

Note to readers: This E-book is best consumed with companion E-books:

- Home-Prepared Diets for Dogs, Part One: Introduction to Home Prepared Diets
- Home-Prepared Diets for Dogs, Part Two: Raw Diets
- Home-Prepared Diets for Dogs, Part Four: Finer Points of Home-Prepared Diets

## Home Cooking

### Details on proportion, nutritional value and variety in cooked, home-prepared dog foods.

by Mary Straus

Those of us who feed our dogs a raw diet that includes bones believe that this is the healthiest, most natural diet dogs can eat. But not everyone is comfortable feeding such a diet to their dogs. You may worry about bacteria or parasites in raw meat, or about feeding your dog bones, or you may have a dog who doesn't enjoy or do well on a raw dog food diet.

If you prefer to feed your dog a cooked diet, or a diet that includes raw meat but no bones, that's fine. Your dog will still benefit from a variety of fresh foods in proper proportions, regardless of how they're prepared. For simplicity's sake, these diets are often referred to as cooked diets, but the meat portion may be fed raw if you choose.

Cooked diets that do not include bone are a little more difficult in terms of making sure that all of your dog's nutritional needs are met. We can supply the calcium that bones provide from other sources, but it is hard to know exactly which other nutrients present in fresh bone might be missing in a bone-free homemade diet.

In addition, cooking destroys or reduces

certain nutrients, such as vitamins C and E and taurine. Cooking in water also leaches out minerals, though this can be resolved by feeding the water the food was cooked in. Light cooking at lower temperatures has less effect on nutrient value than cooking foods until they are well done.

While dogs (particularly adult dogs) can survive on a wide variety of diets, this article will give you guidelines for optimal nutrition, to help your dogs live the longest, healthiest lives possible.

#### Review: three basic rules

As discussed in the companion E book, Home Prepared Diets for Dogs: Raw Diets, the three most important rules of home-prepared diets apply to cooked diets, too:

*Variety:* A homemade diet must include a variety of different foods, not just meat and grains. It's best to feed many different types of meat (beef, lamb, pork, chicken, turkey, fish, etc.), as well as other foods such as organs, eggs, yogurt, and healthy leftovers.

Most people who feed cooked diets also feed grains or starchy veggies. If you do, make sure that meat and other animal products make up at least half the diet, and preferably more. Remember that dogs do not require carbohydrates, and they do not supply as much nutrition to dogs as animal products do.

*Balance over time:* When you feed a wide variety of different foods, there is no need to make each meal "complete and balanced." Think of how you eat yourself, and how you feed your children, providing different foods at different meals and on different days. Make sure your dog gets everything he needs over a week or two, not at every meal.

*Calcium:* One of the most common mistakes that people make when feeding a home-cooked diet is the failure to add calcium. You must add calcium when you feed a diet that does not include bones.

Adult dogs need around 800 to 1,000 mg of calcium per pound of food fed. They also require the calcium to be supplied in a proper proportion to phosphorus.

The ideal calcium: phosphorus ratio in the

canine diet is between 1:1 and 2:1. Meat contains a lot of phosphorus, so the more meat a diet contains, the more calcium will be required to reach the correct calcium:phosphorus ratio. Adding 800 to 1,000 mg of calcium will provide the correct calcium:phosphorus ratio even for a high-meat diet, unless you use a calcium supplement that also contains phosphorus. In that case, moderately higher amounts of calcium may be needed to balance out the additional phosphorus contained in the supplement.

Ground eggshell can be used as a calcium supplement. Rinse eggshells and dry them on a counter overnight, or in the oven, then grind them in a clean coffee grinder. One large eggshell provides one teaspoon of ground eggshell, which contains 2,000 mg of calcium, so add ½ teaspoon ground eggshell per pound of food fed. Don't use eggshells that haven't been ground to powder, as they may not be absorbed as well.

You can use other types of calcium supplements (any form of calcium is fine). Calcium from seaweed, such as Animal Essentials' Natural Calcium, also supplies other minerals (including magnesium, iodine, and selenium) that are beneficial.

Bone meal is frequently used as a source of calcium in diets that don't include raw bone. However, bone meal contains calcium and phosphorus. Different brands of bone meal supplements contain different amounts of calcium and phosphorus, but the calcium:phosphorus ratio is always the same: 2:1. To balance a canine diet that contains lots of phosphorus, then, such as one that contains mostly meat, you will need to give an amount of bone meal that will provide 1,000 to 1,200 mg calcium per pound of food to keep the ideal calcium:phosphorus ratio in the diet correct.

Look for bone meal supplements that are guaranteed to be free of lead and other contaminants. You can also use a purified bone extract called Microcrystalline Hydroxyapatite (MCHA), but most of these supplements also contain vitamin D in high amounts, which would not be appropriate to use (see supplements section further on in the text).

Another option is to use a supplement designed specifically to balance a limited diet, including supplying the proper amount of

calcium. Wysong's Call of the Wild supplement is meant to balance an all-meat diet that does not include bone. Call of the Wild derives some of its value from whole foods. Balance IT is another supplement created to balance a limited, incomplete homemade diet.

One last option is to use a dog food pre-mix to which you add meat, eggs, dairy, and other healthy foods. These pre-mixes will include calcium and other nutrients to balance out the fresh foods that you add.

If you feed meat with ground bone, there is no need to add calcium.

When you use supplements or pre-mixes designed to balance a limited diet, you should restrict the amount of liver you feed to no more than half the amount recommended below, due to high levels of vitamin A. Also, do not add cod liver oil (or other source of vitamin D) or kelp (due to the risk of excess iodine, which can interfere with thyroid function), unless the pre-mix instructs you to do so.

Remember that you should never feed cooked whole bones, unless they have been cooked into mush in a pressure cooker or by boiling for many hours. (This will only work with some chicken bones; other bones remain too hard no matter how long you cook them, though you can add some vinegar to the water to help leach out some of the calcium into the food.)

