

Why a Good Dog Food is Important

Dog Food Brand Comparison Chart Ingredients, Nutrition & Cost and Understanding It.

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Quality dog foods should provide the pet with six basic nutrients necessary to sustain good health. These nutrients include protein, fats, carbohydrates, vitamins, minerals and water. 100% of all the dog's needs should come from its dog food with the exception of water, which needs to be supplemented daily.

Nutrients

Nutrients are chemicals ingested by living organisms that are necessary for survival. The six basic nutrients need by living things are protein, carbohydrate, fat, vitamins, minerals, and water. Fats, carbohydrates, and water are made of carbon, hydrogen, and oxygen molecules in different configurations; proteins include these elements and nitrogen. Minerals are themselves elements; vitamins are complex chemicals of different composition necessary for various life processes.

Protein

Proteins are chemicals made up of other chemicals known as amino acids. Dogs can manufacture some amino acids in their bodies and must be supplied others in their food. Proteins from animal sources -- meat and meat byproducts -- are more complete and easier to extract and digest than proteins from plant sources. Proteins form the enzymes that metabolize food into energy as well as the hormones that guide various body functions. They themselves can also be metabolized to provide energy. High protein feeds are recommended for puppies and working dogs, but too much protein can cause renal (kidney) disease and has been implicated in some temperament problems.

Fats

Fats are probably the most misunderstood of the nutrients, for they are popularly considered the cause of obesity. It's true that a food high in fat will cause obesity in a dog that has a low expenditure of energy, for fats are higher in calorie than either protein or carbohydrates. However, fats are essential for good health, particularly of the skin. Fats increase the palatability of food, provide a media for fat-soluble vitamins, and affect food storage. They also are essential for reproductive efficiency, and kidney function.

Carbohydrates

The source of carbohydrates is an important consideration; corn is the most popular choice, with soybeans a close second. Other sources include rice and wheat, and the Iams Company now has a veterinary formula using potato starch. As long as the carbohydrate source is clean and of good nutritional quality, that is, it does not consist of floor sweepings or come from a poor quality harvest, it probably doesn't matter. Some dogs may be allergic to one or more of these sources, and some dogs may experience bloating or flatulence on soybean formulas, but most dogs do well on most sources of carbohydrate.

Vitamins

Vitamins and minerals are necessary for proper absorption of fats and carbohydrates and for the chemical reactions in the body. Not only do organisms need these nutrients, but they need them in proper amounts and ratios for optimum health. For example, unless calcium and phosphorus are in balance, neither will be properly absorbed or utilized, which can lead to bone or muscle problems. Vitamins are divided into fat-soluble and water-soluble types. Water soluble vitamins are excreted from the body if they are not used; fat soluble vitamins are stored in fatty tissue.

Water-soluble vitamins are the B-complex, including thiamine, riboflavin, pantothenic acid, niacin, pyridoxine, biotin, folic acid, choline, and B12, and C, ascorbic acid. B-vitamins help convert food to energy; C can be manufactured by the dog and supplementation is not necessary. However, some breeders insist that Vitamin C is helpful for dogs that are under stress.



Fat soluble vitamins are A, D, E, and K. They are involved in several body functions, including eyesight, bone formation and strength (with calcium), cell stability, and blood coagulation. Vitamin K can be synthesized by bacteria in the dog's intestine and does not need to be added to the diet under ordinary circumstances. Deficiencies of Vitamin E can cause muscle tissue breakdown, reproductive failure, and impairment of immune response. Vitamin A deficiency can cause several eye problems, including dryness, corneal ulcerations, and inflammation of the conjunctiva. Vitamin D deficiency causes rickets.

Fat soluble vitamins can build up in tissues and become toxic. Excess Vitamin A can lead to bone disease; too much Vitamin D can cause calcification of soft tissue, lungs, and kidneys. Evidence of toxicity in Vitamin E overdose is sketchy; there may be some adverse effects on blood coagulation or thyroid function, but more study is needed to ascertain the extent of such effect.

Minerals

Minerals are essential for bone formation, muscle metabolism, fluid balance, and nervous system function. Minerals are divided into major and trace concentrations.

Preservatives

Preservatives are necessary in foods that contain animal fats to prevent rancidity. The fats used in dry kibble for palatability, a source of fatty acids, and a carrier for fat-soluble vitamins can cause dog food to become toxic if they break down. Dog food manufacturers use several chemicals called antioxidants to prevent that breakdown, including BHA, BHT, ethoxyquin, and Vitamins C and E. Vitamins are used in "all natural" and "organic" feeds. They are more expensive than other chemicals and not as efficient at the job. Foods preserved with vitamins have a shorter shelf life than food preserved with BHA, BHT, and ethoxyquin. BHA and BHT are often used in concert and are Generally Recognized as Safe (GRAS) by the US Food and Drug Administration although very high doses have been implicated as carcinogens in some studies. These are the most common preservatives in human foods. Ethoxyquin is an antioxidant that has come under much criticism in the past few years. Like many chemicals, it comes in several forms. One form is used to prevent breakdown of rubber; another has been used to protect apples from scale insects. Food grade ethoxyquin is used as a preservative in dogs foods.

