

The Whole  Dog Journal

Home-Prepared Diets for Dogs

●●● PART TWO

Raw Diets

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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 Three: Cooked Diets
- Home-Prepared Diets for Dogs, Part Four: Finer Points of Home-Prepared Diets



Tomo pulls meat and other nutritious tissues off a beef leg. Many fans of raw diets form clubs to buy ingredients in bulk and share unexpected wealth, like this meat from a rancher with an unsellable dead cow.

A Raw Deal

How to formulate and prepare a canine diet that includes raw meaty bones.

by Mary Straus

Countless dog owners have witnessed the benefits of feeding their dogs a nutritious home-prepared raw dog food diet, such as cleaner teeth,

brighter eyes, thicker and glossier coats, more lean muscle and less body fat, and better energy level – hyper dogs often become calmer, while couch potatoes may become more energetic.

Previously in other e-books, we discussed those benefits at length and introduced the fact that there are many different styles of homemade dog food diets. In this article, we'll explain how to create a raw dog food diet that includes bones –perhaps the most commonly used “evolutionary” diet for dogs. In a companion e-book, we'll discuss cooked diets.

When I first began to consider feeding my dogs a homemade diet, one of my biggest concerns was the fact that I am not comfortable in the kitchen. I don't really cook for myself, so the thought of preparing meals for my dogs was overwhelming. Once I started, though, I was happy to discover that it was not as much trouble as I had feared – in fact, it was quite rewarding. Dogs are usually so appreciative of everything we offer that it makes meal time a real joy. I feed a great deal of variety, yet my dog Piglet tells me that each and every meal I put in front of her is her absolute favorite, and she devours it, practically licking the finish off the bowl (I call it “checking for molecules”). How can you resist something that makes your dog so happy?

Raw meaty bones

Most of us who feed a raw diet to our dogs include whole raw meaty bones (RMBs), animal parts that are at least half meat but also include bone that is fully (or mostly) consumed. This is in contrast to recreational bones, such as knuckle and marrow bones, which usually have little meat and where the bone itself is not eaten.

RMBs that are commonly fed include chicken necks, backs, and leg quarters; turkey necks; lamb breast and necks; pork breast (ribs) and necks; and canned fish with bones, such as jack mackerel, pink salmon, and sardines (preferably packed in water rather than oil). Raw fish can also be fed, though some may harbor parasites (freshwater fish are more likely to have problems than saltwater fish). Never feed raw salmon or trout from the Pacific Northwest (California to Alaska), as this can cause a fatal disease called salmon poisoning in dogs. Cooking makes salmon safe to eat; canned fish is cooked, so there's no

concern about salmon poisoning from canned salmon.

It's not always easy to find RMBs. Ask your local meat manager or butcher; they can often order them for you, though you may have to buy a case at a time. (Most of us who feed our dogs a raw diet have purchased a separate freezer to help store the food!) Ethnic markets often have a wider selection than grocery stores do. There are a number of raw food co-ops and groups who share information and buy in quantity directly from vendors, both to lower the cost and to gain access to a wider variety of foods. If there is no group in your area, consider starting one.

You can keep costs down by buying in bulk, looking for sales, and buying meat that is close to its expiration date and marked down. It helps to develop a relationship with your suppliers, who may be willing to save bargain-priced meats for you.

RMBs should make up 30 to 50 percent (one third to one half) of the total diet, or possibly a little more if the parts you feed have a great deal more meat than bone (e.g., whole chickens or rabbits). The natural diet of the wolf in the wild contains 15 percent bone or less, based on the amount of edible bone in the large prey animals they feed upon. While a reasonable amount of raw bone won't harm an adult dog, more than 15 percent is not needed and reduces the amount of other valuable foods that can be fed.

Too much bone can also cause constipation, and the excess calcium can block the absorption of certain minerals. The stools of raw fed dogs are naturally smaller and harder than those fed commercial foods, and often turn white and crumble to dust after a few days. If the stools come out white and crumbly, or if your dog has to strain to eliminate feces, you should reduce the amount of bone in his diet.

Most dogs do fine with raw meaty bones, but a few may have problems, including choking and (rarely) broken teeth on the hardest bones. In my experience, turkey parts are associated with the most problems, though many dogs eat them regularly with no trouble.

If you are concerned about feeding whole RMBs, you can buy them in ground form or grind them yourself. You can buy a grinder for \$100 to \$150 that can handle most chicken parts

and possibly a few other kinds of bones. More expensive grinders may be able to handle bones that are somewhat harder, but they all have a similar chute size, which makes it difficult to fit in larger parts. Note that none of the makers of these grinders claim their products have the ability to grind bones.

Another option that I use for my older dogs, whose teeth are too worn to be able to chew bones properly, is to cut up the parts into bite-sized pieces using kitchen scissors. These scissors handle chicken parts and lamb breast easily (except for the hardest end of the ribs).

For harder bones, such as turkey, pork, and lamb bones, you can use a hatchet or a cleaver that you hit with a mallet (which is safer than swinging the cleaver). While ground and cut up RMBs will not provide the same chewing pleasure or dental benefits, many people who feed ground RMBs report that their dogs' teeth stay cleaner than when they fed packaged foods.

You can also feed larger, harder bones with a lot of meat on them; just take the bone away when your dog is done removing the meat. I have done this with beef rib and neck bones; people with large dogs use bigger bones. There is still some danger of broken teeth, but less than if you allow the dog to continue to chew on the bone after he's eaten the meat (bones dry out and become harder over time).

Remember that if you feed a diet that includes 30 to 50 percent RMBs, there is no need to add calcium supplements.

Organ meat

Organs are an important part of a raw diet. Liver and kidney in particular are nutrient-dense and provide a great deal of nutritional value. These foods should make up about 5 percent of the total diet. Note that they may cause loose stools if too much is fed at one time. It's better to feed smaller amounts daily or every other day than to feed larger amounts once or twice a week.

Heart is nutritionally more like muscle meat than organ meat, but it is rich in taurine and other nutrients. If possible, make heart another 5 to 10 percent of the diet. More can be fed; just remember that too much can lead to loose stools in some dogs.

Other organs, such as spleen, eyeballs,

sweetbreads (pancreas and thymus glands), brain, etc. are nutritious and can be added to the diet in small amounts

Muscle meat, eggs, and more

The rest of the diet will be made up of muscle meat and eggs, along with dairy products and other healthy foods.