You can cook meat-based foods that contain ground bone, but this is not ideal. Cooking food that contains a large amount of ground bone can lead to constipation or even impaction. That's why cooking ground-up necks, backs, wings, etc. – or commercial blends that contain ground bone – is inadvisable. Either feed this ground food raw, or add in an equal amount of meat (without bone) to lower the percentage of bone in the mix.

Again, when bones are fed, you don't need to add calcium to the diet.

### **Types of foods, proportions**

When feeding a homemade diet, it is essential that different types of foods be fed in appropriate proportions. Meat, eggs, dairy, and other animal products should make up at least half of the diet, and preferably more. The diet needs to include organ meats as well as muscle meat.

Liver and kidney should make up about 5

percent of the total diet. It's best to feed small amounts daily or every other day, rather than large amounts at one time. Because these organs are so nutrient-dense, use the raw weight to determine the amount to feed.

For example, if you feed a total of 20 ounces of food daily, use 1 to 2 ounces of raw liver/kidney, even though the cooked weight will be less. If possible, make heart (nutritionally, more of a muscle meat) another 5 to 10 percent of the diet, or even more, though too much may lead to loose stools in some dogs.

Eggs are an excellent source of nutrition. They can be soft-boiled, hard-boiled, gently scrambled, etc., or fed raw, if your dog likes them that way. You can feed as many eggs as you want, as long as you still feed lots of variety.

Dairy products, such as yogurt, kefir, and cottage cheese, are well tolerated by most dogs and offer good nutritional value. Yogurt and kefir have the added advantage of providing beneficial bacteria (probiotics). These products should be added after the food is cooked. Goat's milk may be tolerated by dogs who have problems with cow's milk.

Muscle meat from a variety of sources such as beef, lamb, pork, chicken, and turkey should make up most of the rest of the diet. It can be fed ground or in chunks. You can also feed canned fish, such as jack mackerel, pink salmon, and sardines, once or twice a week. (There is no need to add calcium to those meals since the bones are included.)

Vegetables are optional, but provide many benefits. Leafy greens are among the healthiest veggies to feed; other good veggies include broccoli, cauliflower, brussels sprouts, bok choy, cabbage, turnips, rutabaga, celery, cucumber, bell peppers, zucchini and other summer squashes, carrots, and more. Spinach and swiss chard can be fed in limited amounts.

These veggies provide few calories, so I usually advise adding them on top of the amount of food you feed, rather than calculating them as a percentage of the diet.

Steaming is the best way to cook vegetables, as it removes fewer nutrients than boiling. You can add the water used to steam or boil veggies to the meal, as it will contain the minerals that were leached out during cooking (add leftover

meat drippings, gravy, soups, sauces, etc., to make a savory broth). Some vegetables may cause gas if fed to your dog in large portions.

Grains, legumes (beans), and starchy vegetables (such as potatoes, sweet potatoes and winter squashes) are usually included in cooked diets, but remember that dogs do not require carbohydrates in their diet, and plants supply incomplete proteins for dogs. If you do feed them, it's best if they're a small percentage of the diet, around one quarter or less. At a maximum, carbohydrates should never make up more than half the diet, with the other half coming from animal sources.

Grains that can be fed to dogs include white rice, brown rice, oatmeal, barley, amaranth, quinoa, and bulgur. Just as with other foods, feeding a variety of different grains and carbs is better than always feeding the same kind. Remember that grains contribute to weight gain and sometimes other health problems. If your dog is overweight or suffers from allergies, arthritis, seizures, urinary incontinence, IBD, or other digestive disorders, you may want to try feeding a diet without grains or starchy carbs to see if your dog improves.

Fruits can be added to the diet in small amounts. Overripe fruits are easier to digest. Don't feed grapes or raisins, which cause kidney



Karen Engman's freezer contains a few days' worth of home-prepared meals, ingredients bought in bulk for future meals, and commercial frozen raw diets. As she gains confidence, Engman may transition all of her dogs to a homemade raw diet.

damage to some dogs if too many are eaten. Good fruits to feed include apples, bananas, papayas, mangoes, berries, and melon.

Remember that you can also include healthy leftovers (foods you would eat yourself) from your own meals in the diet you feed your dog.

### Putting it together

While meals can be prepared individually, you may find it easier to cook up large batches at one time, and then divide the food into meal-sized portions and freeze. Because variety is important over time and not necessary at every meal, you can feed the same foods for a week or two, and then switch to something else when you make the next batch.

It's best to add most supplements at the time of feeding, rather than mixing them in ahead of time, since many vitamins and other nutrients are affected by freezing or by exposure to light or air. The probiotics found in yogurt and kefir will also not survive the freezing process.

You can add herbs and spices if your dog likes them, but not onions, which can cause anemia in dogs. The small amounts in leftovers shouldn't be a problem.

### Amounts to feed

One of the first questions that comes up when anyone wants to switch to a homemade diet is, how much should I feed? There are guidelines that can help you figure out a starting amount, but remember that each dog is an individual. The amount of food needed by each dog will vary considerably depending on his activity level and metabolism, and such factors as the amount of fat in the diet. Keep a close eye on your dog's weight whenever you switch diets and adjust the amounts you feed up or down as needed, increasing or decreasing no more than 10 percent at a time.

It's healthier for dogs of all ages to be lean rather than plump. If you have a dog who is relatively inactive, or tends to gain weight easily, you can reduce the amount of fat in the diet by removing skin and visible fat from poultry, and by feeding leaner meats and low-fat dairy products. For dogs that need a very low-fat diet due to chronic pancreatitis or fat intolerance, boiling meat will remove most of the fat.

As a general rule, dogs will eat around 2 to 3 percent of their body weight in fresh food daily (use cooked weights for foods that are cooked). Large dogs will tend to eat a lower percentage and small dogs a higher percentage of their body weights. Toy breeds may need as much as 4 to 5 percent of their body weight daily, while giant breeds might eat as little as 1 ½ percent, or even less.

