

Natural Diet for Dogs: Guidelines for Optimal Nutrition

Jeffrey Levy, D.V.M., P.C.H.

Classical Veterinary Homeopathy
71 Ashfield Road
Williamsburg, Massachusetts 01096
(413) 268-3000
www.homeovet.net

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dedicated to Keylor and Quercus
my teachers and good pals
and to all of the dogs who have taught me how to help them

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Introduction

You now have the opportunity to make high quality, simple, wholesome, unprocessed food for your dog. The information provided here gives you a framework; from it you can select and refine a healthy diet for your dog that fits your lifestyle. The diet is designed to be practical, flexible, and economical.

The purpose of the diet is to improve your dog's health. In the long run, this plan will save you money on veterinary bills and allow your dog to live a longer, healthier and happier life.

This section explains the name of the diet and describes the guidelines for and benefits of the diet.

Name of the Diet

The name of the program is: *Natural Diet for Dogs: Guidelines for Optimal Nutrition*. I chose this title with care, as I will explain.

Natural: The diet described in this booklet reflects what dogs have been eating for eons. It uses the natural state of dogs in the wild as a model, while also allowing for the effects of domestication on dogs.

Dogs: This diet is formulated specifically for dogs and their particular digestive physiology. For example, dogs do not chew their food effectively. Dogs' teeth are designed for cutting and tearing, not for chewing and grinding, as are humans' teeth. A dog's stomach comprises 60% of the digestive tract volume (as compared to 15% in people) and does the 'chewing' our teeth do for us.

Consider that if a 30 pound dog eats 4 cups of food, on a pound for pound basis this is equivalent to a 150 pound person eating 5 quarts of food in a sitting. In the wild, dogs gorge on hunted prey, lie around for a day or so, and then hunt again. So you can see that dogs, relative to people, have very large stomachs, designed for larger, less frequent meals. It is best to feed your dog no more than once a day and to remove food between meals.

Furthermore, protein digestion takes place in the stomach. Dogs require a much higher percentage of protein in their diet than do humans, particularly in the form of raw meat. Raw meat is a natural part of the canine diet, and should not be omitted

Guidelines: These are only guidelines. The plan is not meant to be rigid. It is flexible and encourages variety. In fact, there are more similarities than differences between human and canine nutrition. Just use common sense.

Optimal: This booklet describes the best possible diet to feed your dog. However, you do not have to do everything that is suggested here. Your dog will appreciate whatever you do to improve the quality of his or her diet.

General Guidelines

Here are some general guidelines to follow for feeding your dog.

- Feed one meal per day, preferable in the evening, but consider feeding your dog when he or she likes to eat. Puppies, pregnant or nursing females, and older dogs should be fed more frequently. (See the section Special Situations.)

- Allow your dog to eat for a finite time, one to two hours at the most. Then remove all food. Adult dogs benefit from a prolonged time between meals.

- Serve your dog's food at room temperature or warm. One way to do this is to heat the grains, and then add the other components.

- Feed your dog a variety of the foods listed.

- Provide spring or purified water rather than tap water.

- Use stainless steel or glass bowls and utensils. Do not use aluminum in any form, including foil, because it can leave toxic residues in the food.

- Use a food processor or blender to thoroughly puree the vegetables.

- Fast your healthy adult dog one day per week, preferably the same day each week. Your dog will come to expect it and will not interpret the fast as punishment. Give no solid food, but provide fresh water, or chicken or beef broth. At first, choose an evening when you are home so you can give plenty of attention and reassurance.

The following morning would be a good time for wheat grass juice (1 to 2 teaspoons) or herbal capsules or tablets such as Natural Rearing Herbal Compound Tablets. These supplements are not at all necessary, but are helpful in promoting the metabolic cleansing that takes place during a fast.

Benefits of the Natural Diet

This diet requires a bit of time and planning, but the benefits are many. Time and again, dog owners have been amazed at their dogs' increased vigor and robust health after switching to a natural diet. Their dogs' coats shine, their eyes sparkle, and many relatively minor health problems, such as fleas, and skin and dental problems, improve or disappear. The time and personal energy you spend preparing your dog's meals are a gift of great value and a true measure of your love.

This program describes an approach to preparing a homemade diet for dogs who are basically healthy. It is perfectly appropriate without modification for many dogs with relatively minor health problems. There are many situations, however, where a serious medical condition requires modifications in the diet. I am not attempting here to address that type of situation.

In addition, there are many aspects to a natural or holistic approach to canine health care other than diet. For information on a wider range of topics in this area, or for more detailed information on dietary modifications for more serious medical conditions, I suggest that you refer to Dr. Pitcairn's book (see Appendix A: References).

The Basic Meal Plan

This section describes the basic meal plan to feed a healthy adult dog. For information about puppies, pregnant or nursing females, and older dogs, see the section entitled Special Situations.