Muscle meat consists of all meat that is not considered organ meat. Feed muscle meat from a variety of sources, such as beef, lamb, pork, chicken, and turkey. Muscle meat can be fed ground or in chunks. If you have difficulty feeding much variety in your raw meaty bones, you can make up for it in this category. For example, if your raw meaty bones are mostly poultry, then you can feed beef, lamb, and pork muscle meat. Never feed more than half the total diet from a single protein source, such as chicken.

Eggs are an excellent source of nutrition. They can be fed raw or cooked; cooking actually makes the whites more digestible. 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). Dairy fat is a source of medium-chain triglycerides, a form of fat that is easier to digest for dogs with pancreatic disorders and other forms of fat intolerance.

Green tripe, which is the stomach lining from cows and other animals, is an excellent food for dogs, but be warned that it smells awful – at least to us; dogs love it. Nutritionally, it is similar to muscle meat. Green tripe can be purchased only from sources that sell food for dogs; it cannot be sold for human consumption. The tripe that you find in your grocery store has been bleached and treated and does not provide the same nutritional value as green tripe.

It is also fine to feed healthy leftovers (food you would eat yourself, not the scraps you would throw away) to your dog as long as they are not too great a percentage of the diet – 10 to 20 percent of the diet should be okay.

Vegetables, fruits, and grains

Feeding vegetables, fruits, and grains is optional,



Help him by not letting him help himself to grapes!

as dogs do not require carbohydrates in their diet. Even though these foods would make up a tiny percentage of the natural diet, they provide some nutritional value, especially trace minerals and phytonutrients from leafy green vegetables.

If you feed veggies, they need to be either cooked or pureed in a food processor, juicer, or blender. Whole, raw veggies are not harmful, but their cell walls are not broken down during digestion so they provide little nutritional value to dogs. Most veggies have few calories, so they should be added on top of the amount of food you feed, rather than calculating them as a percentage of the diet.

Good veggies to feed include broccoli, cauliflower, brussels sprouts, cabbage, all kinds of leafy greens, celery, cucumber, bell peppers, zucchini and other summer squashes, carrots, and more. You can mix up a large batch and then freeze them in ice cube trays or muffin tins for easy meal-sized portions.

Steaming is the best method to cook fresh or frozen veggies. You can add the water used to steam veggies to the meal, as it will contain the minerals that were leached out during cooking. Small amounts of leftover meat juices, drippings, sauces, and gravy will make this into a savory soup.

Some dogs enjoy vegetables, but others refuse to eat them no matter how they're prepared. If your dog won't eat vegetables, or you prefer not to feed them, you may want to add a blend of kelp and alfalfa, or a green food

supplement (more on this below).

Fruits such as apples, bananas, papayas, mangoes, berries, and melon can be added to the diet in small amounts. Don't feed grapes or raisins, which can cause kidney damage in some dogs.

Grains, legumes, and starchy veggies, such as potatoes, sweet potatoes, and winter squashes, are a source of inexpensive calories but don't provide as much nutritional value to dogs as foods from animal sources do. These starchy foods need to be cooked in order to be properly digested by dogs.

Many health problems can be caused or exacerbated by grains and other starchy carbohydrates. If your dog is overweight or suffers from allergies, arthritis, seizures, IBD, or other digestive disorders, you may want to try feeding a diet without these foods to see if your dog improves. If you decide to feed them, it's best if they make up no more than 20 percent of the diet.

Potatoes (not sweet potatoes), tomatoes, peppers (all kinds), and eggplant may aggravate arthritis pain, but are otherwise fine to feed. Grains and starchy veggies may also aggravate arthritis and other forms of inflammation.

Fresh food supplements

Healthy dogs that are fed a wide variety of



appropriate foods should have no need of supplements, but there are several fresh food supplements that may provide additional benefits when added in small amounts:

- Fish body oil, such as salmon oil, provides beneficial omega-3 fatty acids that help to reduce inflammation and regulate the immune system. However, you must add vitamin E to the dog's diet whenever you supplement with oils; otherwise fish oils can induce a relative deficiency of vitamin E.
- Sea blend, green blend, or kelp/alfalfa mixture supplies trace minerals. These are especially good to add if you don't feed green veggies.
- Organic (unpasteurized) apple cider vinegar provides some trace minerals.
- Raw honey has antibacterial properties and offers a variety of nutritional benefits.
- Fresh crushed garlic has anti-inflammatory and antibacterial properties, as well as other benefits, and may help to repel fleas. Give no more than 1 small clove (one small portion of the bulb) per 20 pounds of body weight daily, as high doses can cause anemia.
- Ginger is good for digestion and may help with inflammation.
- Nutritional yeast is an excellent source of B vitamins, along with trace minerals.
- Dark molasses can also be used in small amounts as a source of trace minerals.

Prey model

There is a style of raw feeding called "prey model," that advocates feeding a diet based on whole prey and excludes anything else, such as dairy, vegetables, fruit, or supplements. This is based on a desire to mimic the diet of the wolf in the wild. The true prey model involves feeding large chunks of meat along with small amounts of bone, organs, and eggs. It is certainly possible to feed a good diet using this model, but there are some factors that should be taken into consideration.



Eleven-year-old Tomo enjoys a “prey model” diet that includes raw meat, bones, and organs (including liver, above) from a wide variety of species.

Feeding parts is not the same as feeding whole prey. When wolves in the wild eat a deer, they consume almost everything except the stomach contents and some of the hardest bones from the skull and legs. That includes not only the muscle meat, bones, liver, and heart, but the eyes, tongue, brain, blood, intestines, kidneys, lungs, and various other organs. If you are not feeding actual whole prey, you may be missing parts of the diet that include important nutrients.

In addition, whole, large, grass-fed prey such as deer, moose, and bison, have different nutrient profiles than animals that are farm-raised, and smaller animals such as chickens. The nutrient content of animals raised in various ways (wild animals, grain-fed animals, animals raised on grass from depleted soils) also varies

widely. Even if you feed whole rabbits or chickens, the nutrition will not match that of the large ruminants that our dogs evolved to eat.