I start with around 2 pounds of food a day for a 100-pound dog (2 percent of their body weight), 1 to 1 ½ pounds of food for a 50-pound dog (2 to 3 percent of body weight), ½ to ¾ of a pound (8 to 12 ounces) of food for a 25-pound dog (2 to 3 percent of body weight), and 5 to 6 ½ ounces of food for a 10-pound dog (3 to 4 percent of body weight). When making your calculations, remember that ounces are not the same as tenths – 1.5 pounds is not 21 ounces (1 pound 5 ounces), it is 24 ounces (1.5 x 16).

If you feed two meals a day, divide the total amount in half for each meal. If you know your dog is very active, tends to be on the thin side, or eats more now than would be expected for his age and size, then start with higher amounts and feed fattier foods. If you have a couch potato, or a dog who is overweight or gains weight easily, start with less and feed lower-fat foods. Again, watch your dog's weight closely, using a scale if possible, and adjust as needed.

Note that leafy green veggies supply few calories, so don't count them in when calculating the amount of food to feed, but add them on top of the rest of the diet. If you have a dog who is overweight and likes veggies, this is one way to increase the amount of food that she can have without causing weight gain.

The fat content of the diet will affect the amount you feed. Most dogs should have a moderate amount of fat in their diet, which means limiting meats that are really high in fat, such as 75 percent lean ground beef and some ground lamb and pork products. When feeding poultry (e.g., chicken, turkey, duck), remove visible globs of fat, and maybe some of the skin as well, particularly if your dog isn't very active.

If you find you need to feed less than the amounts recommended above to keep your dog at a healthy weight, try reducing the amount of fat, so that he can have more food in order to

get the nutrients that he needs (but don't feed a really low-fat diet, as that will cause your dog to feel hungry all the time).

On the other hand, if you find yourself having to feed more than would be expected for your dog's size, you can increase the amount of fat. Working dogs and those who are very active and have trouble keeping weight on will benefit from a higher-fat diet. Keep in mind that dogs do not have problems with high cholesterol, so that is not a concern if you need to feed a high-fat diet.

Grains and starchy carbs can also affect weight. Dogs who have trouble maintaining their weight on a normal amount of food may benefit from added carbohydrates, while reducing them can help those who need to lose weight.

### **Making the switch**

Most dogs have little problem switching to a home-cooked diet. If your dog is prone to digestive problems, you may want to make the change gradually. Add just one new ingredient at a time and wait a few days to see how your dog does before adding something else new, gradually increasing the amount of new food and decreasing the amount of the old.

If you add a lot of new ingredients at one time and your dog develops problems, it's harder to tell what the cause might be. If your dog vomits or has diarrhea, return to his prior diet and make the change more carefully once his digestive system is back to normal. That may include feeding the new food separately from the old (at least a few hours in between meals), and feeding only one new food at a time, to see if your dog reacts to any of the new ingredients.

### **Supplements**

The choice of whether or not to add supplements is an individual one. Healthy dogs fed a wide variety of fresh foods in appropriate proportions should have no need of supplements, though they may still benefit from them. The less variety you feed, the more necessary supplements become. Cooked diets are more likely to need supplementation, since cooking destroys or reduces some nutrients. Dogs with health problems may also benefit from certain supplements regardless of their diet.

The most important supplement is fish

body oil (not liver oil), such as salmon oil or EPA oil. This supplies omega-3 fatty acids, which provide a variety of benefits and are hard to find in any diet, whether homemade or commercial. The recommended dosage for healthy dogs is around 1 gram (1,000 mg) of fish oil per 20 to 30 pounds of body weight (dogs with certain health problems may benefit from higher doses).

When fed in doses high enough to supply the recommended amount of EPA and DHA, fish liver oil would contribute too much vitamin D. Restrict the amount of fish liver oil you feed your dog so that it does not contribute more than 100 IUs of vitamin D daily for a small dog (400 IUs daily for a large dog). Do not add cod liver oil or other sources of vitamin D to any commercial diet, as most are already high in vitamin D.

Note that flaxseed oil and carmelina oil are not good choices to replace fish oil, as the form of omega-3 fatty acids found in plant oils (alpha linolenic acid, or ALA) must be converted in the body to the forms that dogs can utilize (EPA and DHA). At best, dogs probably convert 15 percent of ALA to EPA and DHA; at worst, none of it. Fish, grass-fed meats, and eggs are also good sources of omega-3 fatty acids.

Whenever you add oils of any kind, you need to supplement with vitamin E, or the body will become depleted of this vitamin over time. Give around 100 IUs to a small dog (under 25 lbs), 200 IUs to a medium-sized dog (25 to 60 lbs), and 400 IUs to a large dog (more than 60 lbs), anywhere from daily to once a week.

Minerals are tricky to supplement, as they can be dangerous at excessive levels, or if they are not balanced properly with other minerals. For example, zinc binds with copper, so if you give a supplement that includes zinc but not copper in proper proportions (10:1), eventually this can lead to a copper deficiency.

Minerals are most safely supplemented in whole food form. Green blends that contain foods such as kelp, spirulina, Irish moss, fenugreek seed, and alfalfa are an excellent source of trace minerals. (Note that it is important not to give too much kelp, as it is high in iodine and too much can suppress the thyroid.) It's best to give kelp in very small amounts — ¼ teaspoon or less for a large dog.

Organic apple cider vinegar, nutritional or

brewer's yeast, and dark molasses also supply trace minerals. Other fresh food supplements that may provide benefits include raw honey, ginger (especially good for digestion), and fresh crushed garlic (no more than 1 small clove per 20 pounds of body weight daily; more can cause anemia).

You may want to add probiotics, especially if your dog is stressed or ill, has been treated with antibiotics, or has had diarrhea. Supplements with multiple strains of beneficial bacteria are preferable to plain acidophilus. Digestive enzymes are also helpful for some dogs with gastrointestinal problems.

### **Puppies**

The nutritional requirements of puppies vary from those of adults, and deficiencies (or excesses) are more likely to cause harm. Puppies need more protein, fat, calcium, and phosphorus than adult dogs do, but too much calcium can lead to serious orthopedic problems. This is especially true for young (prior to puberty), large-breed puppies. These increased needs continue as long as your puppy is growing, and are highest during periods of peak growth.