Overview

The basic meal plan consists of four components:

1. Protein: 25-40% of the diet by volume
2. Carbohydrates: 45-55% of the diet by volume
3. Vegetables: 15-25% of the diet by volume
4. Supplements

For example, if your 30-pound dog eats about 4 cups of food daily, then there should be about 1-1.5 cups of protein, 1.75-2.25 cups of carbohydrate, and 0.6-1 cup of pureed vegetables.

For protein, carbohydrates, and vegetables, you can select one or more foods for each meal, as described below. Choose more frequently from the foods at the top of each of the following lists because those sources are higher in quality. However, do not ignore the other food sources for each group. Variety is good for your dog.

Protein

Protein should be 25% to 40% of the daily diet by volume. Table 1 gives an approximation of what your dog's protein sources should average out to on a weekly basis:

Table 1. Proportions of Weekly Protein

<u>Protein Source</u>	<u>Proportion of Weekly Protein</u>
Combined raw meat, organ meats and fish	1/2 - 1
Raw eggs, dairy and soy protein	0 - 1/2

Feed one or two protein sources daily, with meat and/or organ meat on most days. Variety is good.

The following sections give more detail about serving your dog raw meat, fish, eggs, dairy, and soy.

Raw Meat

Raw meat is a very important natural source of protein. Dogs have evolved eating raw meat. They would never cook their meat for themselves, and there is no good reason for us to cook it for them. Cooking changes meat in a very fundamental way (tertiary structure of the protein), and greatly reduces its nutritional benefit to dogs.

Organically raised meat is best. Trim the visible fat from beef because beef cattle are treated with drugs and chemicals that can be stored in the fat. Cut the meat into chunks.

Some people have concerns that their dogs may get salmonella poisoning from eating raw poultry or eggs. Dogs are not susceptible to salmonella poisoning as people are, so it is perfectly safe to feed raw chicken and eggs.

Your dog cannot get worms from eating raw meat. There is a type of tapeworm that can be encysted in raw fish, but this is quite rare, and is further relatively harmless and easy to treat. This poses no threat to your dog's health.

Another common concern is about the danger of feeding poultry bones. *As long as they are uncooked*, they are perfectly safe, and are an excellent natural source of calcium and other minerals, as well as the nutrients in the bone marrow. Only *cooked* poultry bones can splinter and harm your dog. When cutting up chicken or rabbit, you can either leave them whole, or break the long bones into a manageable size (about 1 inch) using a heavy knife or cleaver. Another benefit of feeding poultry bones is that it exercises the jaws and helps keep the molars (back teeth) free of dental calculus.

Make your choices from the following list:

1. Beef
2. Chicken or turkey
3. Rabbit
4. Venison

Note: Do not feed ground meat, pork products, lamb, or processed meats such as hot dogs or luncheon meats. There is a possibility that your dog could get dangerous parasites from raw pork or lamb, and I have found that feeding ground meat of any kind can exacerbate a wide variety of health problems.

Raw Organ Meats

Raw organ meats are nutritionally excellent and relatively inexpensive. Again, organically raised meat is best. Choose from the following:

1. Chicken or calf liver
2. Beef liver (only if organically raised)
3. Heart (beef or chicken)
4. Gizzards
5. Kidney
6. Tripe

Note: Feed your dog only organic beef liver due to the chemicals, hormones, and heavy metal residues found in the livers of non-organically raised beef.

Fish

Fish is a good source of high quality protein. You can feed fish organs as well as the flesh. Raw fish is best, but cooked is also acceptable. For an economical source of fish, you can ask your butcher for fish scraps, which are the head, tail, and backbone with meat, sometimes available free of charge. Lightly steam or bake the fish just enough to get the flesh off the bones. Frozen bulk fish filets and frozen squid (calimari) are other good inexpensive sources. It is all right to feed small bones, but remove any larger bones that could get caught in the throat.

Eggs

Eggs contain very high quality protein, but because they are quite rich, they should comprise no more than about one-sixth of your dog's weekly protein. Exceptions would be puppies, older dogs, and pregnant or nursing females, who can be fed eggs in larger amounts (see the section Special Situations). It is best to feed the eggs raw.

Dairy

Raw, unpasteurized dairy products are best. The following are good choices:

1. Cottage cheese (can be purchased in pints or quarts and frozen)
2. Ricotta cheese (can be purchased in pints or quarts and frozen)
3. Yogurt (use in moderation because it has lower quality protein and is more watery)

Soy

Soy products contain medium quality protein, and should be fed in moderation. Feed more dairy than soy. They can be steamed, baked, or fed raw.

1. Tempeh (can be kept in the freezer)
2. Tofu (should be kept in the refrigerator covered with water; change water daily)
3. TVP (textured vegetable protein)

Carbohydrates

Carbohydrates should comprise 45% to 55% of the daily diet by volume. Again, organic sources are best. Carbohydrates are divided into (1) major sources, (2) minor sources, and (3) beans and legumes.

1) Major Carbohydrate Sources

There are three major sources of carbohydrates: whole grains, rolled grains, and cracked grains. Whole grains and rolled grains should be fed more than cracked grains.