| Royal Canin BABYDOG 30 | | Royal Canin PUPPY 33 | | Royal Canin ADULT 27 | | Royal Canin YORKSHIRE 28 | | Royal Canin Natural Blend Puppy | | Royal Canin Natural Blend Adult | | Eukanuba Puppy | | Eukanuba Adult Maintenance Small Bite | |
|------------------------|-------|------------------------|-------|------------------------|-------|--------------------------|-------|---------------------------------|-------|---------------------------------|-------|--|-----------|---------------------------------------|-----------|
| 5 Lbs ½ cup | | 5 Lbs 1 cup | | 5 Lbs 2/3 cup | | 5 Lbs ½ cup | | 5 Lbs 2/3 cup | | 5 Lbs ½ cup | | 5 Lbs 1 1/3 cup | | 5 Lbs ½ cup | |
| 15lbs \$32.00 | | 15lbs \$26.00 | | 15lbs \$22.00 | | 15 lbs \$32.00 | | 30lb \$34.00 | | 30lb \$34.00 | | 20 lbs \$24.00 | | 20 lb \$24.00 | |
| Protein | 30.0% | Protein | 33.0% | Protein | 27.0% | Protein | 28.0% | Protein | 28.0% | Protein | 26.0% | Protein | 32.0% | Protein | 25.0% |
| Fat | 22.0% | Fat | 20.0% | Fat | 16.0% | Fat | 18.0% | Fat | 16.0% | Fat | 15.0% | Fat | 21.0% | Fat | 16.0% |
| Fiber | 3.0% | Fiber | 2.6% | Fiber | 3.7% | Fiber | 4.6% | Fiber | 3.0% | Fiber | 3.0% | Fiber | 4.0% | Fiber | 5.0% |
| | | | | | | Omega 6 | 3.9% | Omega 6 | 3.4% | Omega 6 | 3.1% | Omega-6 | 3.35% | Omega-6 | 2.30% |
| | | | | | | Omega 3 | 0.65% | Omega 3 | 0.58% | Omega 3 | 0.55% | Omega-3 | 0.45% | Omega-3 | 0.30% |
| | | | | | | | | | | | | Vitamin E | 140 IU/kg | Vitamin E | 140 IU/kg |
| Chicken Meal | | Chicken Meal | | Chicken | | Chicken Meal | | Chicken | | Chicken Meal | | Chicken | | Chicken | |
| Brewers Rice | | Chicken | | Brewers Rice | | Brewers Rice | | Brown Rice | | Brown Rice | | Chicken Meal | | Chicken Meal | |
| Brown Rice | | Corn Gluten Meal | | Chicken Meal | | Corn Gluten Meal | | Chicken Meal | | Chicken | | Corn Meal | | Corn Meal | |
| Chicken | | Brewers Rice | | Brown Rice | | Chicken | | Oatmeal | | Oatmeal | | Fish Meal | | Ground Whole Grain Sorghum | |
| Chicken Fat | | Chicken Fat | | Corn Gluten Meal | | Chicken Fat | | Chicken Fat | | Brewers Rice | | Chicken Fat (Preserved with Mixed Tocopherols) | | Ground Whole Grain Barley | |
| Corn Gluten Meal | | Brown Rice | | Chicken Fat | | Brewers Rice Flour | | Brewers Rice | | Chicken Fat | | Vitamin E and Citric Acid | | Fish Meal | |
| Dried Egg Product | | Dried Egg Product | | Oatmeal | | Dried Eggs | | Dried Tomato Pomace | | Dried Tomato Pomace | | Ground Whole Grain | | Chicken Fat | |
| Beet Pulp | | Beet Pulp | | Beet Pulp | | Brown Rice | | Nature Flavors | | Nature Flavors | | Sorghum | | Brewers Rice | |
| Brewer's Yeast | | Natural Chicken Flavor | | Natural Chicken Flavor | | Barley | | Flax | | Flax | | Ground Whole Grain Barley | | Natural Chicken Flavor | |

