

Kindness and Care for Animals®

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MSPCA-Angell offers the following recipe for the average 15 lb adult dog with no medical problems as a possible option to concerned pet owners. This recipe is balanced for long term feeding when fed according to instructions.

Homemade diet formulation:

We recommend the use of a dietary gram scale to weigh out these foods until you become familiar with the approximate volumes of each. Food scales can be purchased from local grocery and large discount stores. All items should be blended together to prevent your pet from picking out single food items. A nutritionally balanced homemade food could result in an imbalanced intake of nutrients if ingredients are allowed to separate and the animal does not consume the entire food mixture.

These are cooked weights and amounts of each food ingredient per day for a 15 lb (ideal weight) adult dog. Final cooked weights do vary in water content and cooking times; however, weighing these ingredients is more accurate than measuring by volume.

<u>Item</u>	grams	common measures
Main food ingredients to be mixed together:		
Protein source: Chicken, dark meat cooked	80	3 wt-oz
Carbohydrate source: Rice, white, cooked	190	1 1/3 cups
Fiber source: Mixed vegetables	15	1 Tbsp
Fat source: Vegetable oil	5 to 10	1 to 2 tsp
Supplements to be mixed in the food:		
Balance IT Canine	6	1.5 black scoops
TOTAL	300	-

A 15 lb dog's daily energy requirement is estimated at 443 kcal and this diet contains about 1.51 kcal per gram as fed, therefore the dog should eat about 300 grams of this diet daily. We calculate the initial food dose using a generic dog equation, however, for any individual dog this generic equation can be off by \pm 50%. If you think your dog requires more or less food, simply feed more or less in total adjusting (\pm 25%) the amount for proper weight and condition. Please weigh the dog weekly while eating this diet.



Main ingredients:

a. Protein, carbohydrate and fat:

The protein source may be substituted with most any type of meat (beef, pork, lamb), poultry (chicken or turkey) or eggs in the same portions. The carbohydrate source may be any cooked grain you have (rice (white or brown), sweet potato, pasta, oatmeal, barley, corn, peas) for variety. It is by this method you provide variety of taste, flavor and consistency without changing the nutrient profile. We suggest the meat and grain portions of the diet be cooked to increase digestibility and food safety. A source of fat in the diet of pets is desirable in moderation for flavor, calories and the fatty acid linoleic. I suggest not adding fat to the diet unless the dog begins to lose weight on this recipe. If losing weight, add 1 tsp of vegetable oil such as (corn, safflower or olive) to the food daily and reweigh the dog in 2 weeks.

b. Fiber:

A source of fiber in the diet is also desirable for intestinal health and I have made a specific quantity suggestion. Mixed (green, yellow and red) vegetables such as green beans, broccoli, baby spinach, carrots, bell peppers and squashes contribute water and/or indigestible fiber and possibly other antioxidant nutrients thought to be beneficial. The vegetable mix used in this recipe, for example, is one part raw carrots, one part raw green beans and one part raw broccoli florets. The total concentration of protein, fat, vitamins and minerals in these food types is low. These foods should not comprise more than 10% of total intake because they dilute the other nutrients in the diet. Adding these types of vegetables and fruits is more "filling" than nutritive but can be fed once the full daily nutrient intake as been consumed. After washing, they make great treats fed raw or cooked but should not be relied upon to provide substantial amounts of nutrients. Remember it is not safe to feed onions or garlic (cooked or raw), chocolate or grapes/raisins to your dog.

Supplements:

Supplements to this diet are not optional! Supplements help complete the nutritional balance by adding macro- and micro-minerals, vitamins and in some cases, amino acids. Adding supplements to homemade diets for dogs can be difficult; hence I strongly suggest you obtain the only supplement designed specifically for canine homemade diets. You may obtain the Balance IT® supplement either from your veterinarian or directly from the company (DVM Consulting) using our code. These products are sold only to or through a registered veterinarian or nutritionist. Your veterinarian may easily register with the company (DVM Consulting) to purchase these supplements at http://www.balanceit.com.

