

# FEEDING YOUR CAT:

# Wet vs Dry

## KNOW THE BASICS OF FELINE NUTRITION-----

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Diet is the brick and mortar of health. This handout lays out some often-ignored principles of feline nutrition and explains why cats have a better chance at optimal health if they are fed a quality canned food diet instead of dry kibble. Putting a little thought into what you feed your cat(s) can pay big dividends over their lifetime and very possibly help them avoid serious, painful and costly illnesses.



### Cats Need *Animal*-Based Protein

Cats are obligate (strict) carnivores and are very different from dogs in their nutritional needs. What does it mean to be an ‘obligate carnivore’? It means that your cat was built by Mother Nature to get her nutritional needs met by the consumption of a large amount of animal-based proteins (meat) and derives much less nutritional support from plant-based proteins (grains). It means that cats lack specific metabolic (enzymatic) pathways and cannot utilize plant proteins as efficiently as animal proteins. It is very important to remember that not all proteins are created equal. The protein in dry food, which is heavily plant-based, is not equal in *quality* to the protein in canned food, which is meat-based. The protein in dry food is, therefore, less bioavailable to your cat.

Do not be confused by the listing of the protein percentages in dry food compared to canned food. At first glance, it might appear that the dry food has a higher amount of protein than the canned food—but this is *not* true on a *dry matter* basis which is the accurate way to compare the two foods. Most canned foods, when figured on a dry matter basis, have more protein than dry food. And remember, even if this were not the case, the percentage numbers do not tell the whole story. It is the protein’s bioavailability that is critical.

In their natural setting, cats—whose unique biology makes them true carnivores--would not consume the high level of carbohydrates (grains) that are in the dry foods that we routinely feed them. You would never see a wild cat chasing down a herd of biscuits running across the plains of Africa or dehydrating her mouse and topping it off with corn meal gluten souffle! In the wild, your cat would be eating a high protein, high-moisture content, meat-based diet, with a moderate level of fat and with only ~6-9% of her diet consisting of carbohydrates. The average dry food contains 35-50% carbohydrates. Some of the cheaper dry foods contain even higher levels. This is NOT the diet that Mother Nature intended for your cat to eat! A high quality canned food, on the other hand, contains ~3-6% carbohydrates. Cats have a physiological decrease in the ability to utilize carbohydrates due to the lack of specific enzymatic pathways that are present in other mammals, and the lack a salivary enzyme called amylase. Cats not only have no dietary need for carbohydrates, but too many carbohydrates can actually be *detrimental* to their health, as outlined below. With this in mind, it would be as illogical to feed a carnivore a steady diet of meat-flavored cereals as it would be to feed meat to a vegetarian like a horse or a cow, right? So why are we continuing to feed our carnivores like herbivores? Why are we feeding such a species-inappropriate diet? The answers are simple. Grains are cheap. Dry food is convenient. Affordability and convenience sells. But is a carbohydrate-laden, plant-based, water-depleted dry food the best diet for our cats? Absolutely not. They are designed to eat meat – not grains.

### Cats Need Plenty of Water *With* Their Food

Another extremely important nutrient with respect to overall health is water. It is very important for a cat to ingest water *with* its food, as the cat does not have a very strong thirst drive. This is a critical point. This lack of a strong thirst drive leads to low-level, chronic dehydration when dry food makes up the bulk of their diet. Cats are designed to obtain most of their water *with* their diet since their normal

prey contains ~70% water. Dry foods only contain ~10% water whereas canned foods contain ~78% water. Canned foods therefore more closely approximate the natural diet of the cat and are better suited to meet the cat's water needs. A cat consuming a predominantly dry-food diet does drink more water than a cat consuming a canned food diet, but in the end, when water from all sources is added together (what's in their diet plus what they drink), the cat on dry food consumes approximately HALF the amount of water compared with a cat eating canned foods. This is a crucial point when one considers how common kidney and bladder problems are in the cat.

### Learn How To Read a Pet Food Ingredients Label

The words "natural" or "premium" are not necessarily indicative of high quality!

