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Pet Diets - Part One - Understanding ingredients

NUTRITIONAL NEEDS

Good nutrition is as important to your pet's health as it is to your own. But a pet's nutritional needs are quite different from yours! While a human diet should be high in fiber and low in fat, your dog or cat needs more fat and less fiber. Even if you prefer a vegetarian diet, dogs and cats will not thrive on meatless meals. Dogs are best fed as carnivores because they have simple stomachs and short intestines that are ideal for digesting animal protein and animal fat. Cats are obligate carnivores, meaning they must eat animal protein to get all the essential nutrients, such as taurine, necessary for good health.

Dogs and cats also need carbohydrates for energy and fiber for good digestion.

With more than 3,000 different pet foods available, how do you pick the one that's right for your pet? Start by identifying the pet's life stage and lifestyle. Kittens and puppies, nursing mothers, and senior pets are examples of life stages. Each life stage has different nutritional requirements. All pet foods must state which life stage they are recommended for. Nutritional needs also vary depending on lifestyle. A pet whose primary activity is guarding the couch doesn't need as much energy as one who guards a herd of sheep. If you own a dog, another factor to consider is adult size: small, medium, large, or giant. Finally, it is important to take into account any special medical condition your pet may have, like food allergies, that requires a special diet recommended by your veterinarian.

It's important to remember that while dry food can be left in a bowl all day, canned food should be thrown away after 30 minutes if not consumed. Therefore, dry food is the best choice for busy people who are not normally home during the day. Once you know your pet's nutritional needs (life stage and life style) and your pet's preference (dry food or canned), you are ready to go shopping.

COMPARING LABELS

Ingredients must always be listed in descending order, according to weight.

Because dogs and cats need meat, it's best to pick a food in which the first ingredient is an animal-based protein source, such as chicken and chicken by-product meal, lamb, lamb meal, fish meal, or egg. These ingredients contain a full complement of essential

amino acids. Vegetable- based protein sources, such as soybean meal or corn gluten meal, DO NOT.

Scientific studies show that using a combination of carbohydrates in the diet, such as corn meal or barley and grain sorghum, offers optimal carbohydrate digestibility and helps maintain energy levels. Scientific studies show that beet pulp — the material remaining after sugar is extracted from sugar beets — is an excellent fiber source and promotes a healthy digestive tract. For a glossy coat and healthy skin, your pet needs fat in the diet. Good fat sources include chicken fat, fish oil, and flax meal.

QUALITY

Pet food labels provide limited information regarding the nutritional value of the food because labeling regulations do not allow manufacturers to disclose it on the package. A reputable pet food manufacturer will be able to explain to you their specific methods for evaluating and assuring the quality of ingredients used in their products. Call the toll-free number found on most packages to talk with a representative.

PRICE COMPARISON

When choosing food, the price on the bag, while important, is usually not the best consideration. A low price may indicate inexpensive ingredients, or ingredients that change as market prices fluctuate. In addition, many lower-priced products require higher daily portions to provide the same amount of nutrition found in a lesser amount of a high-quality diet.

To get a better representation of cost, it is the cost *per feeding*, not the total cost, that counts. To figure cost per feeding, divide the total cost by the number of days the product lasts. For example, a 20-lb bag of food costs \$18.99 and lasts 30 days. The cost to feed is \$0.63 per day. A 20-lb bag of food that costs \$15.99 and lasts 20 days costs \$0.80 per day. Therefore, when costs are analyzed properly, high-quality pet foods compare quite favorably to other brands and offer outstanding nutrition.

Pet Diets - Part Two – Nutrients in Pet Foods

Nutrients are divided into subcategories: protein, carbohydrates, fats, vitamins and minerals, and water.

PROTEIN

Common pet food protein sources include meat, fish, and some plant ingredients, such as corn gluten and soybean meal. Protein has many functions in the body, but is best known for supplying amino acids (protein subunits) to build hair, skin, nails, muscles, tendons, ligaments, and cartilage. Protein also plays a main role in hormone production. Dogs, best fed as carnivores, and cats, true carnivores, require essential amino acids, such as taurine for cats, that are not all found in single plant protein sources such as soybean meal.

CARBOHYDRATES

Common carbohydrate sources are plants and grains. Carbohydrates, also categorized as starches (sugars) and fibers, provide energy and bulk, respectively.

Starches are made up of various types of sugar, such as glucose or fructose. Sugar can be easily converted by the dog or cat through digestion into usable energy.