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|--|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---|---|
| Natural Chicken Flavor | Brewer's Yeast | Rice Hulls | Natural Chicken Flavor | Fish Meal | Fish Meal | Dried Beet Pulp | Dried Beet Pulp |
| Zeolite | Salmon Oil | Brewers Yeast | Cellulose | Dried Egg Product | Brewers Dried Yeast | Natural Chicken Flavor | Dried Egg Product |
| Canola Oil | Potassium Chloride | Salmon Oil | Beet Pulp | Brewers Dried Yeast | Dried Egg Product | Dried Egg Product | Brewers Dried Yeast |
| Salmon Oil | Zeolite | Canola Oil | Brewers Yeast | Canola Oil | Canola Oil | Brewers Dried Yeast | Potassium Chloride |
| Potassium Chloride | Rice Hulls | Potassium Chloride | Canola Oil | Dried Cheese | Potassium Chloride | Salt | Salt |
| Rice Hulls | Chicory | Salt | Salmon Oil | Chicory | Salt | Potassium Chloride | Sodium Hexametaphosphate |
| Chicory | Salt | Calcium Carbonate | Potassium Chloride | Salt | Chicory | Flax Meal | Calcium Carbonate |
| Salt | Choline Chloride (Vitamin B4) | Dried Sweet Potato | Chicory | Apples | Apples | Marigold Extract | Flax Meal |
| Monosodium Phosphate | Salmon Meal | DL Methionine | Dried Sweet Potato | Blueberries | Blueberries | Choline Chloride (Vitamin B4) | Choline Chloride (Vitamin B4) |
| Dried Sweet Potato | Dried Apples | Ascorbic Acid | Salt | Spinach | Spinach | DL-methionine | Iron Sulfate |
| Dried Blueberries | Dried Blueberries | Dicalcium Phosphate | Vitamin E | Sweet Potatoes | Dried Cheese | Iron Sulfate | DL-methionine |
| Choline Chloride (Vitamin B4) | Taurine | Choline Chloride (Vitamin B4) | L-tyrosine | Dried Kelp | Sweet Potatoes | Vitamin E | Vitamin E |
| Salmon Meal | Vitamin E | Magnesium Oxide | Ascorbic Acid | Dehydrated Alfalfa Meal | Dried Kelp | Beta-carotene | Beta Carotene |
| Dried Apples | Saccharomyces Cerevisiae Fermentation Solubles | Dried Eggs | Taurine | Potassium Chloride | Dehydrated Alfalfa Meal | Zinc Oxide | Zinc Oxide |
| L-lysine | Ascorbic Acid | Salmon Meal | Borage Oil | Yucca Schidigera Extract | Yucca Schidigera Extract | Ascorbic Acid | Ascorbic Acid |
| Vitamin E | Flax Seed | Vitamin E | Choline Chloride (Vitamin B4) | Ginger | Cloves | Manganese Sulfate | Manganese Sulfate |
| Taurine | Marigold Extract | Dried Blueberries | Magnesium Oxide | Garlic | Parsley | Copper Sulfate | Copper Sulfate |
| Saccharomyces Cerevisiae Fermentation Solubles | Monosodium Phosphate | Marigold Extract | Salmon Meal | Calcium Carbonate | Calendula | Manganous Oxide | Manganous Oxide |
| Ascorbic Acid | Folic Acid | Dried Spinach | Iron Proteinate | Choline Chloride (Vitamin B4) | Dandelion | Vitamin a Acetate | Vitamin a Acetate |
| Marigold Extract | Zinc Oxide | Dehydrated Alfalfa | Marigold Extract | Zinc Proteinate | Basil | Calcium Pantothenate | Calcium Pantothenate |
| Alfalfa Dehydrated Meal | Iron Sulfate | Zinc Proteinate | Dehydrated Alfalfa | Vitamin E | Calcium Carbonate | Biotin | Biotin |
| Dried Spinach | Manganese Proteinate | Flax Seed | Dried Spinach | Ascorbic Acid | Choline Chloride (Vitamin B4) | Rosemary Extract | Rosemary Extract |
| Flax Seed | Biotin | Folic Acid | Dried Blueberries | Zinc Oxide | Zinc Proteinate | Vitamin B12 | Vitamin B12 |
| Zinc Proteinate | Sage | Zinc Oxide | Glucosamine Hydrochloride | Manganese Proteinate | Vitamin E | Thiamine Mononitrate (Source of Vitamin B1) | Thiamine Mononitrate (Source of Vitamin B1) |
| Folic Acid | Iron Proteinate | Iron Sulfate | Zinc Proteinate | Copper Proteinate | Ascorbic Acid | Niacin | Niacin |
| Zinc Oxide | Copper Proteinate | Manganese Proteinate | Chondroitin | Extract of Rosemary | Zinc Oxide | Riboflavin (Source of Vitamin B2) | Riboflavin (Source of Vitamin B2) |
| Iron Sulfate | Calcium Pantothenate | L-carnitine | Flax Seed | Manganous Oxide | Manganese Proteinate | Inositol | Inositol |
| Manganese Proteinate | Tocopherols | Iron Proteinate | Calcium Carbonate | Copper Sulfate | Copper Proteinate | Pyridoxine Hydrochloride (Vitamin B6) | Pyridoxine Hydrochloride (Vitamin B6) |
| Sage | Died Ginger | Biotin | Folic Acid | Vitamin A acetate | Extract of Rosemary | Vitamin D3 | Vitamin D3 |