While some people swear by prey model diets, I believe there is no benefit to be gained by leaving healthy foods such as dairy and vegetables out of the diet. The more restrictions you place on a diet and the less variety you feed, the higher the likelihood that something may be missing. I believe that adding foods and supplements not found in the natural diet of the wolf can help our dogs live the longest, healthiest lives possible

Commercial raw diets

There are two types of commercial raw, frozen diets currently available. The first type is a complete diet, formulated to meet the nutrient levels suggested by the Association of American Feed Control Officials (AAFCO). Examples include Prairie from Nature’s Variety, Home Made 4 Life, and Steve’s Real Food for Dogs.

These foods can be used just as you would commercial dry or canned foods, with no need to add anything else (though just as with other commercial diets, it’s best to rotate between different brands and protein sources, and it’s fine to add some fresh food as well). Complete commercial raw diets are generally quite expensive; they’re usually not an option for those who have large dogs or limited funds.

The second type of commercial raw, frozen diets provide a variety of different parts that can be combined, along with other foods, to create a complete diet. These parts may include meat, bone, organs, and vegetables, but generally nothing else. Examples of companies that offer these types of diets include Bravo!, Oma’s Pride, and an increasing number of small, independent local companies. These are great foods to include in the diet you feed your dogs, but you cannot feed them alone, without adding anything else.

When you compare the ingredients of the complete diets to those of the incomplete blends, you will notice that the complete diets add a number of foods in addition to meat, bone, and organs, including such things as eggs, kefir, tripe, kelp, alfalfa (sprouts or dried), garlic, raw honey, organic apple cider vinegar, ginger, oils (fish, flaxseed, olive, coconut, cod liver), seeds

(sprouted or ground), nuts, and a wide variety of fruits and vegetables. They also sometimes add specific vitamin and mineral supplements, such as vitamin E, manganese, zinc, iron, and copper, or a natural source of minerals, such as montmorillonite clay. Note that complete diets usually include more muscle and organ meat and less bone than the meat/bone/organ/veggie blends.

If you want to use incomplete blends as the basis for the diet you feed, most often you'll want to add a bit more organ meat (particularly liver), some additional muscle meat that does not include bone, and a variety of other healthy foods, including eggs, dairy, canned fish with bones, green tripe, healthy leftovers, and some fresh food supplements. Fish oil and vitamin E would also be good additions to the diet. The fewer foods you add, the more important supplements will be.

For example, the Bravo! blends are approximately 10 percent organ meats (equal parts heart, liver, and either kidney or gizzards), 15 percent vegetables, and the rest ground meat and bones. These blends should be used as one half to two thirds of the total diet, with a mixture of the other foods listed above making up the rest of the diet. You can get some of these other foods, including muscle meat and organ meat, from Bravo! or at your grocery store.

Puppies

For the most part, puppies can be fed the same diet as adult dogs, though young puppies will benefit from the addition of goat's milk to the diet. It is even more crucial that you get the proportions correct and feed a wide variety of foods when feeding puppies. It is also imperative that you feed an appropriate amount of bone, neither too much nor too little, especially to large- and giant-breed puppies under the age of six months, when they have less ability to regulate their uptake of calcium, and both calcium deficiencies and excesses can lead to serious orthopedic problems.

Raw meaty bones should comprise around 30 to 50 percent of the diet. Be careful if you supplement with cod liver oil or another form of vitamin D. Vitamin D increases the absorption of calcium, so if you feed high amounts of bone and vitamin D, you increase the likelihood that



Yup, that pup is chewing a raw chicken neck with his tiny teeth. Puppies take to raw foods with gusto; their owners say raw-fed build stronger bodies than kibble-fed pups from having to work at pulling meat off the bones.

too much calcium will be absorbed. Never add calcium to a diet that includes appropriate amounts of bone.

Remember that high-protein diets will not cause excessive growth or lead to orthopedic problems in puppies. These problems are caused by overfeeding and by improper calcium amounts (either too much or too little). In order to avoid orthopedic problems, keep your puppy lean and slow-growing by limiting the total amount fed.

Remember the rules

As a reminder, there are three basic rules to feeding a homemade diet: variety, balance over time, and calcium.

All homemade diets need to contain a variety of different foods, including different types of meat and raw meaty bones, different parts (especially organs), and different foods, such as eggs and dairy. A lot of people depend on chicken since it's cheap, but if your dog gets nothing but chicken, even if you feed organs along with muscle meat and bone, he will not get all the nourishment that he needs. As a general rule, you should never feed one kind of food as more than half the diet, and preferably less.

When you feed a variety of different foods, every meal does not need to be "complete and

balanced.” You should ensure that all of your dog’s nutritional needs are met over a period of a week or two, but that can be done by feeding different foods at different meals, and on different days; you don’t have to combine all the different foods into a single meal. It’s also fine to feed just beef, for example, for a couple of weeks, and then switch to another meat source for the next two weeks.

A raw diet that includes 30 to 50 percent raw meaty bones will supply the proper amount of calcium; there is no need to add more.

Amounts to feed

As a general rule of thumb, dogs will eat around 2 to 3 percent of their body weight in fresh food daily, but remember that each dog is an individual, and the amounts they eat can vary considerably. There will be more details on calculating amounts to feed in the ebook on cooked diets.

Making the switch

The first time we feed raw meaty bones to our dogs is always frightening. We’ve been told so many times to never feed bones to dogs that it’s hard to believe they won’t drop dead when we do. It’s important to remember that the warnings are about cooked bones, not raw, and that eating bones is natural for dogs.

Most raw feeders can empathize with my friend, Mindy Fenton, who says, “The first time I fed one of my dogs a raw chicken wing, I followed her around for three days, terrified that I was going to kill her, and waiting for that darned wing to come out whole because I was sure it would. Of course, she was perfectly fine, but it took some time before I became relaxed about feeding raw meaty bones.”

The choice of what to start with can vary according to your comfort level, and how likely you think your dogs are to gulp their food. Many people advocate feeding pieces that are too large to be swallowed, requiring the dog to chew on them first. This doesn’t always work, since large pieces become small pieces as the dog eats them, and he may still try to swallow pieces too large to go down easily.

I am most comfortable with feeding chicken necks and backs to my dogs; the bones are soft

and easily chewed, and the pieces are small enough to be swallowed even if the dog does not chew them well (small dogs may have problems with chicken necks). Others feed chicken wings or leg quarters. If your dog is not protective of his food, you can try holding onto one end while she chews on the other, to help her learn to chew rather than gulp, but watch your fingers, and don’t try this if it makes your dog anxious.

Many people worry that their dogs may be too old to switch to a raw diet, but in my experience, older dogs do as well as younger ones with the change. My oldest dog was 13 years old when I switched him overnight to a raw diet, and he had no problems.