- Whole grains

Pressure-cooked whole grains are the best carbohydrate source for your dog. Use a little extra water, and cook the grains an extra 10 minutes. Mash or puree them since dogs cannot digest the hulls of these grains.

1. Brown rice (can be fed every day without variation)
2. Millet (especially good for older dogs)
3. Buckwheat (especially good for older dogs)
4. Barley (especially good for dogs with kidney problems)

- Rolled Grains

Rolled grains take less cooking time and do not need mashing. Pour boiling water over them, cover and let cool before serving. Alternatively, you can cover the grains with water, bring to a boil, and then allow them to cool.

1. Rolled oats
2. Wheat flakes
3. Rye Flakes
4. Barley flakes
5. Triticale flakes

- Cracked Grains

1. Bulgur
2. Cracked wheat
3. Multigrain cereals

2) Minor Carbohydrate Sources

There are three minor sources of carbohydrates: starchy vegetables, whole grain pasta, and whole grain bread and crackers.

- **Starchy Vegetables**

Steam or bake. In general, use them for no more than one half of the carbohydrates.

1. Potatoes (include the skins)
2. Winter squash
3. Turnips
4. Parsnips
5. Yams
6. Fresh corn

- **Whole Grain Pasta**

Any type is good. In general, use them for no more than one half of the carbohydrates.

- **Whole Grain Bread or Crackers**

Use stale or toasted bread or crackers. Store them in a paper bag at room temperature or in the freezer and use them as needed to supplement other carbohydrate sources.

3) Beans and Legumes

The protein in beans complements the protein in grains to make a higher quality protein. Use approximately 1 part beans or legumes to 5 parts grains, or 10-20% beans and 80-90% grains. The combination of beans and grains is especially beneficial to puppies, older dogs, and pregnant or nursing females. It is also desirable for dogs with liver or kidney problems because the resulting higher quality protein requires less work of these organs.

You can cook beans and legumes in quantity and freeze in small containers in quantities sufficient for 1, 2, or 3 days. Once thawed, you can store them in the refrigerator for 2-3 days. Mash beans and legumes before serving. Choose from the following:

1. Aduki beans
2. Black beans
3. Kidney beans
4. Pinto beans
5. Split peas and lentils

Note: Leave beans out of the diet if they produce flatulence in your dog.

Vegetables

Vegetables (combined with the supplements described in the next section) should be approximately 15% to 25% of the daily diet by volume. Again, organic sources are best.

Dogs in the wild get their vegetable matter from the stomach and intestines of their prey. This has been chewed and partially digested for the dog. To approximate this natural food source, steam the vegetables and thoroughly puree them in a food processor or blender, using only as much water from the steaming pot as necessary to puree. Steaming breaks down the cell walls in the vegetables and makes the nutrients available to your dog, and pureeing substitutes for chewing. Remember that dogs do not chew their food well.

You can make a larger quantity and freeze it in quantities sufficient for 2-3 days in a flexible container. Leave some headroom in the container for the vegetable to expand as they freeze.

Vegetables are divided into two groups: (1) root, stalk and fruit vegetables and (2) green leafy vegetables. Feed your dog a variety of vegetables, mixing the heavier root vegetables with the lighter leafy vegetables.

Root, Stalk, and Fruit Vegetables

These should comprise approximately 70% of the vegetables you serve your dog. Generally, winter vegetables are most yang and summer vegetables are most yin. The following vegetables are listed from most heavy to most light. Choose a variety.

1. Carrots
2. Beets (strong flavor, so use sparingly)
3. Onions (must be thoroughly cooked because raw onions are toxic to dogs)
4. Broccoli
5. Cauliflower
6. Asparagus
7. Cabbage
8. Green beans
9. Peas
10. Celery
11. Zucchini
12. Summer squash

Green Leafy Vegetables

These should comprise approximately 30% by volume of the vegetables you serve your dog. This is *after* they have been steamed.

1. Spinach
2. Chard
3. Beet greens
4. Endive
5. Collards
6. Kale
7. Celery greens

Note: Avoid tomatoes, eggplants and peppers as they are not appropriate foods for dogs. They are members of the nightshade family (Solanum) and contain alkaloids that are best avoided.

Supplements

The supplements described below contain vitamins, minerals, cofactors and unidentified factors. These are natural foods rich in nutrients and make up for what is lacking in commercial food due to modern farming and cattle raising methods. For example, seed stocks are manipulated to increase yield and maximize disease resistance, not for nutritional value. Fresh produce today does not contain the nutrients it once had. The clinical results of using the following supplements have proven their value for your dog.

Supplements consist of (1) VitaPowder, (2) oils, (3) raw vegetables and miso. Supplements can be added on a daily basis or mixed with the vegetables. If you mix the vegetables and supplements, add the supplements to the cooked and blended vegetables after the vegetables have cooled. The amounts given in the tables below should be followed as closely as possible, but being off by a little bit is okay.

