

**Deciphering Food Labels:**  
**Here's what you need to know**  
**to understand the nutritional**  
**content of your cat's food**

By Jen Olson, DVM

Many cat parents ask, "What should I feed my cat?" There's no quick answer to this, but let's begin by looking at the unique nutritional needs of the feline:

1. In general, cats should eat high-protein, moderate-fat, low carbohydrate foods.
  - Cats need two to three times more protein than omnivorous animals, such as dogs.
  - Cats lack or have low activity of the enzymes to break down carbohydrates.
2. Taurine, an essential amino acid, is a dietary requirement. Other species can synthesize taurine, but cats lack the enzymes to do so and, therefore, they must consume it in their diet.
3. Cats have increased needs for the water-soluble B vitamins: B1 (thiamine), B3 (niacin), B6 (pyridoxine), and B12 (cobalamin), because of their rapid utilization of these nutrients.
4. And, of course, the best diet formulation is no good if a cat won't eat it, so palatability is crucial, as well.

### **The Product Name**

**Here's the sad truth:** It can be difficult, if not impossible, to assess the nutritional value of a cat food just by looking at the label. However, let's look at what is on labels and what that information does mean. The product name itself is regulated and you might be surprised to learn that subtle wording changes reflect a very different product makeup.

To be called "*Tuna Cat Food*," the named constituent (tuna) must make up **95 percent** or more of the total product by weight. To be called "*Tuna Dinner, Tuna Recipe, Tuna Platter, Tuna Entrée or Tuna Formula*," the ingredient (tuna) or combination of ingredients (turkey and giblets, for example) should constitute at least **25 percent** of the product. To be called "*Cat Food With Tuna*," the listed ingredient should comprise at least **3 percent** of the food by weight. So read carefully, as Tuna Cat Food and Cat Food With Tuna are very different products.

### **Guaranteed Analysis**

There are two sections on every bag or can of cat food: (1) the **guaranteed analysis** and (2) a **list of ingredients**. A big shortcoming of pet food labels, though, is that in both of these sections, the information is presented on an as-fed basis, not on a dry-matter basis (DMB). Dry-matter basis looks at the amount of an ingredient without moisture, whereas an as-fed basis looks at ingredients in their

current form in the bag/can/pouch, which includes any water weight. Especially in canned foods, the moisture content is considerable and can distort as-fed nutritional information.

The guaranteed analysis shows the percentage of four nutrients present in the food:

- Minimum crude protein - %
- Minimum crude fat - %
- Maximum moisture - %
- Maximum crude fiber - %

Some companies might voluntarily include guarantees for other nutrients, often to highlight their presence.

### **Protein Source and Digestibility**

The minimum crude protein label should have a big red asterisk next to it. Protein, especially quality protein, is the most expensive ingredient in any pet food. Crude protein is estimated by chemical analysis of nitrogen quantity. This process does not discern the source of the protein (animal or plant) or the digestibility of the protein, both of which are crucial to its nutritional value.

The best protein source for a carnivore is animal/meat protein. Plant proteins will not have the proper amino acid profile to meet a cat's needs.

It is paramount that ingested protein be biologically usable or digestible. Chicken feathers, for example, are 98 percent protein but 0 percent digestible. Currently, manufacturers are not required to list digestibility on the label. However, the term "highly digestible" is a legal term, and foods with this designation need to have protein that is at least 90 percent digestible. Foods without this statement often contain protein sources that are only 50 to 60 percent digestible. So, recognize that crude protein, as listed in the guaranteed analysis, can be misleading.

### **Calories and Ingredients**

Calorie statements are not currently required on pet food labels. Caloric content, similar to human foods, will be recommended by the Association of American Feed Control Officials starting in 2014, but it might take years for recommendations to turn into reality. Luckily, calorie content might be available online or from the manufacturer. **An average 10- to 11- pound indoor cat can maintain a healthy weight with 180 to 220 calories per day**, but individual adjustments might need to be made to achieve goal body condition.

When looking at the ingredient list, focus on the first five ingredients, because those make up the bulk of the product. Ingredients are listed in descending order by weight. We want commercial foods to mimic the natural carnivore diet. As such, the food should be heavy in meat and meat byproducts.

Don't be startled by the term "byproducts," because these ingredients have a worse reputation than they deserve. Byproducts are a normal part of a feline carnivore diet and, like it or not, cats naturally eat much more than just the skeletal muscle of their prey. Byproducts can consist of nutritious organ meat such as liver, lungs and kidneys, or they can be less nutritious feet and feathers.

Cat foods with meat byproducts as a first ingredient are still much better than foods that list grains (such as corn, corn gluten meal or rice) as a first ingredient. The main ingredient in a carnivore's diet should not be grain; it should be animal protein.

### **The Bottom Line**

Cats need large quantities of quality digestible animal-based protein, moderate fat and very few carbohydrates. Based on our current understanding, the ideal cat diet should be comprised of 50 to 60 percent protein, 5 to 10 percent carbohydrates and 20 to 40 percent fat on a dry-matter basis. In fact, a recent research article found that protein requirements for cats to maintain lean body mass might be more than the current AAFCO recommendations. When you look at your cat, just picture a little lion in your house that needs to eat a lot of protein.

### **GLOSSARY (for pet labels)**

These buzzwords deserve attention and definition.

- **Organic:** Products must comply with USDA's National Organic Program (NOP) regulations which cover ingredient sourcing, handling, manufacturing and certification of products. This is a very strict definition. Also, be aware that a product could have a single organic ingredient and not be entirely organic.
- **Natural:** This term relates to ingredients or products from plant, animal, or mined sources that are unprocessed, except for good manufacturing practices. Natural is not interchangeable with organic. It is still possible to have low-quality, poorly digestible ingredients.
- **Holistic :** This label can be put on any product without meeting any standards or requirements; companies can use it as they wish. Holistic has no legal enforceable definition, so this should not sway you to purchase a product.
- **Human-grade or human-quality:** This term was determined to be misleading and so now it can only be used if the food is made in a human food-approved plant.
- **Grain-free:** These diets can still be extremely high in carbohydrate, as some companies will use carbohydrate-rich potatoes and peas. The presence or absence of grains is not as significant as the amount of carbohydrates in the food. Cats rarely have grain allergies – Most allergic triggers are protein sources.
- **Gluten-free:** There are no medical peer-reviewed reports of gluten allergies in cats to date. Avoiding gluten for your cat is like avoiding peanuts even if you are not allergic.
- **Clinically proven:** This claim must be supported by two clinical studies.

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