Most dogs do just fine when switched “cold turkey” from commercial food to a homemade diet, but a few will experience digestive upset. The longer a dog has been fed the same food with no variation, the more likely he is to have a problem if his diet is changed too quickly. Dogs that are prone to digestive upset may also benefit from a slower, more careful approach.

To make the change gradually, start by adding small amounts of fresh food to the current diet, then gradually increase. If problems develop, return to the prior diet and make the change more carefully once your dog’s 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), or feeding only one new food at a time, to see if your dog reacts to any of the new ingredients.

The one exception to mixing foods is when you feed raw meaty bones. I find that the consumption of kibble interferes with the digestion of bones; digestive problems are more likely if you mix the two together. If you are feeding whole raw meaty bones, feed them separately from kibble, at least a few hours apart.

It’s fine to start with limited variety until you see how your dog does, but don’t feed just one food for long periods of time. Sometimes people will start with just chicken parts, for example, but this may lead to constipation if there is too much bone in the diet. While you may want to feed just chicken at the beginning, be sure to feed plenty of meat as well as bone, and don’t feed such a limited diet for more than a week or two.

If your dog has any problems with the new

diet, back up and start again, making the change more slowly this time. Do not blame problems on “detox.” If your dog develops diarrhea or other forms of digestive upset, it is because his diet was changed too quickly, or because he is reacting to one or more of the ingredients in the new diet.

In that case, again, go back to what you were feeding before (or what you know your dog can tolerate without a problem), then add new foods one at a time in order to identify which one(s) are causing problems. Also, while most dogs improve when fed raw foods, a few cannot tolerate it for some reason and may need a cooked diet instead. There is more information on cooked diets in the accompanying ebook.

The rewards

Preparing your dog’s meals yourself is not as easy as simply opening a can or pouring kibble out of a bag. However, once you’ve done the initial work of devising the diet and finding sources for the products you will feed, it isn’t terribly time-consuming. The actual preparation is fairly simple; the hardest part is buying products in bulk and then splitting them up into meal-sized portions for feeding. But the rewards can make it all worthwhile.

Most people who switch their dogs to a raw diet notice improvements even in dogs who seemed to be perfectly healthy before. Feeding a homemade diet may cost a little more, but many people report a decline in vet bills. Best of all is watching the enjoyment our dogs get from their meals, and taking pride in knowing we are doing the best we can for our dogs

Keeping it raw

The idea of cooking for my dogs turns me pale. Not because I think there’s anything wrong with cooked diets, or because I’m worried about doing it right, but for one simple reason: I hate to cook.

Had my only option for feeding my dogs a homemade diet been cooking their food, I’m afraid they’d still be eating out of a bag. But the idea of a raw diet, once I wrapped my mind around the concept of feeding bones, seemed, if not exactly simple, at least feasible, given my limited kitchen skills.

I’ve been surprised to learn that there are many people like me: we don’t cook for our

families or even ourselves, but we feed our dogs a homemade raw diet, and actually enjoy preparing their meals.

Feeding a raw diet is quite simple, especially once you have a system in place, but like anything else new, it can seem very complicated when first starting out. I hope these sample diets will be helpful to newcomers considering feeding a raw diet, and that even those who have been doing it for awhile may learn some new tricks to make the process of finding, preparing, and storing food simpler.

My dog’s diet

In 1998, I began feeding a raw diet to the three dogs I had at the time. While getting started took a lot of planning, the routine I’ve worked out makes it simple for me to manage now. Piglet, my 15-year-old Chinese Shar-Pei, weighs 35 pounds, and is relatively inactive due to her age. She ate more when she was younger, and I gave her more fat. Here’s what I feed her now:

Breakfast (4 ounces, plus dairy and vegetables)

- large egg alternating daily with 1 to 1½ oz liver or kidney
- Muscle meat, heart, green tripe, and/or healthy leftovers, enough to equal 4 oz total food (including egg/organs)
- A spoonful of yogurt or cottage cheese (I use low-fat or nonfat varieties)
- 3 to 4 oz veggies, alternating daily between steamed veggies and pureed “veggie muffin” (described below)

Dinner (5 ounces)

- Mon/Wed/Fri: rotate among chicken necks, chicken backs, and lamb breast (with skin and visible fat removed)
- Sun/Tues/Thurs: rotate among different ground products, ranging from raw meaty bones only to complete diets

- Saturday: canned fish, alternating between jack mackerel and pink salmon, or occasionally sardines

Dietary supplements

- 2 high-potency fish oil gelcaps (I give high doses due to her arthritis)
- Antioxidants (Vetri-Science Cell Advance 880, Thorne Veterinary Small Animal Antioxidants, or Thorne Veterinary Immugen)
- B-50 vitamin complex
- Splash (1 tsp?) of organic apple cider vinegar
- 1/8 tsp green blend (usually Berte's Green Blend)

I do not package food in meal-sized portions. Instead, I divide food up into amounts that will last around one to three meals, and freeze. I store most food in Ziploc-style freezer bags that I wash and reuse. Each time I feed a meal, I move anything that I will need for the same meal in two days from the freezer to the fridge. When I run out of one food, I start on the next, so meals are often a mixture of several different kinds of food.

"Veggie muffins" are prepared in large batches that last a month or more. I puree a mixture of various fruits (apple and banana, sometimes others as well), vegetables (lettuce, celery, cucumber, zucchini, dandelion greens, arugula, etc.), and herbs (always ginger and garlic, usually along with parsley or cilantro) in a food processor, then spoon the mixture into a muffin tin and freeze (you can use ice cube trays for smaller servings, but Piglet loves veggies). Once frozen, I transfer the veggie muffins to freezer bags.

Steamed veggies are usually frozen broccoli or sometimes cauliflower or winter squash. I save any leftover sauces, gravy, meat drippings, chicken carcass, etc., and add them to the water that I use to steam the veggies, then pour the water over the meal to make "breakfast soup" (any bones are removed first).

Eggs are soft-cooked using microwave egg

cups. Pills are given dipped in a bit of cream cheese or peanut butter.

The ground mixtures I feed are primarily a source of bones that my dogs would not otherwise get, such as beef, pork, and venison.