If you wish, as a result of this consult, you may purchase this supplement directly from the DVM Consulting web site at http://www.balanceit.com using our code. Click on products, then under Balance IT® Canine (black cap and scoop inside), click on buy. You may use this code [E15-AX2MSM45267800] which references this consultation to purchase the supplement. The appropriate scoop is provided with each bottle. If you cannot reach DVM Consulting by the internet, you may call them directly at 1.888.346.6362, M-F 9 am to 4 pm PST/PDT. The web site currently does not accommodate purchases from outside the US, you may call them directly 1.530.756.3862 to place your order.



Storage instructions:

This diet may be made in multi-day batches; however, the food must be kept in the refrigerator between meals. Homemade diets generally lack preservatives and antioxidants so the food must be stored in small quantities at cold temperatures ($32 - 40^{\circ}$ F or -4° C) and in larger quantities at freezing temperatures (0° F or -20° C). Homemade diets contain 70% moisture or more, and without a preservative system, are highly susceptible to bacterial, fungal and mold growth when left at room temperatures for more than a few hours.

Heating instructions:

Warmed food is more palatable than cold food and homemade diets are more palatable when wetted and slightly warmed before feeding. After re-warming cold food mixtures in a microwave oven, the food should be mixed well and carefully checked for "hot spots" that could burn the pet's mouth. Homemade diets are more like a canned food than a dry kibble and may be rejected by a pet that favors a dry food. You may try baking the mixture at 325-350°F (210-230°C) for approximately 20-30 minutes to make a dry or crunchy food or treat.

Monitoring instructions:

Homemade diets are quite variable in their nutritional profile depending on the ingredients used and the method of preparation. A nutritional review is recommended twice a year. If your pet is eating a homemade diet exclusively for longer than 6 months, we recommend you keep a 3 or 5-day diet history, and send that information back to us for re-evaluation, particularly if substitutions have been made to our original recipe. This computer formulated homemade diet does meet the current recommended nutrient minimums while not exceeding the known maximums for your pet. However, your diet has never been analyzed for actual nutrient content, nor has it been tested in animals, as is done for an AAFCO feeding trial approved, commercially prepared, pet food.

Veterinary instructions:

A veterinarian should examine your pet regularly (2-3 visits/yr), while eating exclusively a homemade diet, and please inform your veterinarian that your pet is eating a homemade diet. There are no additional tests to recommend while your pet is on a homemade diet because there are no accurate "tests" of nutritional status. Your veterinarian may perform a few routine overall evaluations of red and white blood cells, serum proteins and electrolytes as part of an annual checkup. These tests are only very broad overall indications of nutritional status and not specific to any nutrient intake. The best overall indication of nutritional health is your pet's body weight, activity level, normal skin and eyes, more specifically, the lens and retina.

We have formulated this homemade diet to be approximately 25% protein, 15% fat and 5% fiber with 0.8% calcium and 0.7% phosphorous on a dry matter basis. You may make the appropriate substitutions as suggested to provide a variety in the diet but keep the ingredients within the recommended proportions to preserve the desired nutrient profile. Please remember this is a generic recipe designed for the average 15 lb adult dog with no medical problems. Please make appropriate adjustments to the total amount fed if your dog does not weigh 15 lbs.



Due to the large pet food recall and ASPCA's recommendation to seek nutritional advice when feeding a homemade diet, we have received a high volume of calls for homemade diets for normal healthy dogs. MSPCA-Angell Nutrition Service specializes in formulating diets for dogs with specific medical conditions and these requests will remain our first priority. If you would like a consult specifically for your dog taking into account the age, weight, body condition, activity and medical conditions, please contact us directly at 617-522-7282 (7 am to 11 pm EDT) and speak with a Client Service Representative about scheduling a Nutrition Consult either by phone or appointment.