Look for meat as the first ingredient. This will be listed as "chicken", "turkey", etc. NOT "chicken meal", or "chicken by-product meal" or "chicken by-products", or "chicken broth". The term "meal" denotes that it has been rendered (cooked for a long time at very high temperatures) and is lower quality than meat that has not been as heavily processed. By-products can include feet, intestines, feathers, egg shells, etc. and are less nutritious than meat.

Grains should be absent or, at least, minimal in amount. This means if they are present, they should not be among the first three ingredients. Corn and wheat are thought to be common allergens when compared to other grains such as rice, oats or barley so it is best to choose a food that does not contain corn or wheat.

### Common Feline Health Problems and Their Ties to Diet

There is a very strong and extremely logical connection between the way that we are currently feeding our obligate carnivores and many of the life-threatening diseases that afflict them.

**Diabetes:** Diabetes is a very serious – and difficult to manage – disease that is very common in cats. Why is it so common? The species-inappropriate high level of carbohydrates in dry food wreaks havoc on the blood sugar level of an obligate carnivore. The blood sugar level rises significantly upon ingestion of dry food. With chronic hyperglycemia (high blood sugar) the insulin producing cells in the pancreas down-regulate, or "burn out," leading to diabetes.

**Kidney Failure:** Kidney disease is probably the Number One cause of mortality in the cat. It is troubling to think about the role that chronic dehydration plays in feline kidney failure. And remember, cats are chronically dehydrated when they are on a diet of predominantly dry food.

**Cystitis (bladder inflammation) and Bladder/Kidney Stones:** Cystitis and stones are extremely common in the cat. The concentration (specific gravity) of the urine is a critical factor in contributing to, or preventing, these serious health issues. Some cats have a higher tendency to form crystals in their urine. Cats on dry food have more highly concentrated urine (higher specific gravity) which means that a higher concentration of stone-forming crystals will be present in the urine. This increases the chance of producing life-threatening stones. Also, a very concentrated level of crystals acts like 60-grit sandpaper on the delicate bladder wall, which can lead to painful cystitis. Cystitis can lead to inappropriate urination (urinating outside of the litter box) and stones can cause a fatal rupture of the bladder. (Any cat that is repeatedly entering the litter box but not voiding any urine is in need of IMMEDIATE medical attention!) Cats eating canned food are more appropriately hydrated, and therefore, have more dilute urine (lower specific gravity). This greatly decreases their chance for urinary tract problems.

**Inflammatory Bowel Disease (IBD):** IBD is thought to be a common cause of vomiting and diarrhea in the cat. There are many unanswered questions with respect to this disease process, but it seems logical to start to "treat" a gastrointestinal problem in the cat with a species-appropriate diet. Too often these cats are treated with a high level of steroids and a so-called "prescription" DRY diet. I feel very strongly that this common therapeutic regimen needs to be re-evaluated. There are an impressive

number of anecdotal reports of cats that were terribly ill with IBD exhibiting dramatic improvement when ALL dry food was removed from their diet. Taking it even one step further, there are many reports of cats with IBD that improved tremendously on a *balanced*, grainless, raw diet. (See Resource List for more information.)

**Obesity:** Obligate carnivores are designed to meet their energy needs with a high protein, moderate fat diet. Carbohydrates are minimally used. Those that are not used for energy are converted to and stored as fat. The so-called "light" diets that are on the market have targeted the fat content as the nutrient to be decreased, but in doing so, the pet food manufacturers have increased the *grain* fraction, leading to a higher level of carbohydrates. Hence, many overweight cats eating these "light" diets are still obese. These products are among the most species-inappropriate diets available to cat caretakers.

**Hepatic Lipidosis (Fatty Liver Disease):** This is the most common metabolic liver disease of cats. Overweight cats that go longer than 48 hours without eating, for any reason, are in danger of developing this serious, and often fatal, disease. Feeding a high-protein, low-carbohydrate diet helps keep cats at an optimal, healthy body weight.