I helped to start a raw food co-op in my area that allows us to buy directly from vendors at lower prices and gives us access to foods not normally found in stores (though stores can often order these products for you). I get all my raw meaty bones from the co-op, along with beef, lamb, and pork (ground, trim, heart, cheeks, liver, and kidney). I have a small 5-cubic foot upright freezer that allows me to buy in bulk.

Piglet's teeth are too worn to chew raw meaty bones (RMBs) properly, as she can't shear off pieces small enough to swallow, so I cut her RMBs into small pieces using kitchen scissors. I weigh all of her food using a postal scale, as otherwise she gains weight.

I used to give Piglet beef rib bones for recreational chewing, but she eventually broke a couple of teeth, so now I use chicken feet and bully sticks. Bully sticks, also called beef, steer, or macho sticks, or pizzles, are made from beef penises. Dogs love them, they last a long time, and they're readily available.

At the time I made the switch to feeding a raw diet, my oldest dog was 13, and had suffered from allergies all his life. He became completely allergy-free within three months of starting the raw diet. A second dog prone to allergies improved, but continued to have some problems. Piglet was also able to come off all arthritis medications for several years, though she is back on them now. All of my dogs have loved raw food and never experienced any problems with it.

Using a grinder

Laura Fulton, who lives in Diablo, California, grinds most of the food she feeds her two Weimaraners. She explains:

I began feeding Violet, now 10 years old, a diet from Dr. Pitcairn's book after she had a horrible reaction to vaccinations as a puppy. She did well on that diet, which included raw meat, cooked grains and supplements, for five years.

When I got a new puppy, Dozer, I wanted to start both dogs on a raw diet that included bones,

but I was concerned because Violet is a “gulper” – she prefers to swallow her food whole, no matter the size or shape. After removing a pork bone lodged in her throat, I knew I could not continue to feed her whole bones. I decided grinding raw meaty bones would be better than just feeding meat, as I liked the idea of them getting the natural balance of nutrients, including calcium, from the meat and bones.

I tried several small, mediocre grinders before I got my American Eagle ¾ horsepower grinder. It grinds everything I need to feed my dogs a varied diet. It weighs 75 pounds, so it usually stays on my kitchen counter.

I do give my dogs bones to chew when I can supervise them. Dozer gets more whole RMBs, as he is a very thorough chewer. I believe that chewing on bones provides good exercise and helps clean their teeth more than the ground bones do.



Laura Fulton, her two raw-fed Weims (Violet and Dozer), and Fulton's American Eagle electric meat grinder.

Violet (who weighs 76 pounds) and Dozer (84 pounds) each eat about 2 pounds of food daily, though I adjust the amounts depending on how they look.

In the morning, they each get 1 pound of ground meat, usually hearts or trim from beef, pork, lamb, turkey, or ostrich, mixed with ¼ cup of veggies three times a week. They also get whole, raw eggs without the shell two or three times a week, and I give each dog 2 tablespoons of yogurt or kefir after their breakfast.

In the evening, they each get 1 pound of ground RMBs, such as chicken necks, backs, or wings; lamb breast; turkey necks; or rabbit. Once a week they get canned salmon.

For veggies, I rotate through a mixture of celery, kale, beets, beet greens, romaine lettuce, spinach, sweet potato, apple, carrots, broccoli, string beans, snap peas, bok choy, collard greens, parsley, avocado, dandelion greens, and mustard greens. I blend these with enough water to make a thick liquid in my blender and freeze them in muffin tins, then transfer them to Ziploc bags to stay in the freezer. They also get whatever fruits I eat, such as bananas.

If either dog seems hungry or has a growly tummy in the evening, I will feed a grain meal, such as oatmeal, before bed. I also use canned pumpkin and slippery elm as needed for upset stomachs.

Each dog gets the following supplements daily or as noted:

- 400 IU vitamin E
- 1 Tbsp wild salmon oil
- 1,000 mg Ester C
- B-complex vitamin
- Liquid trace minerals (1 drop three times a week)
- Probiotics (two or three times a week)
- Alfalfa tablets or a teaspoonful of liquid chlorophyll (three times a week)
- Wheat germ (just a sprinkle now and then)

- Zinc supplement: one capsule with 15 mg zinc and 2 mg copper split between the two dogs once a week

I purchase my meat monthly in bulk through a dog food co-op. I also buy meats on sale at various grocery stores. I typically grind most of the meat when I get it and then put it into 2-pound plastic yogurt containers that are easily frozen.

I use between 90 and 120 pounds of meat per month. I have a freezer in my garage as well as an extra refrigerator that comes in handy when I need to defrost food in bulk, for repackaging.

My dogs are very healthy – their coats shine and they smell good. Their teeth stay clean, and typically the only time they go to the vet is for regular check-ups.

Our comments:

I have seen the American Eagle grinder in action, and it is awesome. The more powerful, stainless steel grinders are expensive, but they make the job of grinding much easier, particularly if you have a lot of food to process. Try to find one with a reverse switch, as this one has, which also makes a big difference.

The right tools

Shari Mann, of San Francisco, has fed her dogs a raw diet since 1993. She has an active Cardigan Welsh Corgi, Meg, who just turned five years old – and she just got a Bull Terrier puppy.

Meg weighs a lean 25 pounds. She eats 9 to 10 ounces of food daily, divided into two very unequal portions: about 1 ounce for breakfast, and 7 to 8 ounces for dinner, with the rest coming from snacks and treats.

Breakfast is home-ground beef, pork, or lamb rolled into balls containing pills: 500 mg vitamin C, and 100 to 200 IUs vitamin E. She loves to work for her food, so these are fed as training rewards.

After her three- to five-mile daily exercise, she gets a quarter-ounce cube of cheese or meat, or maybe raw beef liver.

For dinner, we work in variety. The one constant is a chicken foot with each evening meal, which she eats first. She gets at least two different kinds of animal protein (meat, meat

mixes, raw meaty bones, eggs, or fish), and either goat milk yogurt or green tripe. I add 1 gram of salmon oil with each dinner.

I'm fortunate to be able to order most food from the SFRaw co-op. I buy some items from the grocery store as well, such as canned mackerel. Eggs come from my friend's organic chickens.

Raw meaty bones are turkey, duck, chicken, or pork necks; chicken backs; or pork ribs. She does not like large chunks of food, so I cut them up with a meat cleaver, or I use my Estwing kindling axe and a chopping block for pork neck bones. When chopping, I keep my unused hand behind my back, and make sure there are no dogs around. Any sharp bone edges can be smashed with the flat backside of the axe.

