

# Dog and Cat Nutrition

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## Water

There is a great tendency for people and animals to dehydrate from not drinking enough water. Drinking an adequate amount of water is probably the most important and the most ignored thing you can do for the body. Look at it this way. Seventy percent of the body is water. That's how important water is to the body.

The mechanism the body uses for eliminating toxins is to convert them from fat-soluble to water-soluble so they can be excreted by the kidneys, skin, and tongue. Drinking plenty of pure water will allow the body to rapidly excrete soluble waste products. Water is also important in moving material along the intestinal tract. Be sure the water you give your pet is fresh!

## Raw Fruits and Vegetables

Raw fruits and vegetable are important foods. Fruit and vegetables require less energy to be digested than any other food. In fact, it requires almost no energy to be digested. Fruits pass through the stomach in 20 to 30 minutes. Fruits and vegetables are alkaline forming, which is important when the body is too acidic. Fruits also make great snacks. They come in convenient carry packages.

## Avoid The Following

REFINED WHITE SUGAR (SUCROSE)

REFINED WHITE FLOURS

Chocolate

Nuts

Generally, avoid foods that are high in fat, low in fiber, are highly processed, and contain preservatives.

Avoid: duck, goose, fatty meat, marbled meat, bacon, spare ribs, sausage, cured (lunch) meats, smoked, barbecued (charcoaled foods), fatty hamburger, and fish eggs (caviar).

Avoid: White or enriched bread, or bread labeled "wheat" unless label is 100% whole grain.

Avoid fruits with added sugar.

Avoid products with: excessive sugar, fat, or added salt, such as prepared gravies, sauces, mixes, mustard, ketchup, chutney, pickle relish, etc.

## Multiple Vitamins and Minerals

As with humans, our food supply may not contain an adequate amount of vitamins and minerals. Some people, dogs, and cats may require more than they are getting in their diets. A multiple vitamin and mineral supplement will ensure that our pets are getting an adequate amount of vitamins and minerals.

## Digestive Enzymes

Many scientific studies have been done relating the diet of "non-technical" societies such as the Eskimos, with disease. These people were disease free, until civilization entered and changed their diets. Ten years later they began to develop many of the "civilized" diseases such as heart disease, cancer, arthritis, etc. Animals in the wild do not develop these diseases, whereas animals in captivity on enzyme-deficient diets do.

There are two main classes of enzymes: metabolic enzymes, which run our bodies and digestive enzymes, which digest our food. All the organs and tissues of the body are run by metabolic enzymes. They take proteins, fats, and carbohydrates, and structure them to build and carry out the normal functions of the body and to repair damage and decay, and heal diseases. The digestive enzymes have only three main functions: digesting protein, carbohydrate, and fat. Protease's are enzymes that digest protein; amylase's digest carbohydrate and lipase's digest fat. The amount of digestive enzymes secreted by the pancreas in response to carbohydrate, protein, and fat is proportional to the amount of each of these food materials it was called upon to digest.

Why are we eating foods, which are deficient in enzymes? Enzymes are destroyed by cooking. Temperatures over 118 degrees F. destroy all the enzymes in that food. Food irradiation and pasteurization of milk destroys enzymes. When we eat an enzyme-deficient food, the pancreas has to produce them for digestion. Sometimes metabolic

enzymes and immune system enzymes are converted to digestive enzymes when necessary. When the body becomes weakened in an enzyme-deficient state, it is a prime target for cancer, obesity, heart disease, endocrine disorder, and other degenerative disorders. Before pasteurization, raw milk and raw butter were used with great success by doctors to treat many diseases. They didn't know why at the time, but the raw milk and raw butter contained valuable digestive enzymes.

The glands and major organs, including the brain, suffer the most from the unnatural digestive drain on the metabolic enzyme potential. The pancreas, which produces the most digestive enzymes, swells (usually double) to meet the great demand for digestive enzymes while the brain decreases in size. The enzyme-deficient diet also affects the size of the liver, heart, pituitary, thyroid, and other endocrine glands.

So, where do we go from here? We can begin with eating raw foods that are rich in both nutrients and enzymes in the raw state, such as: bananas, avocados, grapes, mangoes, olives from the tree, fresh raw dates, fresh raw figs, raw honey, raw unpasteurized butter, and unpasteurized raw milk, germinated inhibitor-free raw cereal grains, seeds, and tree nuts. Next, we can supplement our cooked foods with digestive enzymes.

## Glucosamine and Chondroitin

Glucosamine (Glucosamine sulfate, Glucosamine hydrochloride, N-acetyl glucosamine) is a molecule made of glucose and an amine that is produced naturally in the body. It stimulates cartilage cells to produce two proteins that help to hold joint tissue together, proteoglycans and collagen. It may also prevent the breakdown of collagen. As people and animals, age, their bodies are less able to produce glucosamine, which results in cartilage being less flexible.