The exact amount of calcium that puppies require is a matter of endless debate among nutritionists. I'll outline the most prominent recommendations, and suggest an approach that should result in your home-prepared diet falling into the middle of these ranges.

The 2006 National Research Council (NRC) guidelines recommend that puppies receive 3 grams (3,000 mg) of calcium per 1,000 kcals, which is four times its recommended amount for adult dogs. The minimum requirement was changed to 2,000 mg/1,000 kcals from its 1985 minimum of 1,600 mg/1,000 kcals.

The nutrient guidelines published by the Association of American Feed Control Officials (AAFCO) express the recommended amount in a different way, suggesting that puppy diets include between 1.0 and 2.5 percent calcium on a dry matter (DM) basis.

Some nutritional research suggests that large-breed puppies have optimal skeletal development and mineralization when fed a diet that contains between 0.8 and 1.0 percent calcium (DM), as long as the diet uses high biological value protein (from animal products)

that provides 420 kcals per 100 grams of food. The percentage of calcium needed increases when caloric density is increased (higher-fat diets), so that the total amount of calcium per calorie remains the same. The percentage of calcium needed also increases when more grains are fed, since the phytates in grains bind calcium.

Studies have shown that skeletal abnormalities and lameness can result in large-breed puppies fed more than 2.6 percent calcium (DM), or more than 6,500 mg calcium per 1,000 kcals. Minimum amounts are less well-defined, but problems may occur when diets contain less than 0.6 percent calcium (DM). The amount of vitamin D in the diet will also have an effect, since it increases the absorption of calcium. Small-breed puppies can tolerate a much wider range of calcium than large-breed puppies without developing problems.

Here's my suggestion: If you add an amount of bone meal that provides between 1,000 and 2,000 mg of calcium per pound of food fed (not counting any low-calorie veggies), this should provide adequate but not excessive calcium. If you cook the meat, use the cooked weight to determine how much calcium to add.

The higher amount of calcium in that range (2,000 mg per pound of food) will meet both NRC and AAFCO guidelines, providing between 2,000 and 4,000 mg of calcium/1,000 kcals and 1.6 to 2.0 percent calcium DM based on the diet recommendations I've given. The lower amount (1,000 mg per pound of food) will provide between 0.8 and 1.0 percent calcium, which some feel is most appropriate for large breed puppies. This is lower than NRC and AAFCO minimums, but not low enough to cause deficiencies. Remember, you need to add more calcium per pound of food fed if you use a high-fat or high-grain diet.

Because puppies also need more phosphorus than adult dogs, I suggest using bone meal for a calcium source, rather than a calcium-only supplement. (Again, bone meal contains calcium and phosphorus in a ratio of 2:1.)

If your dog's diet provides calcium in amounts that fall at the low end of the ranges suggested by experts, it's advisable to supplement the diet with vitamin D, which enhances calcium uptake. (Don't use calcium supplements that contain vitamin D, though, as the amounts will be too high). If you

want to do your own calculations, you can analyze the diet you're feeding using a nutrition analyzer.

Remember that if you feed a diet that includes ground bone in appropriate amounts, there is no need to add additional calcium or phosphorus, as bone supplies both minerals in the right proportions. (Isn't nature wonderful?)

Puppies also require more protein than adult dogs. Remember that there is no danger in feeding high-protein diets to puppies. The best thing you can do for large- and giant-breed puppies is to keep them lean and slow-growing by limiting the total amount fed, not by limiting the percentage of protein in the diet.

Most puppies will do well on a diet that has a moderately high amount of fat. Puppies need more fat than adult dogs, but too much can lead to rapid growth (if they get too many calories), or limit nutrition (if you have to feed less than the normal amount to control growth). If you have a very active puppy who eats more than would be expected for his age and size, then you can increase the amount of fat in his diet. Don't feed a low-fat diet to a puppy.

Figuring out how much to feed a puppy will depend on the pup's age as well as current weight and anticipated adult weight. Puppies eat much more for their weight than adult dogs do, and young puppies eat more for their weight than older puppies do. That's one of the reasons why it's important to feed younger puppies three to four meals a day.

The amount fed to puppies should gradually increase from a little over half of the appropriate adult serving (when the puppy is very young) to close to the adult ration (for older puppies). Here's what that would translate into based on percentage of current weight:

- 1/4 grown: 4.5 to 6.5 percent of current body weight (55 percent of adult diet)
- 1/2 grown: 3.5 to 5.25 percent of current body weight (88 percent of adult diet)
- 3/4 grown: 2.75 to 4 percent of current body weight (100+ percent of adult diet)

- Fully grown: 2 to 3 percent of their body weight daily (100 percent of adult diet)

Small-breed puppies reach their adult weights more quickly than large breeds do. A small-breed puppy will eat as much as an adult by the time she's around three months old. A large-breed puppy will eat as much as an adult by the time she's around 5 months old. In both cases, they'll eat a little over half that amount at 8 weeks of age. Small breeds will eat a higher percentage of their body weight daily than will larger breeds.

Keep in mind that the appetite of puppies is notoriously varied – they eat more when they're in a growth spurt and less when they're dealing with hormones and teething – so it's important to pay attention to the individual dog and adjust as needed. It's best for puppies to be lean, not chubby, especially the large breeds; keeping them lean will decrease the likelihood of hip dysplasia and other orthopedic problems developing. Adjust the amount of food as needed to keep your puppy at the proper weight, with ribs easily felt and not covered in fat.

### The rewards

Feeding a cooked diet takes time and may cost more than feeding packaged foods (though it's possible to keep costs down by shopping sales and ethnic markets, and buying food in bulk), but the rewards are many. Dogs fed properly prepared homemade meals are usually healthier than dogs on commercial kibbled or canned diets, and you may find your vet bills are reduced. There is much joy in watching our dogs eat fresh, healthy meals we have prepared ourselves, knowing the quality of the ingredients and the value they provide, as well as the obvious enjoyment our dogs get from their food.

