



## Animal Specialty Hospital of Florida

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### Dietary Management in Patients with Congestive Heart Failure:

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An often neglected component of the management of any patient with an illness is diet modification. Generally speaking, patients at high risk for or those with a history of congestive heart failure should be on at least a *moderately* sodium (salt) restricted diet. This means that the diet should contain no more than 100 mg of sodium per 100 gram dry weight. **Most senior or geriatric-formulated dog foods meet this criterion.** There are prescription diets available that are moderate to *severely* sodium-restricted (i.e. less than 50 mg sodium per 100 gram dry weight). By limiting the dietary intake of sodium, we can help control the fluid retention that occurs with congestive heart failure. This becomes more of an issue the longer a patient lives with congestive heart failure. Many “end-stage” patients on multiple diuretics require quite strict sodium intake control. It is important, however, to keep in mind that patients that are ill may have a poor appetite, and sodium-restricted diets tend to be less palatable. This is especially true for cats. Sometimes it is more important to keep animals with a poor appetite eating – *whatever* they are willing to eat – than it is to focus on exactly what they are eating. Home-cooked meals can be useful. Owners should be aware not to add sodium to whatever it is they are preparing. Ingredients such as chicken or beef stock/broth, which tend to have large amounts of sodium, should be avoided.

### **PRESCRIPTION DIETS:**

Many sodium-restricted diets for dogs and cats are available by prescription from your regular veterinarian. Depending on the presence or absence of other concurrent problems, some may be better for a particular patient than others, and consultation with your regular veterinarian and/or a board-certified veterinary internal medicine specialist or cardiologist is advised. The list below (from Plumb's Veterinary Drug Handbook, 6<sup>th</sup> Ed., Donald C. Plumb, Blackwell Publishing, © 2008) is ordered by the most to least amount of dietary sodium:

Canine Prescription Diet	Sodium (mg/100 kcal)
Modified Formula (Royal Canin/IVD) canned	83
Early Cardiac Support (Eukanuba/IVD) dry	61
g/d (Hill's/Science Diet) canned	59
g/d (Hill's/Science Diet) dry	52
Hepatic LS 14 (Royal Canin/IVD) dry	47
Advanced Protection Senior 7+ (Hill's/Science Diet) dry	43
Early Cardiac EC 22 (Royal Canin/IVD) dry	43
Modified formula (Royal Canin/IVD) dry	33
h/d (Hill's/Science Diet) canned	23
Renal MP (Royal Canin/IVD) dry	22
CV (Purina) canned	20
Renal LP (Royal Canin/IVD) dry	18

h/d (Hill's/Science Diet) dry	17
Renal LP (Royal Canin/IVD) canned	15
Feline Prescription Diet	
	Sodium (mg/100 kcal)
g/d (Hill's/Science Diet) dry	77
g/d (Hill's/Science Diet) canned	76
k/d (Hill's/Science Diet) canned	70
k/d chicken (Hill's/Science Diet) canned	68
k/d (Hill's/Science Diet) dry	58
Modified Formula (Royal Canin/IVD) dry	49
Modified Formula (Royal Canin/IVD) canned	47
l/d (Hill's/Science Diet) canned	43
CV Formula (Purina) canned	40
Renal LP (Royal Canin/IVD) dry	35

Patients eating severely salt-restricted diets should probably have some supplemental protein, such as plain boiled chicken or beef. Diets with very low sodium content may not contain adequate amounts of protein. Many patients with severe, end-stage congestive heart failure, especially right-sided heart failure, will develop chronic muscle wasting secondary to cardiac cachexia. These patients essentially develop poor nutrient absorption from their gastrointestinal tracts due to chronic congestion from heart failure.

#### **HOMEMADE DIETS:**

Sometimes cooking for the patient at home is warranted if they are unwilling to eat regular food. Generally, plain boiled chicken or beef with plain white rice or pasta is okay on a short-term basis for patients with congestive heart failure. This is especially the case if the patient is having gastrointestinal upset and/or diarrhea. Hill's does have a homemade canine recipe for a sodium-restricted diet (approximately 50 mg of sodium per 100 gram dry weight) and it is listed below:

- ¼ lb. ground round or other lean beef
- 2 cups cooked white rice without salt
- 1 tablespoon vegetable oil
- 2 t (9 grams) dicalcium phosphate (Drug and health food store, substitute bone meal)
- balanced vitamin/mineral supplement

Cook beef in skillet, retaining fat, stirring until lightly browned. Add remaining ingredients and mix well. Keep covered in refrigerator. Yields 1 lb. Feed a sufficient amount to maintain body weight.

Body Weight (lb)	Approximate Daily Feeding (lb)
5	1/3
10	1/2
20	1
40	1 3/4
60	2 1/3
80	2 3/4
100	3 1/3

It is important to emphasize that we should strive to keep our pets with congestive heart failure eating. Many patients are on multiple medications, and if they don't eat and/or drink enough to compensate, they may become dehydrated and ill. Sometimes treats are okay, but in patients with end-stage disease, we typically need to avoid treats. Most commercially available dog treats are LOADED with sodium and should be avoided. Look for LOW SALT treats. Cats frequently become quite picky eaters, especially if they are otherwise ill. In many cases, prescription low-sodium diets are not always realistic for these patients, and just keeping them eating anything may be a challenge.