Thank you,

R. Remillard

Rebecca L. Remillard, Ph.D., D.V.M., DACVN Veterinary Nutritionist MSPCA-Angell Boston

Additional notes for Homemade Diets

- 1. Animal ingredients (meat and eggs) should be cooked for at least 10 minutes at 180°F (82°C).
- 2. Vegetable ingredients should be at least washed or rinse, and cooked if increased digestibility is desired.
- 3. Often the food mixture will separate and dry out with time. We recommend you keep the food in airtight containers and mix it well before each feeding. You must, on a daily basis, be aware of color and odor changes, which may indicate spoilage or deterioration.
- 4. Conversions:

Weight Measures:

1 teaspoon = 5 grams	1 tablespoon = 15 grams	1 cup = 250 grams
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1 wt-oz = 28 grams 1 pound = 454 grams

Volume measures:

dash = 1/8 teaspoon	pinch = 1/16 teaspoon	smidgen = 1/32 teaspoon
3 teaspoons = 1 tablespoon	1 tablespoon = $\frac{1}{2}$ fluid ounce	1 teaspoon = 5 milliliters
4 tablespoons = $\frac{1}{4}$ cup	1 cup = 8 fluid ounces	1 tablespoon = 15 milliliters
$5 \frac{1}{3} $ tablespoons = $\frac{1}{3}$ cup	$1 \text{ cup} = \frac{1}{2} \text{ pint}$	1 cup = 240 milliliters
8 tablespoons = $\frac{1}{2}$ cup	2 cups = 1 pint	1 quart = 1 liter
10 2/3 tablespoons = 2/3 cup	4 cups = 1 quart	

 $10 \ 2/3 \ \text{tablespoons} = 2/3 \ \text{cup}$ $4 \ \text{cups} = 1 \ \text{quart}$ $12 \ \text{tablespoons} = \frac{3}{4} \ \text{cup}$ $2 \ \text{pints} = 1 \ \text{quart}$ $16 \ \text{tablespoons} = 1 \ \text{cup}$ $4 \ \text{quarts} = 1 \ \text{gallon}$

Metric conversions: US units = UK & Australian units 1/8 teaspoon = 0.5 ml 1/4 teaspoon = 1 ml

1/8 teaspoon = 0.5 ml	1/4 teaspoon = 1 ml	$\frac{1}{2}$ teaspoon = 2 ml
1 teaspoon = 5 ml	$1 ext{ tablespoon} = 1 ext{ tablespoon}$	
$\frac{1}{4} \text{ cup} = 60 \text{ ml}$	1/3 cup = 90 ml	$\frac{1}{2}$ cup = 120 ml
2/3 cup = 150 ml	$\frac{3}{4} \text{ cup} = 180 \text{ ml}$	1 cup = 240 ml
$1 \frac{1}{4} cup = 1 cup$	2 cups = 1 pint	1 quart = 1 liter

- 5. General guidelines for converting pre-cooked to final cooked measures:
 - a. Meat looses about 30% in water weight when cooked, so start with about 1/3 more than desired for final cooked weight.
 - b. Rice and other dry grain products:
 - i. 1 cup of dry pre-cooked rice weighs about 200 grams whereas 1 cup of cooked rice weighs about 150 grams.
 - ii. 100 g of dry rice cooks out to be about 300 grams
 - iii. 1 cup of dry rice cooks out to be about 4 cups

- c. Potatoes and other starch vegetables have precooked weights about equal to final cooked weights, so 100 grams of potato as purchased raw cooks out to be about 100 gram boiled mashed.
- d. Fibrous, high water vegetables (carrots, broccoli, green beans) have precooked weights also about equal to the final cooked weights.
- e. The edible portion of chicken eggs: one jumbo = 64 g one large egg = 50 g one medium egg = 44 g one small egg = 37 g
- f. You can check other food measures at the USDA web site http://www.nal.usda.gov/fnic/foodcomp/search/
- 6. If there is a history of food rejection or gastro-intestinal upset with food changes, introduction of any new <u>commercial</u> foods should be done using a slow, deliberate feeding schedule.

Schedule	Old food	New food
Day 1, 2, 3	75%	25%
Day 4, 5, 6	50%	50%
Day 7, 8, 9	25%	75%
Day 10	0%	100%

If building a <u>new homemade diet</u>, feed the meat and grain source tolerated by the pet for 3-6 days, then add the fat (if prescribed) for another 3 days, then add the vegetables (if prescribed) the next 3 days, and if all is tolerated then add in the supplement. It is by this method you will build a balanced diet tolerated by the pet.

At the first sign of food intolerance; such as vomiting, diarrhea, decreased appetite, weight loss or food rejection; offer old food and seek veterinary attention if clinical signs continue for more than 24 hrs or become serious.

Consults/HM diet notes - dogs