**Dental Disease:** Long-standing claims that cats have less dental disease when they are fed dry food versus canned food are grossly overrated, inaccurate, and are not supported by recent studies. First, dry food is hard, but brittle, and merely shatters with little to no abrasive effect on the teeth. Second, the high carbohydrate (read: sugar) level in dry foods has been shown to *cause* dental decay. Third, many cats swallow the majority of their dry food whole and thus receive minimal benefit from chewing motion. Finally, a meat-based diet results in an acidic oral environment which may actually prevent some forms of dental disease. There are many factors that contribute to dental disease in the cat such as genetics, viruses, and diet. There remain many unanswered questions concerning the impact of diet on dental health, but feeding a high starch, species-inappropriate dry diet is a negative factor. Perhaps, a more natural way to promote dental health is to feed large chunks of raw meat. (See below for 'Home Prepared Diets'.)

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### **Transitioning Dry Food Addicts to Canned Food**

This is the hard part! Cats, like children, often resist what is best for them. The key is to do it slowly and with patience. Some cats that have been on dry food their entire lives will be quite resistant to the diet change. These cats may take several weeks or longer to make the transition to a healthier diet. Others will take to it with the attitude of "finally – an appropriate diet for my species!!" For some cats, you will need to use hunger to help with the transition. However, I would not let them go longer than 24 hours without eating and some of you may 'weaken' sooner...like I did. At that point, you may want to give them only half of what they would normally eat, just to keep hunger as an incentive. I prefer to try to 'convince' them that a high quality canned food really is good for them, rather than to starve them into it. Here are some tricks for the stubborn ones:

If your cat has been eating dry food on a free-choice basis, take up the food and establish a schedule of twice a day feedings. Leave the food down for 30 minutes. Once your cat is on a schedule you will notice that he is more enthusiastic about food.

Cats prefer their food at "body temperature", but do not warm the food more than once or twice as this will promote bacterial growth.

Sprinkle a very small amount of tuna – or any other favorite treat (some cats do not like fish) - on the top of the canned food and then once they are eating this, start pressing it into the top of the new food. (The "light" tuna is better than the fancy white tuna because it has a stronger smell. Or, Trader Joe's makes a Cat Tuna that is very stinky!)

Pour a small amount of the water from the tuna over the top of the canned food.

Crush some dry food and sprinkle it on the top of the new food.

If you have a multiple cat household, some cats like to eat alone so you may need to take these cats into a

separate room and feed them canned food/tuna 'meatballs' by hand. This worked for one of my stubborn, timid cats. In a quiet setting, he would eat from my hand and then, finally, from a bowl. I'm not sure who was being trained.

**Home-Prepared Diets:** These diets can be the absolute best or the very worst thing that you can do for your cat. You must do your homework and educate yourself with regard to preparing a balanced diet for a cat. A cat cannot live on meat alone. There is not enough calcium, taurine, essential fatty acids, etc. in just plain meat, so you must be careful to prepare the diet using the necessary ingredients—and always remember that calcium is not an optional "supplement," but a very critical component of the diet. Use extreme caution if you choose to buy a pre-ground raw pet food (as opposed to making it yourself using your own grinder). Personally, I would advise against these diets as pre-ground meat is much more likely to be contaminated with high levels of bacteria when compared to whole meat that you would grind yourself. Many people have a strong negative reaction to feeding a raw meat diet but in reality, a properly handled and prepared raw diet has much less bacteria in it than many commercial pet foods. Commercial pet foods also may contain high levels of mold toxins from grains which is never a danger in a home-prepared, grainless diet. Cats are very different from humans with respect their susceptibility to 'food poisoning'. Cats have a much shorter transit time through their intestinal tract than humans do. (~12 hours for the cat versus ~35-55 hours for the human.) This is a very important point because the more time bacteria spend in the intestines, the more they multiply, eventually leading to intestinal upset. Purchasing free-range, antibiotic- and hormone-free whole meats from a reputable butcher such as Whole Foods Market and adhering to safe meat handling practices are important steps to take when preparing a raw food diet. Good choices include dark poultry meats (such as thighs and drumsticks which are more nutritious than white meats if you choose to not grind a whole carcass) or rabbit. (See Resource List for more information on recipes for home-prepared diets.)