The main meats I use are beef, lamb, and pork, cut into half-inch cubes, as well as turkey heart and gizzard, and canned jack mackerel. She gets bones in the evening meal only once or twice a week (she doesn't really like them that much, unlike prior dogs I've had); the rest of the time we use powdered eggshell calcium, about ¼ teaspoon per meal. She gets tiny snippets of raw beef liver or Organ Blend from greentripe.com.

I grind mixes for the dogs that include meat (beef heart, pork roasts, London broil, or leg of lamb) and organ meat (beef liver or kidney). This is especially convenient to feed on trips to our vacation cabin.



Shari Mann's Cardigan Welsh Corgi, Meg, provides chewing oversight for Mann's new Bull Terrier puppy.

I chunk or grind meat when I get it, and freeze in Ziploc containers. I buy whole beef livers and kidneys from the co-op, which I partially freeze for slicing ease. I use my Tilia FoodSaver for the organs, since it preserves the food value longer.

Meg gets no grains or veggies on a regular basis, as she doesn't like them (I fed veggies to prior dogs who enjoyed them). I add a tiny sprinkle of kelp powder to her evening meal. Now and then, I'll add fresh crushed garlic, herbs or bury some veggies under her yogurt.

Treats are most often dehydrated meats, such as turkey heart, London broil, or beef liver, which I make myself in my L'Equip dehydrator. I also mix an equal amount of beef liver and canned pumpkin in the food processor, then bake it, and serve that as treats.

My new puppy has been fed Halshan's ground chicken and ground turkey (with bone), and Honest Kitchen Embark (approved for puppies) by her breeder. I'll continue with similar foods, plus fresh raw goat milk. After a few days I'll start gradually adding my usual variety, including small amounts of veggies and fruits (apples, bananas). I'll start her on chicken feet to see how she handles raw bones (whether she is a chewer or a gulper). If she can't handle bone just yet, I'll grind it for her. I'll give salmon oil, vitamin E (100 IU), and a B-complex vitamin every couple of days.

Comments:

Having the right tools can make the job much easier. Shari's grinder, dehydrator, hatchet, and Tilia FoodSaver simplify preparing and storing healthy meals and treats.

Lacto-fermented what?

WDJ's longtime contributor CJ Puotinen, who lives in New York, describes the diet she uses for Chloe, her 3-year-old, 75-pound Labrador Retriever:

I feed Chloe pasture-fed organic meat, poultry, and eggs from farms here in New York and New Jersey, with occasional raw goat milk cheese from the farmer's market or health food store and goat milk kefir that I make at home. I also make lacto-fermented vegetables with finely shredded carrots, sweet potatoes, ginger, and other root vegetables. Lactofermentation predigests

vegetables, increases their vitamin content, and provides both probiotics (beneficial bacteria) and prebiotics (foods that feed beneficial bacteria).

My first pet nutrition mentor was Juliette de Bairacli Levy, whose Complete Herbal Handbook for the Dog and Cat introduced her Natural Rearing philosophy. I started following her guidelines 20 years ago with our cats and then with our first Lab, Samantha.

Levy believes that meat fed in large pieces exercises stomach muscles and helps prevent bloat and other digestive problems, so Chloe never gets ground meat. Whenever we buy a side of beef, we have it cut to order with the maximum amount of bone on the meat, whole or cut into large chunks, and wrapped in 1- to 2-pound packages.

Chloe gets more chicken and beef than other meats because we have such good local suppliers. She also gets lamb, goat, turkey, venison, or bison. Once in a while she gets wild-caught Pacific salmon, and I do cook that to prevent salmon poisoning. Chloe's recreational bones are usually beef, lamb, goat, or turkey.

I try to provide raw meaty bones at least every other day because if Chloe goes for several days without any, she will have a loose stool with mucus when bones are reintroduced. Many people say that they can't give their dogs raw bones because they get diarrhea. This is not unusual – it takes the digestive tract a while to adjust, which is why it makes sense to start with small amounts of bone, or to take the bone away after a few minutes and give it back to the dog the next day for a few minutes more.

Whenever we run out of raw bones and then get a new supply, Chloe has loose stools for a day, and then they become small, hard, and chalky, like plaster. In my experience, bone-fed dogs seldom have anal sac problems.

Chloe's dinner usually starts with 2 or 3 tablespoons of lacto-fermented veggies, 1 to 2 tablespoons coconut oil, a tablespoon of shredded dried coconut, a teaspoon of cod liver oil, and a little fresh organ meat, such as liver, if available. If she's getting an egg or cheese that day, it gets mixed with the veggies.

The meat or poultry comes next, fed in her crate on a towel because of the mess it makes. She gets raw meaty bones at least three or four

days a week. If she gets meat without a bone attached, she'll get an after-dinner bone to chew on. I use raw marrow bones for that – once she cleans them out, I fill them with raw goat cheese.

I put Willard Water concentrate in her drinking water and often add a splash of it to her dinner. Her other supplements are Standard Process Canine Whole Body Support powder and Seacure powder, both of which help the vegetables taste better.

Chloe gets between 1 and 1½ pounds of meat and raw meaty bones per day, usually fed in a single evening meal. Lately I've been giving her a cup of fresh goat kefir for breakfast, which I plan to continue as she has become fond of kefir, and it's so good for her. I generally feed a light evening meal with eggs and/or raw dairy or kefir on Saturday, and then fast her (water only) on Sunday.

Chloe was weaned on kibble, but it didn't take long to switch her to raw food. Less than a week after we brought her home at eight weeks, she was eating 100 percent raw and has ever since. She sometimes gets grain-based treats from friends or vets or trainers, but most of her training treats are freeze-dried liver, lamb lung, turkey hearts, or other low-carb or no-carb fare.

Comments:

I find it fascinating to see how CJ integrates many of the things she has written about in her WDJ articles into Chloe's diet, including lacto-fermented vegetables, coconut oil, Seacure, and Willard Water.

Even toy breeds eat bones

Randall Mackie, of San Francisco, has fed his 7-pound Yorkshire Terrier, Pumpkin, a raw diet for eight years. He explains why and how:

I started feeding a raw diet when Pumpkin, who was a puppy at the time, just wouldn't eat kibble, canned, or any other processed foods. She also had several bouts of serious gastrointestinal problems, one of which landed her in the pet hospital for several days. Within a month of switching to raw, she had gained weight, was more active, and she had no further digestive disorders – ever!