VitaPowder

VitaPowder consists of the following ingredients that you mix together yourself:

1. Nutritional Yeast Flakes

Yeast flakes contain high levels of B vitamins and minerals, including chromium, also known as glucose tolerance factor, which is important in glucose metabolism. Helps reduce susceptibility to fleas.

2. Wheat, Rice or Oat Bran

Bran contains minerals and B vitamins and is a good source of fiber.

3. Kelp Powder (or other sea vegetables)

Kelp is an excellent source of minerals.

4. Alfalfa Powder

Alfalfa powder is another excellent source of minerals and helps to balance the body's energy metabolism. The combination of kelp, a sea-based mineral source, and alfalfa, a land-based mineral source, provides an optimal balance of macro- and micro-minerals.

You can find alfalfa powder at health food stores, herb stores and natural food markets. **Note:** Do not use alfalfa meal, as it is not ground finely enough to be easily digested and absorbed.

5. Lecithin Granules

Lecithin contains choline and inositol necessary for the production of neurotransmitters and hormone precursors, and for cholesterol metabolism.

6. Vitamin C

Dogs are able to produce vitamin C, but not in sufficient quantities for all the body's needs. Whereas vitamin C can be used therapeutically in higher doses, the amounts given here are for daily maintenance. Mineral ascorbates (calcium ascorbate, sodium ascorbate, etc.) are best, due to the lack of sour flavor, but straight ascorbic acid is fine, too. It is best to get a vitamin C supplement with rutin, hesperidin, and bioflavonoids. It is easier to buy a powdered preparation, or you can crush tablets.

7. Zinc Gluconate (optional)

Zinc helps with some skin problems and is sometimes lacking in the diet. It is not critical for your dog's health, but is beneficial either as a regular or occasional supplement. Use crushed tablets.

8. Bone Meal Powder, Crushed Eggshells, or Crushed Oyster Shell

These are sources of calcium, and are very important for balancing the ratio of calcium to phosphorus in the diet. Dogs in the wild get their calcium primarily from eating the bones of their prey and phosphorus primarily from the meat. Your dog gets calcium from the bone meal you provide; the more meat in the diet, the more bone meal you should add. The more chicken and fish bones you give your dog, the less bone meal is needed.

You can use any combination of the three calcium sources. For bone meal powder, I recommend Schiff Bone-All Powder. To prepare eggshells: rinse off any egg residue, bake for 10 minutes at 250° to dry them, and then grind them into small chips. If you use a food processor or blender to grind the eggshells, be aware that this can dull the blades. Alternatively, you can use a mortar and pestle or a rolling pin.

Table 2 shows the daily amounts to give a 30-pound dog of the individual VitaPowder ingredients. If your dog weighs less than, or more than, 30 pounds, adjust the amounts accordingly (see Table 7).

It is much more convenient to make up a batch of VitaPowder. Table 2 also provides the recipe for a larger supply (approximately 12 days) of VitaPowder. See Table 3 to determine the daily amount of VitaPowder that you should give your dog.

Table 2. Daily Amounts of VitaPowder Ingredients (30 Pound Dog) and Recipe for Batch

<u>VitaPowder Ingredients</u>	<u>Daily Amount</u>	<u>Batch</u>
Nutritional Yeast Flakes	1 1/3 Tbs.	1 cup
Wheat, Rice or Oat Bran	1 Tbs.	3/4 cup
Kelp Powder	1 tsp.	1/4 cup
Alfalfa Powder	1 tsp.	1/4 cup
Lecithin Granules	1 tsp.	1/4 cup
Vitamin C	150-200 mg.	1800-2400 mg.
Zinc Gluconate	8-12 mg.	100-150 mg.
Crushed Eggshells	3/4 - 1 1/2 tsp.	3-6 Tbs.

Table 3. Daily Amounts of VitaPowder by Body Weight

<u>Dog's Weight</u>	<u>Daily Amount of VitaPowder</u>
5-10 pounds	2 Tbs.
15 pounds	3 Tbs.
30 pounds	4 Tbs. (1/4 cup)
65 pounds	8 Tbs. (1/2 cup)
100 pounds	12 Tbs. (3/4 cup)
125 pounds	14 Tbs.

Oils

Dogs need fats and oils in their diet. Table 5 shows the daily amounts of the various oils to feed your dog. Decrease the amount of vegetable oil if your dog is overweight.

- **Vegetable Oils**

Cold pressed unfiltered oils are best. I prefer olive oil, which can be combined with sesame, safflower, canola, or corn oil. Avoid highly refined oils such as Wesson or Crisco.

- **Cod Liver Oil**

Cod liver oil supplies vitamins A and D. Buy only the unflavored type, and store in the refrigerator. If your dog does not like the flavor, start with smaller amounts and build up to the amounts given in Table 5.

- **Vitamin E**

The simplest way to give vitamin E is to buy a bottle of unencapsulated oil. Alternatively, you can buy capsules, puncture them, and squeeze out the oil into the food. Synthetic vitamin E is fine.

