



## *Facts about Dog & Cat Nutrition:*

### *What Pet Food Requirements Provide the Nutrition They Need*

*by Jane Bicks, DVM*

Pet sitters, like veterinarians, are asked which food is best. We all have our own opinions of the best food to feed. Sometimes that opinion may be valid; other times it is wrong. After all, selecting a dog or cat food is very difficult. There are many articles and books on how to read a label and what to ask a manufacturer regarding their foods. This is absolutely essential in selecting the pet food you are going to recommend; however, basic knowledge of nutrition is far more important.

Unfortunately, it is rarely available in easy terms until now. Our pets' bodies are made up of billions of cells: individual units that have specific functions. For example, heart cells allow the heart to beat; lung cells bring air into the body; and hair cells allow our pets to have coats that protect their skin. The body requires nutrients to feed each and every cell.

#### **Protein**

The nutritional requirements of our pets are like a brick home, made up of many types of bricks. The bricks are the cells, which are made of protein. The quality of the bricks (protein) used is important to the structure of the building. If

one uses poor quality bricks, then the basic structure of the house suffers. Dogs and cats require high quality meat protein, including dairy and fish. If they were in the wild they would be eating small mammals, which would provide meat protein.

By contrast, many pet foods consist of either poor quality cereal protein, such as corn gluten and wheat gluten, or poor quality meat protein sources. An old shoe is made of 100% leather, which is 100% meat protein, yet the quality is so poor that the body simply can't use it. So, the higher the quality of the protein source, the easier the body can use it to make new cells and repair old ones, which all pets require, regardless of age.

## **Fat**

But the brick home doesn't get built with bricks alone. It requires enough skilled workers to put the bricks in place and to get the job done efficiently. As the bricks are protein, the workers are fat. There are differences between fats. *Animal fat* is also known as *tallow* and is classified as *hard fat*. The body can't use it as readily as it can a *softer fat* like chicken fat or lard.

Fat needs to be preserved, either with chemicals or with natural preservatives, such as mixed tocopherols or vitamin E. It is very important to have a close ratio of high quality meat protein to fat. For example, if there is 30% protein, there should be about 20% fat. There should be about 10% less fat than protein. If the fat is not in proportion with the protein, the body becomes less efficient in everything it does – including fighting off disease.

## **Carbohydrates**

Carbohydrates are helpers for the workers. Some nutritionists believe a dog or cat food should have no carbohydrates. Certainly there shouldn't be more than one carbohydrate for cats or two for dogs in a food. But carbohydrates need to be there, because they are an excellent back-up source of energy and less fattening than the other source of energy - fat. There are carbohydrates to avoid: corn and wheat. These cereals contain substantial gluten. Some dogs are sensitive to gluten, which can cause GI upset. Many chronic bowel problems are linked to corn and wheat.

## **Vitamins and Minerals**

Vitamins and minerals are the mortar, the plumbing and all the little details that make a house livable. Without them, there is no house, no body. A vitamin is a nutrient that the body requires but cannot make on its own. Vitamin deficiencies

in dogs and cats are no longer common, and when found, are in pets fed predominantly people food, rather than a balanced dog or cat food. The vitamins and minerals required for our pets are continuously debated among nutritionists as we gain more knowledge of our pets' nutritional needs. I suggest supplementing a dog or cat's diet to be certain that individual needs have been met. A deficiency of just one vitamin or mineral can cause disease.

Whole food is the most important source of vitamins and minerals for pets. While we may be able to synthesize vitamins in a test tube, there is no substitute for Mother Nature. Science has documented the benefits of whole foods versus single nutrients. Whole foods such as fruits and vegetables are rich in antioxidants, a nutritional component vital to our pet's health. Common antioxidants include vitamins C and E, beta carotene and grape seed extract.

The body produces dangerous chemicals all the time. These active molecules, called free radicals, roam the body, destroying healthy cells and eventually organs. It is believed that more than 60 degenerative diseases are a result of free radical damage, including glaucoma, kidney disease and arthritis. Antioxidants are capable of eliminating these free radicals. If our pets were in the wild, they would be eating antioxidant rich grasses from the stomachs of their prey, as well as eating various plants. I suspect one of the reasons cats love to eat plants is to get the antioxidants they instinctively know they require.

## **Supplements**

Once the above-mentioned nutrient requirements are met from a balanced food that has undergone feeding trials, specific supplements can be added according to need. Some dogs or cats may require additional fatty acids for a better skin or coat, or to help reduce itching due to allergies. Others may require a natural supplement to help them become more agile. The selection of supplements should be an educated one. As you choose a supplement, the company behind the product should answer all questions you have regarding a pet's nutrition. If they don't have the expertise or time, then you obviously don't want to use their product.

The type of supplement used, the form it is in, and the frequency all need to be considered. In order to round out the food you are feeding, select a multivitamin/mineral formula with fatty acids and protein, which is derived from whole foods. Alfalfa, bee pollen and flax seed meal all contain the necessary nutritional components and make an excellent basis for a daily supplement. Kelp

is an excellent daily supplement but, due to the high salt content, is not good for dogs or cats with overactive thyroids, heart or kidney disease.

Other supplements can include those for specific problems: arthritis, skin and coat, etc. The best form for a daily supplement is a chewable tablet, capsule, or gelcap. I give my dog his supplement as a treat between meals. Powders are not recommended, as they need to be added to food, which can throw off the balance of the food. Fatty acid supplements, however, can generally be added directly to a food. The addition of others directly to a food will vary, depending upon the formulation. Finally, the dosage must be adhered to. More is not better.

## **Friendly Bacteria**

Friendly bacteria, such as acidophilus in yogurt, are important for the health of the intestines since intestines get much of their nourishment from the breakdown of these friendly bacteria. Healthy intestines are important for maximum nutrient absorption, and for proper elimination of fecal matter. And, since a large portion of the immune system is located in the intestines, a healthy intestinal system is essential for a strong immune system. The addition of friendly bacteria to dog and cat food is relatively new, despite long-standing evidence for its inclusion.

## **It's Up to You**

The important thing to remember is that no supplement can replace a balanced diet. Selecting a pet's diet is one of the most important things an owner can do. Read labels, call the companies and ask questions. Labels can't tell you about the quality of ingredients, but it is a good place to start. Once you have selected a pet food that meets your criteria, the real test is in the feeding. A good food will give a pet a healthy, shiny coat, healthy skin, bright eyes and long whiskers. The owner will notice that the pet is more alert and enjoying life more. It's up to you to help owners make their pet feel good.