 1 slice of white bread has ~100 mg sodium; 1 tablespoon of regular smooth peanut butter has ~70 mg sodium.

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Key Messages (continued)

A detailed dietary history is important in dogs with CHF.

- High-sodium foods and treats, or small amounts of human food, can unintentionally add excessive sodium to a dog's diet.¹⁰

Supplementing taurine and/or carnitine may help improve left ventricle size and function in some dog breeds that are predisposed to heart failure caused by dilated cardiomyopathy (DCM).¹¹⁻¹³

- L-carnitine myocardial deficiency has been linked with DCM in Boxers and Doberman Pinschers.^{11,12}
- American Cocker Spaniels and Golden Retrievers may be predisposed to taurine deficiencies.^{14,15}

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