Carol Morgan of Mauldin, South Carolina, expressed the feeling very well. "I home cook for my two dogs, both Australian Shepherds," says Morgan. "Six-year-old Rowdy gets 100 percent home-cooked, and eight-year-old Tillie gets kibble supplemented with home-cooked. Both dogs also get some raw fruits. Getting started was a very big undertaking; I spent a lot of time on the Internet and reading books while designing their

diets. When my vet next saw my dogs, she called everyone into the office to see them because of the obvious improvement in their health. I will never go back to 100 percent commercial dog food again.”

## Home Prepared Dog Food: The Real World

### Sample diets from people who prepare a homemade, cooked diet for their dogs.

by Mary Straus

In companion E Books we've provided rules and guidelines for feeding a homemade dog food diet, but getting started can still seem overwhelming. The pet food recalls of past years have left many people wanting to switch their dogs quickly to a homemade diet, at least short-term. Despite their fears about commercial pet food products, however, many have hesitated to start feeding a home-prepared diet, concerned that their diet would be less than perfect.

Our advice? Don't worry about achieving the ideal diet from day one. Adult dogs will do fine on a limited diet for two or three months. If you want to continue to feed a homemade diet for longer than that, or if you are feeding a puppy, it becomes more important to ensure that you are feeding a wide variety of different foods in appropriate proportions to meet all nutritional needs. As you become more experienced with shopping for and preparing your dog's food, and especially as you observe your dog's response to his new diet, you can improve and adjust your recipes as necessary.

#### Pet Food Recall fears spurs switch

Karen Engman, of Murrieta, California, has four Boston Terriers and one Pug, ranging in age from 5 to 12 years old. She decided to switch her dogs to a home-cooked diet due to fears about the recalls. Below, she describes her protocol in detail:

I began feeding my dogs a home-cooked diet a few weeks ago, after reading a number of diet-related books and websites and joining a dog nutrition list. My dogs weigh about 25 pounds each, so I feed them each 10 ounces of food (2.5 percent of their body weight) daily divided into two meals. Each day's ration consists of the following:

75 to 80 percent animal protein (7½ to 8 oz), consisting of 5½ to 6 oz meat (beef, chicken, turkey, canned salmon, or sardines) and 2 oz yogurt, cottage cheese, kefir, or one egg

5 to 10 percent organ meat, consisting of ½ to 1 oz kidney or liver

15 percent veggies, consisting of 1½ oz broccoli, spinach, cauliflower, sweet potato, zucchini, carrots, dark leafy greens, and/or cabbage

I also give the following supplements to each dog daily:

1 fish oil softgel (EPA 180/DHA 120)

¼ tsp Berte's Immune Blend, ½ tsp Berte's Ultra Probiotics, and ½ tablet Berte's Zyme (digestive enzymes) with each meal

500 mg calcium (¼ tsp dried, ground eggshell). Note that I do not add calcium when feeding canned fish with bones.

I cook, mix, and freeze one to two weeks' worth of meat, organ meat, and veggies; I add dairy and supplements right before feeding. I purée the veggies in a food processor, and stay away from white potatoes, tomatoes, eggplant, and peppers, as my older girl has arthritis. I have elected to feed no grains or legumes.



When I make up the food, I cook the meat first, then purée the veggies, and then prepare the organ meat (my dogs will not eat raw liver, so I now braise the liver and then purée it in the food processor).

I bought a number of 9½-ounce and 14-ounce stackable plastic containers. I put a container on my kitchen scale and start measuring in the different portions of meat, organs, and veggies until it totals eight ounces. Most meals will fit in the 9½-ounce containers, but occasionally I use the larger ones for the bulkier chopped-meat meals. Each container has one day's food for each dog, which I feed half in the morning and half at night. I store food for two days in the fridge and pop the rest in the freezer.

I buy fresh meat (chicken, turkey, beef) and canned salmon at Costco. I buy veggies at Costco as well, usually splitting whatever I get between the dogs and the humans in the house, so one unexpected benefit is that we are eating a greater variety and quantity of vegetables than we have in the past. I get organ meat from my local Stater Brothers, which has a wonderful butcher department. I've had trouble finding kidney, so I'm just feeding 5 percent liver right now.

Two dogs had some problems with the diet change, despite my doing a slow transition. One developed loose stools for a few days, but is now doing fine on 100 percent home cooked. The other has always had a sensitive stomach and has had problems with regurgitation. She is still on half kibble/half home cooked while I try to figure out what part of the new diet is not agreeing with her.

In the short time I've been doing this, I've noticed less gas and firmer stools, and my oldest girl's skin seems less flaky (she has had dry, flaky skin since she came into rescue last August). They all love the new food (other than the raw liver!) and "dance" for their dinner now. It really is not that difficult; in fact, once I figured it all out and went through the process of doing it, I thought it was too easy and that I must be doing something wrong!

#### *Our comments on Engman's diet:*

Probiotics and digestive enzymes may help prevent digestive problems when switching diets. Probiotics are also helpful for dogs who have been on antibiotics, or have had diarrhea. It's not necessary to continue to give digestive enzymes unless your dog does better with them added. It's better to split the calcium dosage and give half with each meal rather than giving it all at once.

#### **Cooking food for big dogs**

Brenda and Joe Carriere, of Minneapolis, Minnesota, have been cooking for their two German Shepherds, eight-year-old Sarge and two-year-old Nikki, for about a month due to the recall. Brenda describes her preparations:

I feed a diet that includes both grains and legumes. Here is my basic recipe:

3 lbs meat (ground turkey, beef, or pork; chicken thighs; or jack mackerel and sardines)

6 eggs (scrambled)

1 or 2 cups whole milk cottage cheese or yogurt

6 ounces organ meat (beef liver, pork kidney, chicken hearts, etc.)