Note: Do not give much more than the amounts stated in Table 5 for cod liver oil and vitamin E because vitamins A, D and E are fat soluble and are stored in your dog's body. Excessive supplementation can lead to toxicity.

Table 5. Daily Amounts of Oils by Dog's Body Weight

<u>Dog's Weight</u>	<u>Vegetable Oil</u>	<u>Cod Liver Oil</u>	<u>Vitamin E</u>
5-10 pounds	1/2 Tbs.	1/4 tsp.	100 IU
15 pounds	3/4 Tbs.	3/8 tsp.	150 IU
30 pounds	1 Tbs.	1/2 tsp.	200 IU
65 pounds	2 Tbs.	1 tsp.	400 IU
100 pounds	3 Tbs.	1 1/2 tsp.	800 IU
125 pounds	3 1/2 Tbs.	1 3/4 tsp.	1000 IU

Raw Vegetables and Miso

Puree with the cooked vegetables after they have cooled. See Table 6 for daily quantities of garlic, parsley, sprouts and miso. Given the relatively small quantities involved, the amounts given are quite approximate. While all of these supplements are beneficial, they are somewhat optional, so you may leave any of them out sometimes.

- Fresh Garlic

Garlic helps with fleas and intestinal parasites, and is very good for the liver.

- Fresh Parsley

Aside from providing certain important minerals, parsley helps minimize the palatability problems of fresh garlic. You may substitute dandelion greens, wheat grass, or watercress. If you are feeding extra garlic, increase the parsley proportionally.

- Sprouts

Alfalfa sprouts are best, but mung bean sprouts, aduki bean sprouts, buckwheat sprouts and many others are also fine. Do not use radish sprouts, as they are too pungent for most dogs. The quantities given in the table are after pureeing.

- Miso

Miso is a fermented soy product that, among its other benefits, is good for the kidneys. Use one of the dark brown varieties, preferably unpasteurized. Since miso is very concentrated, the amounts given in Table 6 are the *maximum* to feed your dog.

Table 6. Approximate Daily Amounts of Raw Vegetable and Miso by Body Weight

<u>Dog's Weight</u>	<u>Raw Garlic</u>	<u>Raw Parsley</u>	<u>Sprouts</u>	<u>Miso</u>
5-10 pounds	1/2 clove	3/4 tsp.	3/4 tsp.	1/2 tsp.
15 pounds	1 clove	1 tsp.	1 tsp.	3/4 tsp.
30 pounds	1-2 cloves	1-2 tsp.	1-2 tsp.	1 tsp.
65 pounds	2-4 cloves	2-4 tsp.	2-4 tsp.	2 tsp.
100 pounds	3-6 cloves	4-6 tsp.	4-6 tsp.	3 tsp.
125 pounds	5-7 cloves	5-7 tsp.	5-7 tsp.	3 1/2 tsp.

Table 7. Adjustment of Quantities of Supplements and Other Foods for Body Weight

<u>Dog's Weight</u>	<u>Adjustment factor</u> (multiply amount by)
5-10 pounds	1/2
15 pounds	3/4
30 pounds	1
65 pounds	2
100 pounds	3
125 pounds	3 1/2

Other Foods

This is a partial list of optional foods that you can add to the diet on an occasional or regular basis. The amounts, where given, are for an 30 pound dog and you should adjust them up or down based upon your dog's weight (see Table 7).

Nut Butters and Seeds

Kyolic Garlic Capsules or Garlic and Parsley Oil Capsules

Wheat grass juice, Spirulina powder or Barley Green

SOD

Evening Primrose Oil

Flax seed or Psyllium seed

Super Blue Green Algae

Glandular supplements

Bee Pollen and Royal Jelly

Other commercial supplements

- **Nut Butters and Seeds**

Include tahini, cashew or almond butter, and sesame seeds. They are high in oil and calories, and so are best suited to slim dogs. Grind or blend seeds thoroughly. Feed up to 2 tablespoons of nut butter or 4 tablespoons of ground seeds. Store in refrigerator so oils do not become rancid.

- **Kyolic Garlic Capsules or Garlic and Parsley Oil Capsules**

Give 1-2 capsules once or twice daily. Helpful for flea problems, liver congestion, worms, infections, and bronchial congestion. Can be used as a substitute for fresh garlic in a pinch.

- **Wheat grass juice, Spirulina powder or Barley Green**

These are high in chlorophyll, minerals, and certain enzymes and cofactors. They are not necessary but may provide some benefits for your dog. You can give 2-3 teaspoons on a fast day, or up to 1 teaspoon daily.

- **SOD (Superoxide dismutase and catalase enzyme complex)**

This is an antioxidant enzyme complex derived from wheat grass sprouts. It is often very beneficial for chronic inflammatory conditions, such as arthritis, as well as for older dogs. I recommend BioGuard granules, made by BioGenetics. Follow label directions, giving it away from meals mixed with a small amount of food.