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|---------------------------------------|-----------------------------------|---------------------------------------|---------------------------------------|---|---|------------------|------------------|
| Biotin | Garlic | Copper | Green Tea | tuna oil | Manganous Oxide | Potassium Iodide | Potassium Iodide |
| Copper Proteinate | Copper Sulfate | Proteinate | Grapefruit Extract | Sage | Copper Sulfate | Folic Acid | Folic Acid |
| Copper Sulfate | Manganous Oxide | Copper Sulfate | zinc oxide | Niacin | Vitamin A Acetate | Cobalt Carbonate | Cobalt Carbonate |
| Dried Ginger | Vitamin A | Calcium Pantothenate | Iron Sulfate | Calcium Pantothenate | Tuna Oil | | |
| Dried Garlic | Rosemary Extract | Sage | Manganese Proteinate | Sodium Selenite | Sage | | |
| Calcium Pantothenate | Pyroxidine Hydrochloride | Manganous Oxide | Biotin | Vitamin B12 | Niacin | | |
| Manganous Oxide | Sodium Selenite | Vitamin A | iron proteinate | Vitamin D3 | Calcium Pantothenate | | |
| Vitamin A | Niacin | Rosemary Extract | copper proteinate | Calcium Iodate | Sodium Selenite | | |
| Sodium Selenite | Riboflavin (source of Vitamin B2) | Pyridoxine Hydrochloride (Vitamin B6) | Calcium Pantothenate | Riboflavin (source of Vitamin B2) | Vitamin B12 | | |
| Pyridoxine Hydrochloride (Vitamin B6) | Thiamine Mononitrate | Sodium Selenite | Copper Sulfate | Pyridoxine Hydrochloride (Vitamin B6) | Vitamin D3 | | |
| Niacin | Vitamin B12 | Niacin | Sage | Thiamine Mononitrate | Calcium Iodate | | |
| Riboflavin (source of Vitamin B2) | Calcium Iodate | Riboflavin (source of Vitamin B2) | Manganous Oxide | Biotin | Riboflavin (source of Vitamin B2) | | |
| Thiamine Mononitrate | Vitamin D3 | Thiamine Mononitrate | Vitamin A | dried Lactobacillus acidophilus fermentation product | Pyridoxine Hydrochloride (Vitamin B6) | | |
| Vitamin B12 | | Vitamin B12 | pyridoxine hydrochloride (Vitamin B6) | dried Enterococcus faecium fermentation product | Thiamine Mononitrate | | |
| Vitamin D3 | | Calcium Iodate | Sodium Selenite | dried Lactobacillus plantarum fermentation product | Biotin | | |
| | | Vitamin D3 | Rosemary Extract | dried Lactobacillus casei fermentation product | dried Lactobacillus acidophilus fermentation product | | |
| | | | Niacin | dried Lactobacillus lactis fermentation product | dried Enterococcus faecium fermentation product | | |
| | | | Riboflavin (source of Vitamin B2) | dried Bifidobacterium bifidum fermentation product | dried Lactobacillus plantarum fermentation product | | |
| | | | Thiamine Mononitrate | dried Enterococcus diacetylactis fermentation product | dried Lactobacillus casei fermentation product | | |
| | | | Vitamin B12 | Folic Acid | dried Lactobacillus lactis fermentation product | | |
| | | | Calcium Iodate | | dried Bifidobacterium bifidum fermentation product | | |
| | | | Vitamin D3 | | dried Enterococcus diacetylactis fermentation product | | |
| | | | | | Folic Acid | | |