I feed muscle meat for her morning meal, and

raw meaty bones for dinner. I don't worry about balancing each day's meals, but believe in the concept of "balance over time."

A typical morning meal is one ounce of meat, usually beef stew meat or beef heart, but I vary this with chicken or pork meat, chicken hearts, chicken or duck gizzards, and whatever else I can find at the Asian markets here. Every few days, I add a small amount of cooked beef liver (she gets the runs with raw liver, even in tiny amounts).

Her favorite evening meal is a 1- to 2-ounce piece of pork neck bone. She loves these, and even if she can't completely consume them, they give her lots of chewing pleasure. I used to use a meat cleaver to chop them up, but I found an Asian market nearby where the bones actually come cut up in the perfect size for her. I find that she can generally consume about ¼ to ½ of the bone. Some nights, she gets chicken necks or chicken backs instead, and about once a week, she gets jack mackerel for her RMB meal. Pumpkin is good about not gulping, but I still split the chicken necks lengthwise, then split them again, and I hold onto them while she eats them. I also mince up the chicken backs before I give them to her.

A couple of days a week, Pumpkin is fed pre-made raw medallions from Nature's Variety, when other family members are caring for her. Finally, she gets table scraps, cottage cheese, yogurt, cheese, etc. – almost anything I eat, she will eat, except for veggies and eggs. I've tried and tried to get her to eat those, but finally gave up. Sometimes she'll eat bits of fruit (apple, melon, etc). And she loves vanilla ice cream!

For treats, I primarily use EVO kibble. I've even fed EVO at times when I didn't have anything thawed for her.

The only supplements she gets right now are fish oil and sometimes vitamin E, both of which I mix in with the cooked beef liver she gets in the morning.

When I first started feeding raw meaty bones, Pumpkin didn't quite know what to do with them, but she picked up on it quickly. In the beginning, I held the bone to help her get started, and now that's part of our routine. I'll hold the bone for a while, then after a few minutes I'll let her take it away from me, and she'll go and chew on it for a good long while.



Randall Mackie's Yorkie, Pumpkin, pulls meat off a bone held by her owner.

Comments:

Many people think that toy breeds cannot handle bones, but Pumpkin would beg to differ! Small dogs seem to be more susceptible to esophageal damage from bones, so be sure your dog chews them up well, or help out by holding onto the bones (if your dog doesn't object), cutting them up into pieces too small to cause choking, or grinding them.

Mass production for big dogs

Bridget Moran, of Pleasant Prairie, Wisconsin, is a Rottweiler breeder and Bravo! retailer who feeds a whopping 12 pounds of food a day to her six dogs, ranging in age from 2 to 11 years old, and weighing from 67 to 115 pounds. She reveals her system for feeding so many big dogs:

I feed raw meaty bones (RMBs) in the morning and muscle meat in the evening, for a total of 6 pounds of food each meal:

Morning meals may be composed of:

- Pork rib tips
- Chicken quarters, or chicken necks with added chicken hearts or gizzards

- Venison, lamb, or duck necks
- Turkey necks, or turkey backs with added turkey hearts
- Chicken breast meat with bone

Evening meals:

- Chunked pork heart (cheaper than beef heart, which one dog doesn't like)
- Ground turkey, beef, venison, or buffalo
- Tripe, always mixed half and half with another protein
- Chicken hearts and gizzards, or turkey hearts
- Jack mackerel (canned)

Supplements:

- 50/50 mixture of Berte's Immune Blend and Berte's Green Blend
- Salmon oil

I buy pork rib tips, chicken quarters, chicken necks, and pork heart in bulk from a restaurant food supplier that delivers near my house. I purchase turkey backs from the local grocer. The rest of my products are from Bravo.

I split the food unevenly between my six dogs, adding muscle meat to RMB meals when needed to get the proper amount of food for each dog, or if stools seem too dry. I weigh all my dogs' food, to help me get the amounts right, and mix and match proteins at will. I have been very lucky and have never had a choking incident (a friend lost her dog, a full sister to one of mine, to a turkey neck).

I use Bravo! Blends, which contain meat, bone, organ meat, and veggies, a few times a week to supply the bulk of my organ meat, or I add a handful of Bravo beef liver cubes to either meal. Once every month or two, I feed the more expensive exotic ground raw meaty bones from Bravo, such as elk, ostrich, or quail, for variety.

Here is my system. At an office supply store, I buy unscented garbage can liners for around

\$10 for 10,000 bags. These bags are not freezer-weight, but the food does not stay in the freezer long.

I split each case of food into bags containing enough for a meal for each of my dogs, plus a little extra. If I have time, I cube pork heart or beef heart, or grind muscle meat, and put about five pounds each into rectangular Glad or Ziploc containers (this shape works best for maximizing freezer space).

I have a 22-cubic-foot chest freezer. With chest freezers, it's helpful to know approximately where everything is, so I made a wooden divider that splits the lower half of the freezer into thirds, allowing me to put 40-pound bulk cases on top. The divider also lets me stack and retrieve Bravo rolls more efficiently. When I put food into the freezer, I alternate between muscle meat and RMBs, making it easier to get to what I want. I'm also careful to shift older food to the top when I fill my freezer up again.

The first dog I switched to a raw diet was my 11-year-old male who was very lame, but could not handle any pain medications. After a few weeks on the raw diet, he started putting weight on his bad leg, and was soon trotting around and retrieving balls. He lived almost another year before I lost him to cancer of the spleen. The vet and I were totally amazed, and I was a convert from that point on.

Comments:

Feeding a raw diet to so many large dogs can seem overwhelming, but once you have a system worked out, it goes quite smoothly.

Weaning pups onto raw food

As a breeder, Moran explains how she feeds her Rottweiler pups:

The first solid food I feed puppies at about four weeks of age is a very soupy mix of goat milk and ground turkey, gradually adding more turkey and less milk (all meals followed by nursing on the dam).

After a few days, I add whole, skinless chicken drumsticks and thighs, with the meat scored. Chewing meat helps relieve teething pain and saves the dam's nipples – most dams do not want to nurse during this stage, but I have found this

helps tremendously (I've also found a raw diet increases the amount of milk the dam has at this point).

At five weeks of age, I give the puppies a meal of ground raw meaty bones (usually from Bravo!). The second meal of the day is whole RMBs (skinless chicken), and the third meal is ground turkey and goat milk.