Fiber may or may not be fermented — or broken down into short-chain fatty acids — by bacteria in a dog's or cat's intestines. Highly fermentable fiber sources, such as vegetable gums, provide high amounts of short-chain fatty acids. Moderately fermentable fibers, such as beet pulp, provide short-chain fatty acids and bulk for moving waste. Slightly fermentable fibers, such as cellulose, provide mainly bulk for moving waste through the digestive tract and only a few short-chain fatty acids.

FATS

Fats are found in meats, fish, and plant oils, such as flax and vegetable oils. Fat, for all its bad press, fulfills many vital body functions. Animal cell membranes are made of fat. Fat is also responsible for helping maintain body temperature, controlling inflammation, and more. Fat is the primary form of stored energy in the body providing twice as much energy as carbohydrates or proteins.

Fats also provide the important fat subunits, omega-6 and omega-3 fatty acids. Omega-6 fatty acids are essential for maintenance of skin and coat and proper membrane structure. Omega-3 fatty acids have been shown to be important in blood clotting and decreasing inflammation.

VITAMINS & MINERALS

Vitamins are necessary for bone growth, blood clotting, energy production, and oxidant protection. Vitamins A, D, E, and K require fat for absorption into the body. Vitamins such as the B-complex vitamins and vitamin C need water to be absorbed into the body.

Minerals provide skeletal support and aid in nerve transmission and muscle contractions.

Here are some things you should know about when shopping for a high-quality, cost-effective food for your pet. Do you know what these terms on the bag mean?

1. The name game

- a. BEEF indicates more than 95% beef in the diet by weight
- b. BEEF FORMULA indicates more than 25% beef
- c. WITH BEEF means the food is only 3% beef
- d. BEEF FLAVOR means there is detectable beef

2. Nutritional statements

- a. This food “provides complete and balanced nutrition” means there was no laboratory analysis of nutrient content

- b. This food “meets the nutritional labels” means it was laboratory tested for all listed ingredients in the proper amount

The bag should specify that animal feeding tests were performed on the diet. It should also identify the purpose of the diet--growth, adult, senior, etc.

3. Price per bag

Spend more to save more. More expensive diets have better quality ingredients that have high energy content. This means you can feed a smaller portion that has more absorption with longer lasting satiety. Buy the food based on cost per feeding evaluation, NOT cost of bag.

A low price may mean the manufacturer uses inexpensive ingredients. If so, you will need to feed more of an inexpensive product to provide the same amount of nutrition found in a high-quality diet. You can determine what the cost of a product is per feeding. To do that just divide the total cost of the bag by the number of days the product lasts. For example, a 20 lb. bag of high-quality food costs \$18.99 and lasts 30 days. The cost is \$0.63 per day. On the other hand, a less expensive 20 lb. bag costs \$15.99 and lasts only 20 days. (Your pet must eat more of it to get the same nutrition found in a smaller amount of the high-quality food.) It costs \$0.80 per day. When the cost is analyzed properly, it is easy to see that the high-quality food actually costs less because it lasts longer.

4. Guaranteed analysis

Guaranteed analysis only tells you about the percentage of contents in the WHOLE bag of food, not per feeding cup, so it is not that important.

A good rule of thumb is

- a. More fat = more energy=less feeding volume
- b. More fiber in the diet= more poop to scoop

5. Ingredients

Ingredients are always listed in descending order by weight. However, the weight includes the moisture in the ingredient, and that makes it tricky to interpret. A moist ingredient, such as chicken, which may be 70 percent water, may be listed ahead of a dry ingredient, such as soybean meal, which is only 10% water--yet the soy actually contributes more solids to the diet. Remember that the first five ingredients make up the majority of the diet.

a. Ingredient Quality

AAFCO, the organization that defines and controls ingredients in pet diets, does NOT require pet food manufactures to define the quality of ingredients in food.

For example, chicken protein may come as

- CHICKEN: flesh and skin without internal organs or feathers
- CHICKEN MEAL: flesh and skin that have been cleaned, dried, cooked, and ground.
- CHICKEN BY-PRODUCT MEAL: flesh and skin, internal organs

including intestines that have been cleaned, dried, cooked, and ground.

Do you think the protein content is different among those three? You bet it is; but, they all can be listed as chicken protein!

Nutritional needs for protein also change with age. Research shows that feeding a senior dog protein levels below 24% increases mortality. The choice of protein source is vital to life stages of your pet. Animal proteins are better, more digestible and palatable, and contain higher quality protein than plant proteins. Proteins of highest to lowest quality are: egg, chicken, chicken by-product, meat meal, meat and bone meal, soy meal and corn gluten. Choose a diet that includes only the first three protein choices named above.