| Iams Puppy | | Iams Adult | | Purina Puppy Chow | | Bill-Jac Select | | Sensible Choice Adult Chicken & Rice | | Nutro's Natural Choice Puppy | | Hill's Science Diet | |
|--|-------|--|-------|--|-------|---------------------------------------|-----|--|------|---|-----------|---|-------|
| 5 Lbs 1 1/2 cup | | 5 Lbs 1/2 cup | | 5 Lbs 1/2 cup | | 5 lbs 1/4 cup | | 3-10 Lbs 1/2-1 cup | | 5 Lbs 1 1/2 cups | | 5 Lbs 1/2 cup | |
| 20 lbs \$20.00 | | 20 lbs \$18.00 | | 22lbs \$13.00 | | 18 lbs \$22.00 | | 20lbs \$18.00 | | 20lbs \$20.00 | | 20 lbs \$21.00 | |
| Protein | 28.0% | Protein | 26.0% | Protein | 27.0% | Protein | 27% | Protein | 25 | Protein | 26% | Protein | 21.5% |
| Fat | 17.0% | Fat | 15.0% | Fat | 12.0% | Fat | 18% | Fat | 15% | Fat | 12% | Fat | 13% |
| Fiber | 4.0% | Fiber | 4.0% | Fiber | 50% | Fiber | 4% | Fiber | 3.5% | Fiber | 5% | Fiber | 3% |
| Omega-6 | 3.00% | Omega-6 | 2.50% | | | | | | | | | | |
| Omega-3 | 0.30% | Omega-3 | 0.25% | | | | | | | | | | |
| | | | | | | | | | | Vitamin E | 160 IU/kg | | |
| Chicken | | Chicken | | Ground Yellow Corn | | Chicken By-products (Organ Meat Only) | | Chicken Meal | | Lamb Meal | | Chicken | |
| Chicken Meal | | Corn Meal | | Chicken By-product Meal | | Fresh Chicken | | Brewers Rice | | Rice Flour | | Corn Meal | |
| Corn Meal | | Ground Whole Grain Sorghum | | Corn Gluten Meal | | Corn | | Rice Flour | | Rice Bran | | Ground Grain Sorghum | |
| Ground Whole Grain Sorghum | | Chicken By-Product Meal | | Brewers Rice | | Chicken By-Product Meal | | Chicken | | Rice Gluten | | Ground Wheat | |
| Ground Whole Grain Barley | | Ground Whole Grain Barley | | soybean meal | | Dried Beet Pulp | | Chicken fat (preserved with mixed tocopherols) | | Ground Rice | | Chicken by-product meal | |
| Chicken Meal | | Chicken Fat (preserved with Mixed Tocopherols, a source of Vitamin E, and Citric Acid) | | beef tallow preserved with mixed tocopherols (source of Vitamin E) | | Fresh Chicken Liver | | Powdered Cellulose | | Dried Beet Pulp | | Brewers Rice | |
| Chicken Fat (preserved with Mixed Tocopherols, a source of Vitamin E, and Citric Acid) | | Fish Meal | | Pearled Barley | | Brewers Dried Yeast | | Dried Chicken | | Sunflower Oil (preserved with mixed Tocopherols, a source of natural Vitamin E) | | Soybean Meal | |
| Fish Meal | | Chicken Meal | | Animal Digest | | Cane Molasses | | Natural Flavor | | Poultry Fat (preserved with mixed Tocopherols, a source of natural Vitamin E) | | Animal Fat (preserved with mixed tocopherols and citric acid) | |
| Dried Beet Pulp | | Dried Beet Pulp | | Dicalcium Phosphate | | Eggs | | Monosodium Phosphate | | Natural Flavor | | Chicken Liver Flavor | |
| Natural Chicken Flavor | | Natural Chicken Flavor | | Calcium Carbonate | | Salt | | Calcium Carbonate | | Potassium Chloride | | Vegetable Oil | |
| Dried Egg Product | | Dried Egg Product | | Salt | | Sodium Propionate (a preservative) | | Brewers Dried Yeast | | Dried Kelp (source of Iodine) | | Dried Egg Product | |
| Brewers Dried Yeast | | Brewers Dried Yeast | | Potassium Chloride | | DL-Methionine | | Potassium Chloride | | Dried Egg Product | | Flaxseed | |
| Potassium Chloride | | Potassium Chloride | | L-Lysine Monohydrochloride | | L-Lysine | | Dried Chicken liver | | Zinc Sulfate | | Salt | |
| Salt | | Salt | | Choline Chloride (Vitamin B4) | | Vitamin A Acetate | | Salt | | Vitamin E | | calcium carbonate | |
| Flax Meal | | Sodium Hexametaphosphate | | DL-Methionine | | Vitamin D3 | | Choline Chloride (Vitamin B4) | | Ferrous Sulfate | | Potassium Chloride | |
| Choline Chloride (Vitamin B4) | | Flax Meal | | Zinc Sulfate | | Vitamin E | | Zinc Proteinate | | Taurine | | dicalcium phosphate | |
| Ferrous Sulfate | | Choline Chloride (Vitamin B4) | | Ferrous Sulfate | | Riboflavin (source of Vitamin B2) | | Vitamin A, | | Choline Chloride (Vitamin B4) | | Ferrous Sulfate | |