A related product called Canine Balance provides the same benefits plus what I can only describe as a boost to the immune system. I recommend this in preference to BioGuard for dogs who are sick, especially if there is a poor appetite. Give one tablet once or twice daily, away from meals. It is easier to administer if you coat the tablet with butter or oil.

- **Evening Primrose Oil**

High in gamma-linoleic acid and other essential fatty acids, which can be helpful in certain skin conditions. Give 1/4 to 1/2 teaspoon or 1-2 capsule daily to weekly.

- **Flax Seed or Psyllium Seed**

As natural bulk laxatives, these add fiber to the diet, which can help dogs who tend toward constipation and dry, hard stools. Grind the seeds well, and add 1-2 teaspoons to the meal.

- **Super Blue Green Algae**

Great claims have been made as to the wide-ranging benefits of this product. I believe that its primary benefits are similar to those of wheat grass or spirulina as a source of minerals, enzymes and cofactors. In addition, it seems to stimulate the body's energy metabolism, and so may be beneficial to dogs that are overweight and/or sluggish. Give 1/2 teaspoon daily.

- **Glandular Supplements**

There are a wide variety of these available from companies such as Standard Process. They are intended to support particular organs, glands, and other tissues by providing extracts of those tissues from animal sources. They are sometimes combined with vitamins and/or minerals that are important for the proper function of the particular tissue in question. For example, a dog with hypothyroidism might be given a thyroid glandular combined with kelp as a source of iodine.

I used glandular supplements extensively in the past, and found them to be of mild benefit at best. However, since I believe that they are quite harmless (assuming that they contain no hormone residues), I list them here as an option for supplementation.

- **Bee Pollen and Royal Jelly**

Each of these may be of some benefit, but probably not enough to justify the cost.

- **Other Commercial Supplements**

There are a variety of high quality products available for supplementation of protein, fatty acids, vitamins, minerals and/or other nutrients. When used judiciously, these can be of value. However, be careful to maintain the proper proportions of protein, carbohydrate and fat, and not to supplement any nutrient excessively.

Preparation Tips

This section gives some timesaving preparation tips.

Despite how it may appear at this point, this natural diet need not take much time to prepare. It is certainly more of an effort than scooping dry dog food out of a bag or opening a can, but consider how much you would enjoy eating Frosted Flakes and Spam every day. The long-term health cost of feeding a highly processed convenience food makes this natural diet well worth the hour or so a week it takes to prepare honest, wholesome food.

On a daily basis, you have only three components to put in a food dish: (1) protein, (2) vegetables with supplements, and (3) carbohydrates (grains). When cooking grains or vegetables for yourself, you can make extra for the dog. You can offer your dog leftovers from your own meals, keeping in mind the proportions of protein, carbohydrates, fats and vegetables. When feeding something to which your dog is not accustomed, feed a small amount at first. Avoid deep-fried or spicy foods.

Daily Food Volume

There is no ‘normal’ amount of food that a dog of a particular weight eats daily. What is normal for a particular dog varies with lifestyle (e.g., exercise), metabolism, climate, and many other factors. You should determine empirically the proper amount to feed your dog. If your dog is overweight, you should feed less; if your dog is thin, you should feed more.

Once you figure out through trial and error about how much your dog should eat per day, you can determine the proper quantities for preparing protein and vegetables with supplements (and grains, if you choose) in bulk while maintaining the proper proportions of the diet (for example, 30% protein, 20% vegetables with supplements, and 50% grains).

Since this diet is made from natural wholesome ingredients, it is not necessary to be very precise in measuring the main components of the diet. Close is good enough. Nutritional problems will arise only if you are far off for a long time. When it comes to the supplements, such as VitaPowder and oils, a little more care is needed in measuring the ingredients, since these are more concentrated foods and there is less leeway for inaccuracy.

• Protein

There is a great deal of flexibility in this diet. You can feed meat and fish as the sole sources of protein, or you can include organ meats. You can supplement the meat, fish, and organ meats with eggs, dairy or soy protein on a daily or occasional basis. You can feed one or two protein sources per meal, varying from day to day, or combine a larger number of protein sources when making a larger batch.

Buy one type or a variety of protein sources, such as beef, poultry, liver, or fish. Cut into chunks, and put separately or combined into plastic bags or containers to freeze. You can freeze enough for one, two or three days in one container. If you will be adding eggs, dairy or soy at the time of meal preparation, decrease the quantity of meat a bit to allow for the other protein.

- **Carbohydrates (Grains and Beans)**

Again, there are many ways you can prepare this part of the diet. If you are using whole grains, you will probably want to prepare a quantity sufficient for 3 days at a time, and store it in the refrigerator. Alternatively, you can use any whole grains that you have prepared for your own meal. In either case, whole grains must be mashed or pureed.

Rolled grains are easier in that they cook much more quickly and do not require mashing.