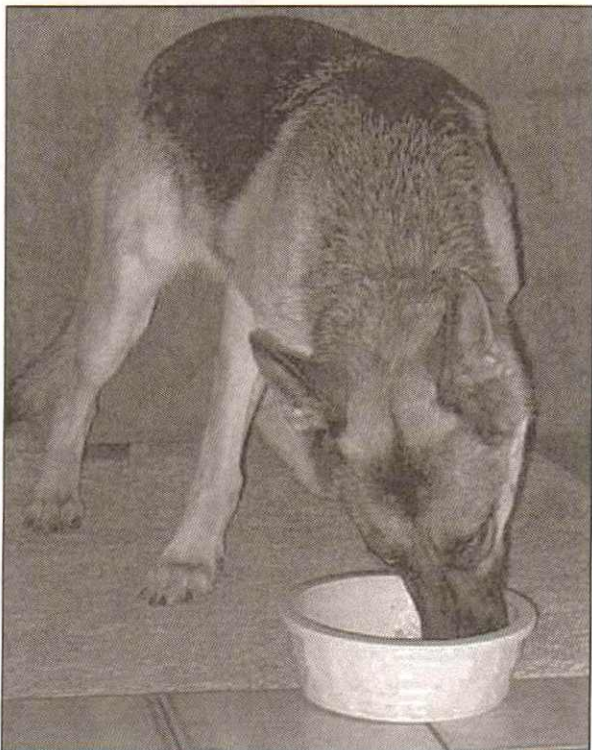
2 cups cooked brown rice plus 2 cups veggies (carrots, sweet potatoes, yams, broccoli, peas, spinach, etc.), OR 4 cups legumes (2 cups each green beans and either lentils or pinto beans)

I cook everything separately, on the stove or, in case of the chicken thighs, on the grill. After the thighs are cooked, I take the meat off and throw away the bones. I steam the veggies or cook the sweet potato in the microwave.

I prepare food a few times a week, usually in batches of two or three days, then portion them individually for each dog and store them in the fridge. Everything is mixed together and ready to be served. I feed each dog one and a half to two cups twice a day. I microwave it for 30 seconds to take off the chill, and then add supplements at mealtime.

I give each dog 1,000 mg fish oil and 400 IU vitamin E daily, as well as one teaspoon organic apple cider vinegar. When not feeding canned fish, I add one teaspoon crushed eggshell daily. They occasionally get fruit, such as bananas, strawberries, pineapple, and mangos, in addition to their regular diet. They also get recreational femur bones two or three times a week, and I estimate that at least 10 percent of their calories come from training treats, usually chicken or cheese.

We plan to continue home cooking (there may be a dog coup d'état in my house if we go back!). Even in this short time, Sarge's coat has become glossy with no more dandruff, and he no longer scratches and nibbles at himself. He has also lost a few pounds, something we weren't able to accomplish while on kibble because he always seemed hungry. Nikki has become enthusiastic about meals, while before I had to coax her to eat. Both dogs love their new diet:



When two-year-old Nikki was fed a kibble diet, she was picky and unenthusiastic about her meals. Today, on home-prepared fare, she dives right in with gusto!

every time we go to the fridge or microwave something, they are right there, waiting expectantly for their new food.

*Comments:*

Legumes combined with grains provide more complete protein than either does alone, so it is better to feed them together, rather than alternating them between meals.

**Using a pressure cooker and including bones**

Dee Davidson, of Redondo Beach, California, began feeding her 16-month-old, 61-pound Labradoodle a home-cooked diet in early March.

I'm using a pressure cooker for the bony meals and regular pots for the other meat meals. I feed two meals a day, one of meaty bones and one of meat, organs, eggs, dairy, etc. I've also started giving my dog a raw meaty bone three days a week to help keep her teeth clean.

I pressure-cook whole chickens, turkey drums, or wings, or meaty pork necks for about an hour, which results in most of the bones becoming crumbly soft. The large turkey leg and wing bones may still be firm in the center, so I crumble the ends and scoop out the marrow of the firm ones, throwing the rest away. I throw out the part of the pork neck bones that are not soft enough to crumble as well. I also cook other meaty beef or pork bones in the pressure cooker, but most of the bones aren't soft enough to crumble and feed, so I throw out the bones and feed the meat with a half a teaspoon of ground eggshells.

I usually add a cup of either brown rice or barley, along with a can of green beans, a couple of carrots, and leftovers of any other vegetables, plus two chopped cloves of garlic, to the pressure-cooker.

I cook other kinds of meat in a regular pot, including any large cuts of meat, such as those intended for pot roasts, or tongue, heart, and ground meats. I lightly braise liver and boil kidney. Vegetables may be added if the cooking is going to be long enough to make them digestible.

I add a couple of tablespoons of cottage cheese, plain yogurt, or grated cheese four days a week to either her meaty meal, or as an evening snack. I feed one egg scrambled with spinach and

cheese four days a week as part of the meaty meal.

I'm giving her about a can of salmon weekly. I give her small amounts in several meaty meals because larger amounts seem to cause a bit of loose stool.

After cooking and cooling, I put the cooked food in 8-ounce portions into sandwich bags. I keep four or five in the refrigerator and put the remainder in the freezer. I have an average-size refrigerator/freezer, but so far this has worked satisfactorily.

I hope this helps someone who is just starting and feels overwhelmed with the process. It's very easy. With the exception of breads, crackers, and desserts, I'm feeding my dog almost exactly what I feed myself.

My dog loves this new diet. She knows all the signs and sounds of her food being prepared and does her "perfect doggie" routine so I won't find any excuse to delay feeding her! After three months on the new diet, I took her to a new vet last week and his first comments were, "I've seen other Labradoodles, but she definitely looks the best of them all. She's in perfect health."

#### *Comments:*

Remember that when you feed cooked bones, they must be completely soft, and you must be sure there is plenty of meat or other foods added, as otherwise the cooked bone can cause constipation or even impaction.