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|---|---|--|--|---------------------------------------|--|--|
| Dicalcium Phosphate | Calcium Carbonate | Vitamin s A | Niacin | Vitamin D3 | Biotin | zinc oxide |
| DL-Methionine | Iron Sulfate | Vitamin s B-12 | Biotin | Vitamin E | Ascorbic Acid (source of Vitamin C) | Copper Sulfate |
| Zinc Oxide | Zinc Oxide | Vitamin s D-3 | Choline Chloride (Vitamin B4) | Vitamin B12 | Manganous Oxide | Manganous Oxide |
| Vitamin E | Vitamin E | Manganese Sulfate | Folic Acid | Ascorbic Acid | Garlic Flavor | Calcium Iodate |
| Ascorbic Acid | DL-Methionine | Niacin | Thiamine Mononitrate | zinc oxide | Niacin | Sodium Selenite |
| Manganese Sulfate | Ascorbic Acid | Calcium Pantothenate | Pyridoxine Hydrochloride (Vitamin B6) | Manganese Proteinate | Riboflavin (source of Vitamin B2) | Rosemary Extract |
| Copper Sulfate | Manganese Sulfate | Brewers Yeast | Ascorbic Acid | Copper Proteinate | Calcium Pantothenate | Beta-Carotene |
| Manganous Oxide | Copper Sulfate | Riboflavin (source of Vitamin B2) | Vitamin B12 | Rosemary Extract | Vitamin B12 | Choline Chloride (Vitamin B4) |
| Vitamin A Acetate | Manganous Oxide | Biotin | Menaione | Manganous Oxide | Vitamin A | Vitamin A |
| Calcium Pantothenate | Vitamin A Acetate | Garlic Oil | Sodium Bi-sulfate Complex, (source of Vitamin K) | Copper Sulfate | Pyridoxine Hydrochloride (Vitamin B6) | Vitamin D3 |
| Biotin | Calcium Pantothenate | Pyridoxine Hydrochloride (Vitamin B6) | D-Calcium Pantothenate | Niacin | Thiamine Mononitrate (source of Vitamin B1) | Vitamin E |
| Rosemary Extract | Biotin | Copper Sulfate | Manganous Oxide | calcium panthothenate | Calcium Iodate | L-ascorbyl-2-polyphosphate (a source of Vitamin C) |
| Thiamine Mononitrate (source of Vitamin B1) | Rosemary Extract | Thiamine Mononitrate | Inositol | Pyridoxine Hydrochloride (Vitamin B6) | Vitamin D3 | Niacin |
| Vitamin B12 | Thiamine Mononitrate (source of Vitamin B1) | Folic Acid | BHA (a preservative) | Riboflavin (source of Vitamin B2) | Menadione Sodium Bisulfite Complex (source of Vitamin K) | Thiamine Mononitrate |
| Niacin | Vitamin B12 | Menadione Sodium Bisulfite complex (source of Vitamin K) | Iron Sulfate | Thiamine Mononitrate | Sodium Selenite | Calcium Pantothenate |
| Riboflavin (source of Vitamin B2) | Niacin | Calcium Iodate | Copper Sulfate | Calcium Iodate | Folic Acid | Pyridoxine Hydrochloride (Vitamin B6) |
| Inositol | Riboflavin (source of Vitamin B2) | Sodium Selenite | Zinc Oxide | Biotin | | Riboflavin (source of Vitamin B2) |
| Pyridoxine Hydrochloride (Vitamin B6) | Inositol | | Cobalt Carbonate | Sodium Selenite | | Folic Acid |
| Vitamin D3 | Pyridoxine Hydrochloride (Vitamin B6) | | Potassium Iodine | Folic Acid | | Biotin |
| Potassium Iodide | Vitamin D3 | | Sodium Selenite | | | Vitamin B12 |
| Folic Acid | Potassium Iodide | | | | | |
| Cobalt Carbonate | Folic Acid | | | | | |
| | Cobalt Carbonate | | | | | |



GLOSSARY OF INGREDIENTS

APPLES - Natural source of calcium, iron, and vitamins A, C & K and high in fiber

ASCORBIC ACID: Is vitamin C and is one of the most common natural preservatives.

B COMPLEX VITAMINS - Thiamin, niacin, biotin, folic acid, riboflavin, pyridoxine, pantothenic acid, and cyanobalamin. All the B complex vitamins help to regulate metabolism and stimulate appetite.

BARLEY - A carbohydrate, which provides the body with energy. Considered to be a non-allergenic grain.

BASIL - May act as a digestive aid

BEE POLLEN - is extremely beneficial for the immune system.

BEET PULP - Beet pulp is the dried residue from sugar beet, added for fiber, but primarily sugar.

BIFIDOBACTERIUM BIFIDUM FERMENTATION PRODUCT - Bifidobacterium bifidum is also a slow-growing bacterium. Like yogurt, bifidus products are produced from concentrated milk and they are processed in the same way as yogurt. Acidophilus and bifidus bacteria are the two main probiotic bacteria used in the production of cultured milk products and other dairy products such as baby foods and infant formulas. These bacteria are able to survive in the digestive system and support the balance of the intestinal microflora, which is a very important health factor.

BIOTIN - is a source of vitamin B.

BIOTIN - (a B vitamin), to help maintain a silky coat and a skin in full health.

BLUEBERRIES - Natural antioxidant and high in vitamin C

BORAGE OIL - is a vegetable oil obtained from the processing of the borage plant (Borage officinalis). Borage oil is rich in the fatty acid, gamma-linolenic acid. Gamma-linolenic acid has been shown to maintain skin moisture, block inflammatory substances and reduce redness and itching of the skin, provide a shiny hair coat, and help support the natural healing process of the animal.

BREWER'S YEAST - with taste appealing garlic is an excellent natural source of B-complex vitamins and protein. It helps reduce shedding and promotes healthy skin and coat.

BREWERS RICE - Is a filler

BROWN RICE - Superior carbohydrate source and high in B vitamins. Provides higher quantities of fiber and lower quantities of fat and protein than corn, wheat or soybean.

CALCIUM & PHOSPHORUS - is a source of mineral. Calcium and phosphorus are necessary in particular ratio for bone formation and strength. An imbalance in the ratio will cause bone problems.