If you are combining beans with the grains, it is simplest to combine the two in advance in a quantity sufficient for 2 or 3 days and keep it in the refrigerator, or in a larger quantity that you can freeze in quantities sufficient for 2 or 3 days.

- **Vegetables and Supplements**

The simplest way to do this is to add the oils and VitaPowder to the pureed vegetables. Alternatively, you may add the oils and/or the VitaPowder to the meal on a daily basis, using the quantities from Tables 4 and 5.

Steam the vegetables, then puree them in a food processor or blender using just enough water from the steaming pot to get them pureed. Measure the pureed vegetables to determine approximately how many days worth you have. Once they have cooled, put a small quantity of the pureed vegetable back into the food processor, add the appropriate quantities of oils, VitaPowder, raw vegetables and miso (see Tables 4, 5, and 6), and puree again. Mix this back in with the rest of the pureed vegetables.

You can freeze the pureed vegetables with supplements in quantities sufficient for 1, 2, or 3 days. If you use a plastic container, be sure to leave some headroom in the containers, since the vegetables will expand as they freeze.

Putting it all together

As should be apparent by now, there are many ways that you could choose to put your dog's meal together on a daily basis. The method given here is an example, and you can improvise based on what works best for you. I have found that, with the advance preparation steps suggested, it should take no more than five minutes to prepare the daily meal.

To prepare the daily meal:

1. Take the frozen meat and frozen vegetable-supplement puree out of the freezer in advance, giving them time to thaw. To thaw more quickly, you can put frozen food in a sealed plastic bag in warm water, or use a microwave oven on the defrost setting. When thawing frozen meat in a microwave oven, be careful not to allow the meat to cook. This is particularly important in the case of poultry bones. You can wrap a small piece of aluminum foil around the end of the drumstick to keep it from becoming cooked.
2. Measure out and warm up your dog's daily amount of grains (and beans, if included), or cook the grains and allow them to cool.
3. Add the thawed meat and vegetable-supplement puree, and any other protein sources or additional ingredients you wish to include.
4. Stir and serve.

Transition to the Natural Diet

This section covers how to make the transition from your dog's current diet to the natural diet. There are two basic approaches to making the switch: (1) the ultimatum, and (2) the gradual method. You can approach the dietary change as quickly or as slowly as you choose. Most dogs take to the new diet right away, and so the ultimatum is usually the method of choice. Use your judgment and decide what is best for you and your dog.

The Ultimatum

Simply make the switch to a natural diet, giving one-half the amount of food your dog normally eats. If your dog refuses the natural diet, don't fret. Just call it a fast day and try again the next day. Don't worry. Your dog will not starve! When your dog gets hungry enough, he or she will eat. Since much in the way of food preference is learned, your dog may not at first appreciate your efforts, but your patience and perseverance will be rewarded.

The Gradual Method

This approach takes more time and trouble, but may be more appropriate for dogs that are not good eaters. Start by adding half the recommended amount of VitaPowder to the current (presumably commercial) diet. Increase the amount daily for 3-5 days until your dog is eating the recommended amount. At this point you can start adding a small amount of raw meat as well. Next, start adding half the recommended amount of cod liver oil, and again increase daily to the recommended amount. Once your dog is eating the recommended amounts of these supplements, the next step is to start making the complete natural diet and mixing it with the commercial dog food. At first give your dog 75% commercial food and 25% natural food. The next day, give 50% commercial food and 50% natural food. The next day, give 75% natural food and 25% commercial food. Finally, eliminate the commercial food altogether.

You can implement the gradual method more quickly or more slowly, and you can improvise your own method anywhere between the two given here. Just use common sense, and listen to what your dog is telling you.

Special Situations

This section gives recommendations for feeding your dog in the following situations: (1) while you and your dog are traveling, (2) while your dog is pregnant or nursing, (3) while your puppy is growing, and (4) when your dog is older.

Feeding Your Dog On the Road

When you know you will be traveling with your dog and you will not be able to keep food refrigerated, buy some canned commercial food such as Cornucopia or Nature's Recipe. You can begin feeding the canned food a few days before the trip to acclimate your dog to the commercial food.

Add to the canned food:

- 1/2 the normal amount of VitaPowder
- a little extra protein (preferably raw meat)
- a cod liver oil capsule (optional)
- a 100 IU vitamin E capsule (optional)

Feeding Your Pregnant or Nursing Dog

Pregnancy and lactation place a tremendous metabolic stress on your dog. During this time, your dog will need much more food and higher proportions of protein, oils, and minerals, especially calcium and phosphorus. Feed as much as your dog will eat in 1/2 hour. Gradually increase the VitaPowder to one half again the normal amount by the seventh week of pregnancy. Other supplements that are especially valuable during this time are garlic, alfalfa, red raspberry leaves during pregnancy, and slippery elm during nursing.

Pregnancy lasts approximately 9 weeks, or 3 trimesters of 3 weeks each. The feeding regimen should be:

First trimester (0 to 3 weeks): feed once daily, and fast a full day once a week (the same as usual).