Glucosamine is primarily used to treat osteoarthritis. Research indicates that glucosamine is as effective

as low doses of nonsteroidal anti-inflammatories such as ibuprofen. It appears to relieve pain and improve movement. It also slows the progression of the disease and protect joints from further damage. In some studies, x-rays have shown that glucosamine prevents progressive damage to the joints.

Chondroitin, (chondroitin sulfate), is part of a large protein molecule known as a proteoglycan. It provides elasticity to bone cartilage. The cartilage matrix, or cushion between joints, is made of proteoglycans, which consist in large part of chondroitin sulfate. Chondroitin holds water and nutrients in cartilage and giving it structure. This is important because cartilage doesn't have blood supply.

## Omega 3 and Omega 6 Fatty Acids

Omega 6 fatty acids are essential in the diet. Omega 3 fatty acids (EPA/DHA) have anti-inflammatory and immune system boosting properties.

Salmon oil naturally retains valuable fatty acids, antioxidants and traces of vitamins that naturally occur in the salmon. Salmon Oil supplies a daily supplement rich in EPA and DHA (omega-3 fatty acids) and linoleic acid, (essential omega-6 fatty acid).

## Coenzyme Q10 (CoQ10)

CoQ10 supports cardiovascular function, kidney function, and sometimes immune function. Coenzyme Q10 tissue levels decrease with age, especially in the heart, kidneys, and liver. It is recommended for dogs and cats older than 6 years or younger dogs and cats with heart problems. Brewer's yeast may increase the absorption of Coenzyme Q10.

## Tyramine

Tyramine is a vaso-active amino acid that displaces norepinephrine from the nerve endings and epinephrine from the adrenal glands. Monoamine oxidase is in the gastrointestinal tract and inactivates tyramine. There is an adverse reaction when there is either too much tyramine or too little monoamine oxidase. The tyramine content in foods vary greatly due to different processing, aging, fermentation, ripening and/or contamination. Many foods that contain small amounts of tyramine develop large amounts of tyramine if the food products were left to spoil, age (not fresh), or fermented. The emphasis is placed on FRESH FOODS. Fruits that are permissible should be very fresh. Avoid leftovers kept in the refrigerator especially meats, dry packages mixes and can products (prepared foods), yeast extracts, and protein extracts. Remember, foods increase in their tyramine content as they age or ferment. For example, bananas are permissible if they are fresh, not if they are overripe.

Tyramine can also be produced by bacteria in the gastrointestinal track. Helicobacter pylori can produce large amounts of tyramine in the gut. Various bacteria in the gut can cause an increase in the production of tyramine.

Mild tyramine reactions can occur with approximately 6 mg of tyramine. Severe reactions can occur with 10-25 mg tyramine of tyramine.

Approximate tyramine contents of food:

- Cheddar cheese = 1.5 mg/g (42.5 mg/ounce)
- Blue Stilton = 0.2 mg/g (5.6 mg/ounce)
- Gouda = 0.02 mg/g (0.56 mg/ounce)
- Beer = 0.02 mg/g (0.56 mg/ounce)
- Wine = 0.025 mg/g (0.71 mg/ounce)
- Yeast Extracts = 2 mg/g (56.6 mg/ounce)

## Food and Treats

The word "holistic" is meaningless and is used in many animal foods. Also, the word "natural" is meaningless. Anything from the earth is natural. Meat scraps from the floor are natural. Organic means there are no artificial chemicals used in the product and the products must adhere to strict governmental regulations to be called organic.

Our poultry supply is highly contaminated with salmonella and other bacteria. By the time the poultry reaches the pet food company and you, the bacteria has grown leaving behind neurotoxins. Cooking the poultry will kill the bacteria. But, cooking doesn't destroy the neurotoxins. These neurotoxins in sufficient quantity will usually result in vomiting within a couple of hours. Vegetarian food is recommended because meat and poultry can easily become contaminated with bacteria.

Dry food should be used to supplement their diet. Home cooked, well balanced, meals, not table scraps, should be your pets primary source of food. Do not give your pet leftovers that are older than 2 days because the level of tyramine will increase with time. This applies to humans too.

Organic milk daily will provide a great deal of nutrition.

## Further Information about Human Nutrition

The following information about human nutrition also applies to animals.

Nutritional Guidelines and Healthy Gourmet Recipes

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Nutritional Guidelines and Healthy Gourmet Recipes contains many aspects of health and nutrition, including exercise, desktop yoga, and recipes that are healthy and delicious.

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