CANOLA OIL - comes from the mustard plant, originally grown in Canada. Hence the name "Canada-Oil" or canola for short. Food products manufactured with Canola Oil have higher levels of polyunsaturated and monounsaturated fats and significantly lower levels of saturated and trans fatty acids than traditional products. Canola oil's unique ratio of almost 2 to 1 Omega-6 to Omega-3 makes it the richest vegetable oil source of essential fatty acids. By giving canola to your canine you can help to increase circulation, reduce joint tenderness, reduce dandruff, and maintain a healthy immune system. Plus, it's good for maintaining healthy skin and coat.

CAPSICUM - Natural antioxidant that may improve circulation

CHAMOMILE - May have wound healing and anti-inflammatory properties

CHEESE - Quality protein source

CHICKEN FAT - Highly palatable and high in Omega 6 and other essential fatty acids

CHICKEN MEAL - means all natural chicken and DOES NOT contain any poultry by-products or other by-products like chicken feet, beaks, feet, heads, duck heads, beaks, feathers, fish heads, hides, hoofs or intestines.

CHICORY ROOT EXTRACT - for FOS, a prebiotic, and four different probiotics. The prebiotics help nurture the good bacteria already in the digestive system, and the probiotics add more of the good bacteria. The more good bacteria there is, the smaller

the chance that bad bacteria will take over.

CHONDROITIN SULFATE - Naturally occurring compound associated with joint health

CINNAMON - May protect against arthritis

Copper is necessary in production of melanin, the pigment that colors coat and skin, and is linked with iron metabolism. Deficiencies can cause a bone disorder and anemia even if iron intake is normal

COPPER PROTEINATE - is a source of mineral

CRANBERRY - Helps to support healthy function of the urinary tract.

DANDELION - May act as a blood cleanser

DIMETHYLGLYCINE - is produced naturally in both humans and animals. It can boost the immune response by over 400%. DMG is used to support proper immune response, cardiovascular and skin health, glucose metabolism as well as proper nerve and brain functions.

DL-METHIONINE: Is a product which contains a minimum of 99% racemic 2-amino-4-methylthiobutyric acid. DL-METHIONINE provides significant protection against oxidative damage, and prevents depletion in the brain and liver of glutathione, an important antioxidant.

ECHINACEA - Helps the immune system.

EGGS - High quality protein with superior bio-availability

ENTEROCOCCUS DIACETYLACTIS FERMENTATION PRODUCT - lactic acid-producing bacteria and yeast for stabilizing digestive tract microflora.

FISH, TUNA OIL - Contains Omega 3 fatty acids

FLAX SEED OIL - Known to stimulate the immune system, and acts as an antioxidant. Flax seed oil is a superb source of Omega 3 and 6 essential fatty acids. Flaxseed is the richest vegetable source of Omega 3 essential fatty acids.

FOLIC ACID - is a source of vitamin B.

GARLIC - Well known for its immunize antioxidant and helps in preventing fleas, worms, ticks, gastric and skin problems. Helps the heart by lowering blood pressure.

GINGER - May enhance your dog's immune system

GLUCOSAMINE – a naturally occurring substance found in cartilage. It stimulates collagen production, the protein that helps hold joints together.

GRAPE SEED EXTRACT - is proanthocyanidins (PCOs). PCOs are a special class of water soluble bioflavonoids that are potent antioxidants. In some comparative tests, PCOs were found to be 50 times more potent than Vitamin E and 20 times more potent

than Vitamin C. PCOs prevent the release of histamine from mast cells thereby reducing the adverse effects of histamine. PCOs support capillary strength. Weak capillaries can contribute to bruising, elastin and collagen dysfunction, edema and circulatory insufficiencies.

Iron is critical for healthy red blood cells and an essential component of some enzymes

IRON PROTEINATE - is a source of mineral

IRON CARBONATE - A form of iron essential for proper hemoglobin production.

KELP - Natural mineral supplement

LACTOBACILLUS LACTIS FERMENTATION PRODUCT - lactic acid-producing bacteria and yeast for stabilizing digestive tract microflora.

MANGANESE - is a source of mineral. Magnesium is found in soft tissue and bone; it interacts with calcium to provide proper heart, muscle, and nervous tissue function and aids in metabolism of potassium and sodium. Deficiency leads to muscle weakness and sometimes convulsions.

MENADIONE SODIUM BISULFITE - (Source of Vitamin K Activity) Is important to the formation of blood clots.

METHYLSULFONYLMETHANE - is a naturally occurring sulfur compound found in every cell of the body. It ensures the body's ability to synthesize collagen for connective tissue health, maintain membrane flexibility and promote cell regeneration.

NIACIN - is a source of vitamin B.

OAT FLOUR - Finely ground whole oats obtained through the milling process. It consists essentially of the starch and gluten of the endo sperm.