Second Trimester (4 to 6 weeks): feed twice daily, and fast 1/2 day twice weekly.

Third Trimester (7 to 9 weeks): feed three times daily, and do not fast.

Feeding Your Puppy

Begin the weaning process at 4 weeks of age, giving 6 to 8 small meals daily. Rolled oats or barley flakes are the best starter grains. Give high quality protein such as eggs, goat's milk, and small amounts of meat and liver. Complete weaning by 8 weeks of age when the puppies should be getting 3 to 4 meals a day. At 4 months, give 2 meals daily and fast 1/2 day weekly. At 8 months, give one meal daily and fast a full day weekly.

Feeding Your Older Dog

Some dogs, as they reach their elder years, need two smaller meals daily instead of one larger meal. These seniors also may have difficulty with a full day's fast, so you can fast a half day twice weekly.

Beyond Optimal Nutrition

I am confident that you will see for yourself the benefits to your dog of feeding a natural diet. Yet diet is only one of many factors that influence your dog's health. Regular exercise, grooming, and plenty of love and attention are also quite important.

There are many types of health problems that are not completely responsive to nutritional measures. There are subtle disorders, susceptibilities, and constitutional weaknesses that many puppies and kittens inherit from their parents, or acquire as a result of vaccination, drug treatment, and/or exposure to toxic chemicals, such as flea control products. These types of chronic constitutional problems tend to progress with time, eventually leading to the development of overt symptoms.

For these deeper problems that cannot be cured through improved nutrition alone, I recommend homeopathic treatment. This is, in my experience, the most deeply acting and profoundly curative medical treatment available. It is the foundation of my veterinary practice.

In younger dogs without obvious signs of illness, problems can be recognized in their early stages, and, with appropriate homeopathic treatment, can be corrected before they develop into overt symptoms. This, in my opinion, is the highest level of preventive medicine.

When signs of illness are more overt, homeopathic treatment can be extremely effective in addressing the underlying causes of illness on the deepest level, stimulating a gentle and profound healing response.

In summary, there is much you can do for your dog's health beyond improved nutrition. Still, preparing high quality food for your pet is a first major step toward taking responsibility for your pet's health, toward practicing preventive medicine, and toward a healthier and happier pet.

Appendix A: References

Canine Nutrition and General Care

For more information about caring for your dog, refer to the following books:

1. Richard and Susan Pitcairn, Dr. Pitcairn's Complete Guide to Natural Health for Dogs and Cats, Rodale Press, Emmaus, PA, 1995. This book is the best available on the subject. It is comprehensive, reliable and readable.

2. Joan Harper, The Healthy Dog and Cat Cookbook, E. P. Dutton, New York, 1979.

This book contains many good recipes, ideas, and background information on nutrition. It is available from the author, Route 3, Richland Center, WI 53581.

Homeopathy

There is only one book on veterinary homeopathy that I currently recommend. That is by Don Hamilton, DVM, and is entitled "Homeopathic Care for Cats and Dogs: Small Doses for Small Animals", North Atlantic Books, Berkeley, CA, 1999. I do not recommend such books as by George MacLeod or Christopher Day other than for first-aid treatment of minor problems. This is because they tend toward a 'cookbook' approach to treatment, suggesting this remedy for this symptom, and that remedy for that symptom. Although this approach may show some benefit in the short term, it is usually palliative at best, and is unable to address the root causes of the symptoms. The best application of homeopathy is to find the deep-acting remedy that fits the *whole* patient based on the *totality* of symptoms. In short, homeopathy is most beneficial when used to treat patients, not individual symptoms.

Since the theory and principles are the same regardless of the species of the patient, I would recommend one of the following books for a basic explanation and general information on homeopathy:

1. George Vithoulkas, Homeopathy: Medicine for the New Man, Arco Publishing, New York, 1979.

2. Dana Ullman, Consumer's Guide to Homeopathy, Tarcher/Putnam, New York, 1996

3. Dana Ullman, Discovering Homeopathy: Medicine for the 21st Century, North Atlantic, Berkeley, CA, 1991

For more serious study of homeopathy, I recommend:

4. George Vithoulkas, The Science of Homeopathy, Grove Press, Inc., New York, 1980

Appendix B: Natural Diet in a Nutshell

Proteins: 25 - 40% of the diet

Raw meat, organ meats and fish at least 1/2

Raw eggs, dairy and soy protein up to 1/2

Carbohydrates: 45 - 55% of the diet

Whole grains or grains (80 - 90%) and beans (10 - 20%)

(Starchy vegetables, whole grain pasta, bread, crackers)

Vegetables and supplements: 15 - 25% of the diet

Steamed vegetables

Root, stalk, and fruit about 70%

Green leafy about 30%

Raw vegetables

Garlic, parsley, sprouts, miso See tables for quantities

VitaPowder See tables for quantities

Oils

Vegetable oil, cod liver oil, vitamin E See tables for quantities

Note: All percentages given are by volume.

Notes