Meat and bone meal is a product of the rendering process. In 1985, the American Journal of Veterinary Research carried out an investigation into the persistence of the euthanasate sodium phenobarbital in the carcasses of euthanized animals at a typical rendering plant. They found that it survived a conventional rendering process. This means that other chemical contaminants (e.g., heavy metals, pesticides, hormones, antibiotics, organophosphates, etc.) may also survive the rendering process largely unchanged.

Some commercially available diets that have rendering products in them are:

O'l Roy (beef and bone meal)

Kibbles 'n Bits (beef and bone meal)

Purina® Beneful (beef tallow)

Purina® Dog Chow® Healthy Morsels™ (beef tallow, beef and bone meal)

Purina® brand Hi Pro Dog Food (beef tallow, beef and bone meal)

Purina® LA Limited Antigen Canine (tallow)

Purina® NF Kidney Function (beef tallow)

Pedigree Performance for Adult Dogs Original Beef Flavor (meat and bone meal)

PLANT-BASED PROTEIN vs ANIMAL-BASED PROTEIN DIETS

Plant based proteins used in the pet food industry come from corn meal or soy meal. Each one is an incomplete protein missing one or two amino acids. Food must include a mixture of both to be balanced. One study suggests that, compared with dogs fed a diet of 100% chicken protein, dogs fed diets with decreasing levels of chicken protein and increasing levels of corn gluten meal had decreased lean tissue, increased body fat, and decreased levels of blood proteins used as markers of superior nutritional status.

Diets that boost protein levels with plant protein sources are Pedigree, Purina, Hills, and O'l Roy. **Tip:** Look for animal-based protein near the top of the list of ingredients!

Cats **MUST HAVE** a diet that includes taurine. Taurine is an amino acid found **only** in animal-based proteins. If a diet is low in taurine, it has to be added. Cats need taurine for eyes, heart, immune response and reproduction. **Tip:** If you see taurine listed as an added ingredient, it means the diet does not have enough animal proteins.

Animal-derived fats include chicken fat, pork fat, fish oil, and beef tallow. Plant-derived fats include corn oil, sunflower oil, and flax oil.

There are two types of fat used in animal food. One is omega-6 (fats present in animal fats and plant oils) and omega-3 (fats from ocean fish and flax). Omega-6 fats are essential. Omega-3 fats are beneficial. Fats provide energy and build hormones and cell membranes. The first thing you notice when animals are fed proper amounts of fat is that their skin and coat will be visibly great. Omega-3 oils are anti-inflammatory fats, while omega 6 will initiate inflammation.

FIBER

Dietary fiber is important in promoting peristalsis, intestinal health, and proper stool texture. There are two types of fiber. Fermentable fiber includes beet pulp, rice bran, apple pomace, citrus pulp, pea fiber, and tomato pomace. Non-fermentable fiber includes cellulose, peanut hulls, corn bran, and soybean hulls. Fermentable fiber is used by the intestinal flora and promotes proper balance of bacteria in the gut. Non-fermentable fiber provides volume and bulk to the stool that promotes faster movement through the bowel, but has no nutritional benefits for the animals. Diets with fermentable fiber are better for your pet.

CARBOHYDRATES

Carbohydrates are well known as a source of fast energy and are important for a well balanced diet. Carbohydrates come to diets in two forms; i.e., well refined carbs and complex carbs. Well refined carbs get used very quickly by animals and provide a quick surge of sugars and an insulin spike. This makes animals hungry, and they look for more food to eat. Complex carbs provide a slow release of sugars and are best in diets.

What is splitting and how I can read between the lines? Splitting is a very smart cheating game manufactures play. Since ingredients have to be listed by weight in percentages, putting the same ingredient in two different forms on the label allows the company to “push” protein to the top of the ingredients list to make you believe you are getting more of the product. Here’s an example.

Bag # 1 contains

Ground rice 35%

Lamb meal 25%

Bag #2 contains

Lamb meal 25%

Ground rice 20%

Rice flour 15%

In both bags you are getting the same amount of lamb meal. But, by splitting rice into two forms, lamb meal can be listed as the first ingredient in bag #2. That might convince you that Bag #2 is better a diet because the first ingredient is animal protein not ground rice. In truth there is no difference!

**SO...WHAT SHOULD YOU LOOK FOR WHEN SHOPPING
FOR FOOD FOR YOUR PET?**

- Product Purpose
- “Feeding Test” proof
- Animal Proteins
- Omega-3 Fats
- Fermentable Fibers

Also consider

- Freshness date
- Toll-free phone number
- Satisfaction guarantee
- Qualified pet professionals

WATCH OUT FOR

- Name “Games”
- Myth of With
- Split Ingredients

Your diligence and informed decision-making will help insure that your pet gets the best diet available for its life stage and life style.