The puppies soon begin chewing the edge of the chicken bones. When this starts, I introduce chicken backs (I still give larger chicken pieces as well, as there is not much meat on the backs). I like to use chicken backs as they are too big for the puppies to swallow whole, and they learn to hunker down and chew through the backs until they have pieces they can swallow. I found that if I started with chicken necks first, there was always one puppy that would swallow the necks whole. I had a 5-week-old puppy who swallowed three chicken necks whole, then pitched a fit when I took him from the food bowl, wanting even more! He was fine, but it's better that they learn to chew their food first before swallowing it.

Once the puppies are doing well with their chicken backs, I add in another protein. I use ground RMBs from Bravo!, starting with the beef blend. I continue to add one new food every few days.

I recommend to their new owners that puppies be fed three meals a day, as follows (the order does not matter):

- Meal one: whole raw meaty bones
- Meal two: meat meal (no bones), eggs, organs, cottage cheese and yogurt, along with veggies, if desired
- Meal three: ½ meat, ½ raw meaty bones (ground or whole)

This diet is half RMBs and half meat and other animal products. The emphasis is on the "meat" in RMBs as well. If chicken necks or backs are the RMB of the day, I recommend adding more meat to this meal to improve the meat to bone ratio. I also suggest the same supplements I use for all my dogs (see above).

With my Rottweiler puppies, I feed 5 percent of their body weight at seven to eight weeks of

age daily, divided into three meals. I then monitor their condition at least weekly, increasing each meal by one ounce when I see a puppy start to look thin. The timing will vary depending on each puppy's activity level and genetics.

By 12 weeks of age, pups need their food increased every one to two weeks, and by six months, usually only monthly increases. By ten months, I am feeding 2 to 3 percent of their estimated adult weight, and no further increases are needed.

I find the body structure of my raw-fed puppies seems to be more solid. I believe they are a little more muscled from putting their front feet on the raw meaty bones and pulling the meat off. Muscles work out while eating!

Comments:

This feeding approach can work for any puppy, but it may be best to wait a week or two after bringing a new puppy home before changing his diet, so that if digestive problems develop due to parasites, disease, or the stress of a new home, you'll know diet is not the cause.

A "prey-model" diet

One style of raw feeding called "prey model" advocates feeding a diet based on whole prey and excluding anything else. This is based on a desire to mimic the diet of the wolf in the wild. Ginny Wilken, of Alameda, California, describes the prey-model diet she has fed Tomo, her 11-year-old, 85-pound American Staffordshire Terrier, since he was four years old:

Tomo had three surgeries for hip and knee problems when he was young, prompting me to seek options to help him. I started with a Billinghurst-style raw diet, which soon morphed into a prey-model approach.

"Prey model" is a concept with wide latitude. Tomo is not fed a strict prey-model diet; I've tailored it to meet his individual needs. I think this diet is well suited to folks with moderately good access to meat sources.

Tomo is a low-activity senior, an easy keeper with definite preferences. He enjoys food, but sees a meal as a social event, and is always happier to eat if someone is watching or sharing. This is sometimes a challenge, as he will turn down

"difficult" meals at home alone that he will gladly tackle in "public."

Here are his diet items:

- Pork neck bones (whole split necks), ribs, shoulder, and shanks
- Turkey parts, including unattached necks
- Chicken and duck (whole or half)
- Lamb necks (whole), heart, and kidney
- Goat (six-way cut)
- Meaty chunks of beef, lamb, pork, and venison
- Raw eggs, free-range (home grown)
- Organic or natural beef liver, heart, and kidney
- Green tripe, cow gullets, and tracheas (from greentripe.com)
- Chicken feet
- Pork brains, spleen, and pancreas
- Whole small fishes, like smelt or sardines
- Intact heads or whole animals, when available
- Homemade soups from all varieties of bones
- My table scraps or "shares," just meat, fish, and vegetables (only broccoli and greens, and only with fat on it)
- Timberwolf salmon oil

I buy food from butchers, Asian markets, or wholesale from packers and ranchers. All our food is from quality sources, and much of it is organic or naturally raised.

These days, Tomo can't skip meals, as he needs to take a number of supplements twice a day, including antioxidants for his heart, anti-inflammatories for arthritis, and thyroid

medication. He gets pills in slices of meat or handfuls of tripe or ground beef, usually when I am eating, to make a treat out of it.

Tomo is a very careful chewer, but large pieces may come up and go down a few times to get chomped just right. He has never choked on food. I don't fast him, but I do feed a bountiful day, followed by one or more lean days. He averages 1½ pounds of food a day, with a higher percentage of bone than is common with a prey-model diet. This regulates his digestion, which tends toward quick and loose.

I saw lots of positive changes. First, he ate, without being picky! Then I noticed that fleas no longer bothered him. His skin and ear problems cleared up quite a bit, though not entirely. His breath and coat improved, and his digestion became much more consistent. He became less manic, and easier to train and handle. His hips seemed to bother him less. Eight years later, I'm still very happy with his diet.

Comments:

It's important when following the prey-model style to feed a wide variety of foods, as shown here, not just meat and bones, and not just one or two meat sources. Tomo's diet also demonstrates how supplements can be used appropriately.

Getting started

All those who shared their diets with us have fed a raw diet for a long time, and we've become quite relaxed about it. Believe me, we all suffer anxiety attacks the first time we hand our dogs a raw meaty bone. It's hard to overcome the warnings we've received all our lives about giving bones (especially chicken bones) to dogs. Remember, though, that those warnings apply to cooked bones.

Most dogs handle raw bones without a problem, especially if they are careful chewers. However, if you have a dog who tends to gulp his food, or if you just don't feel comfortable feeding whole bones, you can still feed ground or cut-up raw meaty bones, and can give recreational bones instead for chewing pleasure and dental health.

Most of us who feed a raw diet have seen a variety of health improvements in our dogs, including cleaner teeth, healthier coat and skin, less problem with fleas and allergies, better

muscle tone, and increased vitality. As always, however, if your dog has any problems, it's a good idea to try changing what you feed. If you see an improvement after making a change, that points to a nutritional problem, either due to excesses or deficiencies in the diet, or to an allergy to one or more ingredients. No matter what style of diet you feed, the cardinal rule is to always do what works for your dog.

Mary Straus is the owner of DogAware.com. She and her Norwich Terrier, Ella, live in the San Francisco Bay Area.