#### **Cooking for a puppy and an adult dog**

Pam Richard, of Portsmouth, New Hampshire, cooks a diet for her two Eurasiers: two-year-old Ruq and five-month-old Tika. She's been cooking for her older dog for about a year and a half, after losing a dog to gastrointestinal cancer and starting to wonder if nutrition might have been a factor. She was hesitant to feed her puppy a homemade diet, but when the recalls started, she decided to jump in:

The "big dog" (55 pounds) gets about 9 ounces of protein per meal (this varies between chicken, turkey, beef, pork, eggs, and fish, mixed with liver and/or kidney), plus calcium (¼ teaspoon ground eggshell). She gets a vitamin (Thorne Basic Canine Nutrients) and salmon oil with both meals. In the morning, I give her one

spoonful each of canned tripe and yogurt with the protein. In the evenings, I add about 3 ounces of veggie mix: sweet potato or carrot, various "above ground" veggies, and herbs (alternating between mint, parsley, and dill). I recently stopped adding grains on a regular basis but previously used brown rice, oatmeal, and pearly barley.

The puppy gets three meals a day, of 6 ounces each. I am slowly adding the same variety of protein sources, along with tripe and yogurt one meal, a tablespoon or so of the veggie mix one meal, and a spoonful of grains one meal. I split a teaspoon of Solid Gold Bonemeal between the three meals. I also supplement with Berte's Daily Blend and salmon oil at two meals.

The meat is usually boiled, sometimes roasted, then chopped up and frozen in portions that last a couple of days.

Once I really got into home cooking, I bought a chest freezer that has been wonderful both for freezing the cooked food and storing pre-cooked meat. I cook sweet potatoes in the microwave for five minutes, while some of the other veggies are cooked (steamed), and then all are chopped up fine in a food processor. I keep the meat and veggies separate so I can mix and match per meal/dog.

Tika, my puppy, was a slow eater with kibble and needed encouragement to finish. Now she is eager to eat and gobbles it all down! I think that



Tika, a five-month-old Eurasier, is another formerly finicky eater who chows down – now that she is given "real" food!

my pup's eyes look much clearer and brighter after changing from kibble, and I was using high-quality brands. Both dogs just look overall healthy to me, and they certainly eat with great gusto!

*Comments:*

The amount of calcium added to a puppy's diet is very important. The teaspoon of bone meal that Pam adds supplies 1,368 mg of calcium to balance out 18 ounces of food, so that's around 1,200 mg of calcium per pound of food. The vitamin supplement she uses contains vitamin D, which enhances the uptake of calcium, so this amount looks just about right.

### Help for food intolerances

Sally Gutierrez, of Long Beach, California, has been feeding a homemade diet to her dogs, who have many food intolerances, for almost two years. She started feeding a home-prepared diet when her 15-year-old Dachshund was diagnosed with pancreatitis. He lived another 18 months – well past his veterinarian's prediction – and the improvements in his health helped him enjoy a good quality of life in his final months. That experience led Gutierrez to home-prepare all of her dogs' food.

Currently, I have two rescue dogs: Smokey, a 7-year-old Chow/Lab, and CC, a 13-year-old Eskimo/Lab. Smokey gets 16 ounces of food twice a day, and CC gets 14 ounces twice a day.

Typically their meals consist of slow-cooked meat (e.g., pork, turkey, chicken, or beef, cooked in a crock pot for about 12 hours), or Evanger's canned Game Meats (duck, pheasant, buffalo, rabbit), or canned fish with bones, such as pink salmon and sardines. I try to give them the fish once a week, and rotate the meats as much as possible. Smokey has one poached egg with his food every day. I don't give CC an egg because, for her, it triggers diarrhea.

Along with the meat I give them about 40 to 50 percent vegetables. I feed a wide variety of veggies: creamed winter squash (their favorite! – I buy it frozen and already cooked and creamed, I just heat it in a microwave), summer squash, broccoli, cauliflower, green beans, peas, carrots, and occasionally spinach and cucumber.

I usually buy the veggies frozen and nuke them till they are barely warm (to retain most of the nutrients). I then blend them with a meat broth left over from the slow-cooked meat. Occasionally I grate fresh produce and add it to a broth soup.

The only organ meat that they get is beef liver (organic or grass-fed), usually small amounts for about five days, every other week. I give them small amounts to limit the vitamin A that is found in liver. On occasion, I add variety, such as beef marrow gut, chicken hearts, and chicken gizzards. I would like to add more organ meats but have a hard time finding them.

I originally added rice to their meals but discovered that it gave them both diarrhea. I tried wild rice and Minute rice and had the same results. They both appear to be lactose-intolerant, so they get no dairy products.

I provide them a vitamin supplement (rotating between brands) and also add ½ teaspoon Kal Bone Meal Powder per meal. I recently began wrapping their vitamins in a blob of nut butter – it serves as a sneaky treat!

Their diets are almost identical to my diet (I have severe food allergies). CC has several



Sally Gutierrez's dogs hit the trail in the San Gabriel Mountains. Prior to receiving a homemade diet (two years ago), CC, the 13-year-old (left), was often stiff and her rear legs were weak; clearly, this is no longer the case!

food allergies and may have undiagnosed inflammatory bowel disease (IBD). I have seen about a 95 percent reduction in scratching from my dogs since starting to feed them a homemade diet. CC's formerly watery stools are now firm, and her stiffness and muscle weakness in the rear are now gone as well.

*Comments:*

The amount of food these dogs are fed may seem like a lot, but almost half of it is vegetables, which are lower in calories. Both dogs are also quite active, going on hikes in the mountains with their owner regularly. The amount of bone meal in this diet is high, and Gutierrez plans to adjust the amount to provide around 1,000 mg of calcium per pound of food.

**A low-fat diet for a dog with health problems**

Janet Hughes, of Greenbelt, Maryland, has been feeding a low-fat cooked diet for the past 18 months to her elderly Collie-mix, who suffers from chronic pancreatitis.

