

Cat Nutrition Requirements FAQs

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FAQs

cat nutrition requirements

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Can I feed my cat dog food?

No. Cats are not small dogs. Your cat's nutritional requirements are not the same as those of a dog. Nutritional deficiencies will occur if a cat is consistently fed dog food. [\[Back to Top \]](#)



What are the special dietary needs of cats?

Cats require certain nutrients that dogs do not, and require others in higher quantities than dogs. Some examples include:

- Arachidonic Acid
- Arginine
- Niacin
- Taurine
- Vitamin A
- More protein

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What is arachidonic acid, and why does my cat need it?

Arachidonic acid is one of the essential fatty acids. Arachidonic acid is necessary to produce an inflammatory response. In many cases, such as in allergies, the goal is to suppress the inflammatory response. But in other cases, the response is a necessary means by which the body can protect itself. Arachidonic acid also helps to regulate skin growth, is necessary for proper blood clotting, and is necessary for the reproductive and gastrointestinal systems to function properly. Arachidonic acid is found in animal fats which must, therefore, be included as part of the diet.

Many animals can manufacture arachidonic acid from linoleic acid. Cats cannot because their liver lacks the enzyme to convert linoleic acid to arachidonic acid. Dogs can produce arachidonic acid on their own, assuming they consume enough linoleic acid by eating proper fats.

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What is arginine, and why does my cat need it?

Arginine is an amino acid and serves as a building block for proteins and is necessary for internal chemical functions. Ornithine, another amino acid, is manufactured in the body and is necessary because it binds the ammonia produced from the breakdown of protein. Most animals manufacture the amino acid ornithine through various processes, some of which require arginine.

In cats, the only method to produce ornithine is to convert it from arginine. If cats are deficient in arginine, there will not be enough ornithine to bind the ammonia, and severe signs such as salivation, vocalization, incoordination, and even death can result from the high ammonia levels in the blood. These signs often occur several hours after a meal, when most of the ammonia is produced. Cats are sensitive to even a single meal lacking sufficient arginine, and are unable to produce it on their own. Although still essential for dogs, dogs require less arginine in their diets.

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What is niacin and why does my cat need it?

Niacin is a B vitamin and is necessary for many body functions. Many animals can synthesize niacin from the amino acid tryptophan. Cats, however, cannot manufacture niacin in sufficient quantities and thus require higher amounts in their diet. Niacin deficiencies can lead to loss of appetite and weight, inflamed gums, and hemorrhagic diarrhea.

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What is taurine, and why does my cat need it?

Taurine is an amino acid which is necessary for proper bile formation, eye health, and proper function of the heart. Cats require a high amount of taurine for their body functions, yet have limited enzymes which can produce taurine from other amino acids such as methionine and cysteine. Therefore, they need a diet high in taurine. Taurine is not found in plant tissues, so cats must consume meat to obtain it. If taurine is deficient, signs such as a heart condition called dilated cardiomyopathy, retinal degeneration, reproductive failure, and abnormal kitten development can

occur.

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Why does my cat need the active form of Vitamin A?

Cats lack the enzyme which can convert beta-carotene to retinol, the active form of Vitamin A. Therefore, they require a pre-formed Vitamin A, which is present only in foods of animal origin, and is usually included in cat foods as retinyl palmitate or acetate. Deficiencies of Vitamin A are rare, but signs include night blindness, retarded growth, and poor-quality skin and coat. Dogs have the intestinal enzymes to break down plant carotenoids and convert these into active Vitamin A.

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Why do cats need protein?

Proteins are necessary for all aspects of growth and development and are very important in structural makeup and the immune system. In addition, they are burned as calories and can be converted to and stored as fat.

Cats actually require 22 amino acids (the building blocks that make up proteins). Cats can synthesize 11 of these amino acids; the remaining ones - essential amino acids - must be consumed. Essential amino acids for cats include: arginine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, valine, and taurine. A deficiency in any of the amino acids can cause health problems.

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How much protein do cats need?

Cats need more protein than dogs. They not only use it to build muscles and other organs, they also use it for energy. If dietary protein is in a low quantity or not available, the cat's body will soon start breaking down the protein in her own muscle. To avoid this, cats must consistently consume a high level of protein.

Protein requirements can vary greatly. During the rapid growth stages kittens need more protein. The Association of American Feed Control Officials (AAFCO) has determined that adult cat foods must have a minimum protein level of 26%, on a dry matter basis; kittens and reproductively active animals must have 30%, on a dry matter basis.

To get many of the amino acids cats need, the protein source has to be a meat source, not a vegetable source. Meat sources are higher quality proteins and cats can digest them easier. We are proud to say that highly-digestible real meat or poultry is the first or second ingredient in all of our cat foods. [[Back to Top](#)]



What is dry matter basis, and how do I determine it?

"Dry matter basis" in a pet food refers to is the amount of nutrients included in the food when the moisture content is factored out. All pet foods have different levels of moisture - some canned foods can have up to 80% and some dry foods can have as little as 6%. Because the listings on the label are for the food as it is fed (with moisture included), calculating the nutrients in pet food on a dry matter basis can help you accurately compare crude protein, fat, and fiber between brands and between canned and dry.

Converting nutrient values from an "as fed" basis to a dry matter basis

is not at all complicated. First, determine the amount of dry matter in the food by subtracting the percent moisture from 100 (for example, a dry pet food with 10% moisture will have 90% dry matter). Next, look at the guaranteed analysis of the food label and find the crude protein level (32%, for example). Then, divide the crude protein level by the dry matter (32 divided by 90 is 35.5%) to determine the amount of protein on a dry matter basis. You can also apply this formula to determine the amount of fat, fiber, etc. in your pet's food on a dry matter basis. This same formula can also be used on canned food.

Now let us compare this dry pet food to canned pet food with 80% moisture (and 20% dry matter). The canned food label shows 10% protein. Dividing the 10% protein by 20% dry matter results in 50% protein on a dry matter basis. This specific comparison shows that the canned food has more protein per pound on a dry matter basis than the dry food. You can perform similar comparisons for fat, fiber, and so on.

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Why is there ash in your brand of cat food?

Ash, in some amount, will be present in any pet food diet since it is actually a sum of the essential minerals your pet needs including calcium, phosphorus, sodium, potassium, magnesium, and manganese. Ash is actually the inorganic material that remains from burning a measured food sample at 600°C for two hours. Ash was once thought to be the cause of urinary tract disease in cats. Researchers now agree that this is not the case. The levels of specific minerals such as calcium and magnesium, and the pH of the urine can play a role in certain urinary tract diseases. Mineral levels and pH values that are too high, or too low, can contribute to disease. Drs. Foster & Smith healthy cat foods have been formulated to contain the proper amount of minerals and produce a urine pH within the recommended range for healthy cats.

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