OATMEAL - Good source of carbohydrates and fiber, high in iron

OMEGA 3 FATTY ACIDS - Fats are made up of smaller units called fatty acids. There are two major categories of fatty acids: saturated fatty acids and unsaturated fatty acids. In general, saturated fatty acids are synthesized by the animal in the necessary quantities. Their major function is to store energy in the body. Unsaturated fatty acids have multiple functions in the body such as being constituents of cell membranes and the precursors of many cellular mediators. Among the various types of unsaturated fatty acids, there are two families that are known to be indispensable to the dog and cat - the omega 6 family (derived from linoleic acid) and the omega 3 family (derived from alpha-linolenic acid). It is widely accepted that linoleic acid must be present in the animal's diet. Because the animal can not synthesize this fatty acid, however, it must also be realized that the animal also can not synthesize alpha-linolenic acid. It is from this fatty acid, that all other necessary fatty acids within the omega 3 family can be synthesized. Omega 3 fatty acids play numerous roles within the animal's body. They are involved in inhibiting inflammation, improving vision, decreasing the formation of clots in blood vessels, improving the learning ability of young animals, and stimulating immune responsiveness. Good sources of omega 3 fatty acids include flax and fish oils. Good sources of omega 6 fatty acids include corn, poultry and chicken fats. These essential

fatty acids contribute to a lustrous coat, helps to eliminate hot spots and bald spots, helps prevent dry skin and dandruff, and heals red and raw areas.

PAPRIKA - Natural antioxidant

PARSLEY - May help control diabetes and lower cholesterol

POTASSIUM CHLORIDE - Is the potassium salt of hydrochloric acid.

POTASSIUM - is a source of mineral. It is found within tissue cells and is important in cellular activity; a deficiency causes muscle weakness and heart and kidney lesions.

POTATOES - Protein source low in phosphorus

POULTRY FAT - (preserved with Mixed Tocopherols and Citric Acid): A substance composed chiefly of triglycerides of fatty acids.

PROBIOTICS - Increased digestion and absorption

PROTEINS, FATS AND CARBOHYDRATES - provide energy for the pet. Dogs are continually expending energy and this energy expenditure increases during lactation, exercise, and when regulating body temperature. If the dog stays outdoors or is typically active, he will require more protein, fats and carbohydrates for energy production than an inside or sedentary dog.

REISHI MUSHROOMS - which enhance the immune system, increase white cell counts, platelets, hemoglobin and various tumor fighting cells.

ROSEMARY - Is an all natural free flowing antioxidant for use in the preservation of fats, oils, fat-soluble vitamins and other oxygen sensitive ingredients

SAGE - Natural antioxidant

SALMON OIL - Omega-3 fatty acids – Mother Nature's formula for total fitness. Omega-3 and omega-6 fatty acids have been shown to prevent many common health ailments and work as effective tools in fighting heart disease, depression and even cancer.

SALT: Is necessary for the functioning of cells.

SODIUM ASCORBATE - is a non-acidic form of Vitamin C.

SPINACH - Source of lutein and a natural antioxidant

SWEET POTATOES - High in fiber and vitamins C & E and excellent carbohydrate source

TOCOPHEROLS (vitamin E) - are the most common natural preservatives.

TOMATO - Natural source of fiber and vitamin A

Trace elements are iron, copper, manganese, zinc, iodine, selenium, and cobalt. Although dietary requirements are minimal, they are essential to general good health.

TURMERIC - May protect against bursitis and tendinitis

VITAMIN A - Is a fat soluble vitamin and is particularly important for vision, hearing, intestinal tract lining, skin and bone cell maturation.

VITAMIN E - Is a fat soluble vitamin that functions as an antioxidant and is important in liver and muscle functioning and in reproduction.

VITAMIN D3 - Is a fat soluble vitamin that is important for bone and teeth formation, calcium and phosphorus absorption and utilization.

YUCCA - Arthritis, Bone & Joint Problems, Inflammation Yucca is an excellent anti-inflammatory nutrient, and is known to be effective against hip dysplasia, arthritis, bone and joint problems. It reduces pain and increases mobility by production of natural steroids in the body. Yucca also aids in digestion, and is a liver, blood, and digestive detoxifier. It is helpful for allergies, asthma, skin problems, body odor, and stress. Anise is added to help cleanse the kidneys and liver. The peppermint helps to soothe and relax the muscle tissues. Yucca acts as a natural odor control: May reduce fecal odor, it works from the inside out. It must absorb into the tissue, and usually takes 30-45 days to see results. It can be fed with any diet.

ZEOLITES - There is evidence based on studies in Japan and the US that animal feeds with certain blends of Zeolite have markedly improved animal growth and weight gain as well as increased food conversion efficiency. In addition, zeolites in the daily diet appear to reduce the incidence of diarrhea, enteritis and other gastrointestinal diseases. Adding Zeolites to the diets of these animals also aid in the digestion and absorption of nutrients from the feeds because of its affinity to ammonium.

Zinc is heavily involved in skin and coat health, enzyme function, and protein synthesis. Deficiencies lead to poor growth, anorexia, testicular atrophy, and skin lesions.

ZINC PROTEINATE - is a source of mineral

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