Scampers is 18 years old and weighs 50 pounds. Here is her typical daily diet, split between breakfast and supper:

1 cup chicken breast, boiled, with all visible fat removed

¼ cup heart (usually beef, occasionally turkey or chicken), boiled, fat removed

¼ cup lean ground meat (beef, pork, or turkey), boiled and rinsed; beef kidney; or chicken gizzards

¼ cup liver (pork, chicken, or beef)

¼ cup cottage cheese, nonfat or low fat

½ cup boiled veggies (approximately one part summer squash to one part collard or turnip greens, kale, Brussels sprouts, broccoli, or spinach)

½ cup starchy carb (sweet potato, oatmeal, or barley)

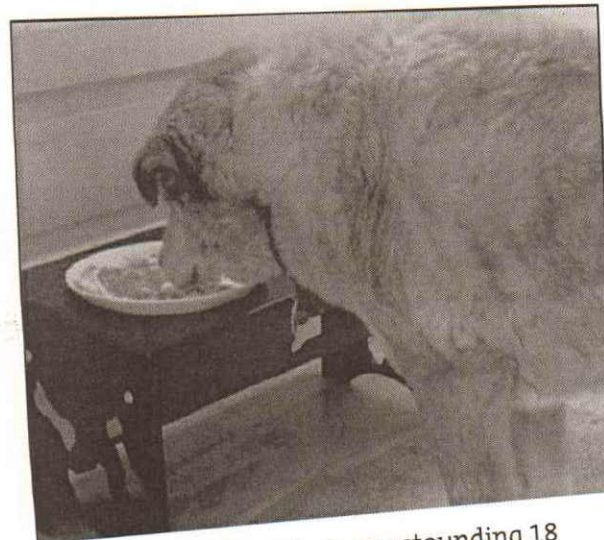
1½ Tbsp coconut oil

½ tsp ground eggshell

She also gets lunch, which is a scrambled egg with yogurt, or occasionally jack mackerel (she can't tolerate much of it, and doesn't care for whitefish). I supplement daily with two or three fish oil softgels, Berte's Digestion Blend, and a geriatric vitamin tablet (Geri-Form), along with 400 IUs vitamin E three or four times a week. She also gets medications for pancreatic insufficiency and arthritis.

I cook, package, and freeze about once a month, using an assembly-line production over a few days. I boil the veggies all at once, then cook the starchy carbs. I package the half-and-half mixture of the two with the coconut oil and eggshell so that her eggshell and coconut oil for one day are in one cup of the veggie/starch mix. I then boil the chicken, cool and chop, then boil the heart and cut it into cubes. I cook the ground meat or gizzard, then the liver, and cube them.

I package each day's ration into a single GladWare container, stacking chicken, other meat, liver, and cottage cheese, with the veggie mix on top.



Scampers, a Collie-mix, is an astounding 18 years old! She suffers from pancreatitis, but has improved since starting to receive a low-fat, home-cooked diet. Scampers' food is presented in an elevated bowl because her back legs wobble otherwise.

[www.whole-dog-journal.com](http://www.whole-dog-journal.com)

I've tweaked her diet over several months to suit her. Too much broccoli or too little summer squash in her veggie mix and she gets burpy and spits up, for example. She doesn't care for white potato, and lamb is too fatty for her.

I found the addition of the Digestion Blend keeps her settled. Prior to starting that, she'd have almost monthly flare-ups of inappetence and diarrhea. The coconut oil also was a major boon for maintaining overall bounce. She's been eating this home-cooked diet for over 18 months (after a couple of years of trying to resume a normal diet, then trying Hill's and IVD prescription diets, which she hated).

*Comments:*

This is a great example of how a homemade diet can be modified to meet an individual dog's needs. Whether specific ingredients need to be avoided, fat levels need to be adjusted, or ratios need to be tweaked, you have complete control and can feed what works for your individual dog. Coconut oil supplies a form of fat that is more easily digested by dogs with fat intolerances.

### **Just share your own meals**

Carol Boyle, of the greater New York City metropolitan area, has cooked for her Great Pyrenees for more than two decades!

I started with Pitcairn (Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats) as my guide, but thought he did not use as much variety as I would like to use, so I began adding more and different vegetables. I realized that I would make chicken thighs for the dogs one night, and then roast breasts the next night for my family, and the light went on. I began cooking whole chickens and we share them.

When I cook for my husband and myself, we always start with a salad, followed by a protein source, a vegetable, and a carbohydrate. I serve the same or similar foods to the dogs. I cook as though I am cooking for a large family.

Sunday was a typical meal. I put two 5-pound chickens in the oven to roast. They were lightly sprinkled with garlic salt and lots of dried rosemary. I made rice pilaf and broccoli. The dogs got the giblets (liver and heart, etc.) of the chickens, as well as the dark meat. We ate the

breast. We had a salad and the dogs got some shredded carrots and cucumbers in with their food too. There is one chicken and some rice left for another meal for them.

Last night we had London broil, baked potato, cauliflower, and some salad.

Sharing meals has taken the drudgery out of feeding something special to the dogs. Basically, we all eat the same food. The dogs get a higher percentage of meat ( $\frac{2}{3}$  meat to  $\frac{1}{3}$  veggie and carbo combo) than we do, and they do get some meals that are different from ours. Three times a month they get liver; once a week they get canned salmon or sardines. We go out or call out for dinner when they get the different foods (neither of the dogs like Chinese food, but pizza is another story!).

The dogs have done remarkably well on this diet. My old Patou was five years old when I started this diet, and he lived to be almost 15, an unheard-of age for a Great Pyrenees. Our current crew consists of Cajun, 11 years, and my new Patou, three years.

I make certain that everything is as fresh and wholesome as possible. We eat all different kinds of meats and vegetables, cooked simply and seasoned liberally with herbs and spices (not hot). And that's it: 20 years and three dogs. And lots of roasted chicken, steaks, pork roasts, and all kinds of vegetables. The only supplement I give routinely is calcium in the form of eggshells ( $\frac{1}{2}$  teaspoon ground eggshell per pound of meat). I believe that most of the nutrients we need are best supplied in the variety from a natural diet.

*Comments:*

Dogs don't digest vegetables very well unless they are either cooked or pureed, to break down the cell walls (grating isn't enough), though whole, raw veggies will do no harm (they just won't contribute their full nutritional value). I would feed liver more often than this, simply because it is so nutritionally dense, though you can see that dogs can thrive with less. Oh, and don't assume your dogs won't like something like Chinese food – mine have always loved it!

### **Using pre-mixes**

Dawn Lange, of Duluth, Minnesota, feeds commercial dog food pre-mixes to her senior