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Congratulations if you have made it to this point in the handout! You must really care about feeding your cat a healthy diet and are open to new ideas regarding their nutritional needs. This paper has outlined what I feel is optimal nutrition for an obligate carnivore. The most common complaint that I hear from people is that their cat will NOT eat canned food and will ONLY eat dry food. My cats fell into this category which was not surprising since they had been on a 100% dry food diet their entire lives and range in age from 5-10 years. For the past 3 months, I have been patiently convincing them that they are carnivores and need meat – and not in a dry, overly processed form. It has been a little rough, at times, since 2 of my cats get very crabby with their housemates when they are hungry. These boys were then taken in a separate room and fed some dry food. I do not like unrest in my home! Surprisingly, one of my most stubborn dry food addicts is now happily eating a home-prepared raw food diet that he actually likes better than the canned food. To be very honest, it does my heart good to see my little carnivores gnawing on raw meat – eating a diet that was meant for their species! My personal goal is to have my cats eating a species-appropriate diet consisting of raw and cooked meats and organs using a properly balanced recipe, plus a high quality canned food – for variety and convenience. When I first started the diet transition, I was going to be satisfied with 'giving in' to my dry food addicts and letting their diet comprise 10-20% dry food, but I have seen their addiction slowly wane to the point that it is no longer an issue. However, I certainly don't feel like I would have been a horrible 'cat mom' if I had chosen to continue feeding a little dry food. Everyone's lives are different and the goal of this handout is to arm you with knowledge about the special dietary needs of your cat so you can strike a balance that works for both of you.

The next page contains a list of some of the higher quality commercial canned cat foods and some resources for further information on feline nutrition including raw diet recipes.

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## COMMERCIAL CANNED FOODS FOR YOUR FELINE CARNIVORE

No commercial cat food you buy is without some drawbacks, but listed below are some canned foods made by companies that have gone the extra mile to minimize grains and other plant-based 'fillers' in their foods and use a high quality meat as the primary ingredient. The listed foods are also void of any questionable preservatives such as BHA, BHT, and ethoxyquin and do not contain any byproducts. None of the listed products contain corn or wheat. This list is not comprehensive. Companies also have variations in ingredients within their own product line. Remember to always read the ingredient list and bear in mind that just because a label says 'premium' or 'natural', this does not necessarily mean that the food inside the can is appropriate for your carnivore. Websites are listed for your convenience in order to find the stores nearest you that carry the company's products. (Call the stores to see if they do carry the products.)

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**Wysong's Plain Canned Meats Plus Supplement:** (<http://www.wysong.net> ) Several of Wysong's regular canned diets have undesirable grains in them but the plain canned meats do not. You must add Wysong's "Call of the Wild" product to ensure that the meals are properly balanced. These products are relatively expensive. Sold at Animal Lovers.

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**Wysong's Archetype:** This is not a canned food. It is a cold-processed grainless diet, containing high quality meats, bones, organs, probiotic cultures, and other supplements. You add water to hydrate this food and then serve. This product is relatively expensive.

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**Wellness:** (<http://www.oldmotherhubbard.com/> ) Wellness is the only grainless canned diet on this list other than the Wysong Canned Meats. It also has the highest taurine level ? matched only by Innova and PetGuard. Sold at Centinela Feed & Pet Supplies.

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**Natural Balance:** ([www.naturalbalanceinc.com](http://www.naturalbalanceinc.com) ) Sold at Petco, Pet Care Co., 7 Dog Heaven, Buzz's, etc.

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**Innova:** (<http://www.naturapet.com/display.php?d=home-tab> ) Sold at Centinela Feed & Pet Supplies and at C&C Pet Supplies.

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**Felidae:** (<http://www.canidae.com/> ) Sold at 7 Dog Heaven, Pet Care Co., Animal Lovers, Centinela, etc.

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**Pinnacle, APD, Avoderm:** (<http://www.breeders-choice.com/> ) Sold at Petco, Kritter Korral, Animal Lovers, etc.

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**PetGuard:** ([www.petguard.com](http://www.petguard.com) ) Sold at Whole Foods Market.

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**Precise:** (<http://www.precisepet.com/> ) Sold at Whole Foods Market.

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**Active Life:** ([www.activelifep.com](http://www.activelifep.com) ) Sold at Pawfect World, Buzz's.