

Feeding Your Cat: Know the Basics of Feline Nutrition

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Diet is the brick and mortar of health. This paper lays out some often-ignored principles of feline nutrition and explains **why cats have a *much* better chance at optimal health if they are fed a 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, life-threatening, and costly illnesses. An increasing number of nutrition-savvy veterinarians are now strongly recommending the feeding of canned food instead of dry kibble. However, many veterinarians are still recommending/condoning the feeding of dry food to cats. Sadly, this species-inappropriate source of food only serves to promote disease in our cats as discussed below.

Like medical doctors for humans, veterinarians receive very little training in school regarding nutrition. And what *is* discussed is often taught by representatives of large pet food companies, or the curriculum is sponsored - and heavily influenced - by members of the commercial pet food industry. This represents a significant conflict of interest. After we leave veterinary school, the most commonly available source for our nutrition 'education' continues to be the large pet food companies that manufacture so-called 'therapeutic/prescription' diets. Unfortunately, the result is that veterinarians are not always the best source of nutrition advice.

Dry food addicts

If your cat is a dry food addict, please see ***Tips for Transitioning Dry Food Addicts to Canned Food*** in the sidebar at catinfo.org. *All* cats can be switched to a water-rich, low-carb diet if their caregivers are *very patient* and try enough tricks.

What's wrong with dry kibble - including *any* 'prescription' diet that is sold by your veterinarian?

The three key negative issues associated with dry food are:

- 1) **water content is too low** - predisposing your cat to serious and life-threatening urinary tract diseases including extremely painful and often fatal (and very expensive to treat) urethral obstructions. See Opie's pictures at catinfo.org (*Urinary Tract Diseases*) for a good look at the tremendous suffering caused by feeding cats water-depleted diets.
- 2) **carbohydrate load is too high** - possibly predisposing your cat to diabetes, obesity, and intestinal disease - note that low-carb dry foods are NOT healthy diets since they are still *water-depleted* and are *harshly cooked* resulting in nutrient loss/alteration
- 3) **type of protein - too high in plant-based** versus animal-based proteins - cats are obligate carnivores and are designed to eat meat, not grains/plants - grains only serve to enhance the profit margin of the pet food company and do not promote the health of your cat

Other negative issues include:

- ◆ bacterial contamination (can lead to vomiting and diarrhea),
- ◆ fungal mycotoxins (contained in grains and are extremely toxic),
- ◆ insects and their feces (can cause respiratory problems),
- ◆ ingredients that often cause allergic reactions, and
- ◆ all dry food is harshly cooked which destroys/alters vital nutrients.

My Cat is Doing Just "Fine" on Dry Food!

I often hear people make the above statement. However consider every living creature is “fine” until outward signs of a disease process are exhibited. That may sound like a very obvious and basic statement but if you think about it.....

- ◆ Every cat on the Feline Diabetes Message Board was “fine” until their owners started to recognize the signs of diabetes.
- ◆ Every cat with a blocked urinary tract was “fine” until they started to strain to urinate and either died from a ruptured bladder or had to be rushed to the hospital for emergency catheterization.
- ◆ Every cat with an inflamed bladder (cystitis) was “fine” until they ended up in pain, passing blood in their urine, and missing their litter box - soiling the home through no fault of their own.
- ◆ Every cat was ‘fine’ until the feeding of species-inappropriate, hyperallergenic ingredients caught up with him and he started to show signs of food intolerance/IBD (inflammatory bowel disease) or asthma.
- ◆ Every cat was "fine" until that kidney or bladder stone got big enough to cause clinical signs.
- ◆ Every cancer patient was “fine” until their tumor grew large enough or spread far enough so that clinical signs were observed by the patient.

The point is that diseases 'brew' long before being noticed by the living being. This is why the statement “but my cat is healthy/fine on dry food” means very little to me because I believe in **preventative nutrition**. I don't want to end up saying “oops.....I guess he is not so fine now!!” when a patient presents to me with a medical problem that could have been avoided if a species-appropriate diet (low-carb canned or balanced homemade food - not dry food) had been fed to begin with. Of course, in order to be on board with the 'preventative nutrition' argument, a person has to understand the following facts:

- ◆ **All urinary tract systems are much healthier with an appropriate amount of water flowing through them.**

Painful, life threatening, and very expensive-to-treat urinary tract obstructions commonly occur when cats (especially males) are fed dry food. Again, see Opie's pictures at catinfo.org (*Urinary Tract Diseases*). These obstructions are serious medical emergencies but are extremely uncommon among cats fed canned food - especially if extra water is added to the canned food. Also, cats (males and females) that are fed a water-rich diet of canned food are much less likely to end up with painful cystitis.

◆ **Cats inherently have a low thirst drive and need to consume water *with* their food.** A cat's normal prey is ~70 - 75% water; dry food is only 5-10% water. Contrary to the wishful thinking of cat owners, cats do *not* make up this deficit at the water bowl. Several studies have shown that cats on canned food consume *double the amount of water* when compared to cats on dry food when all sources (food and water bowl) are considered.

◆ **Carbohydrates wreak havoc on some cats' blood sugar/insulin balance predisposing them to diabetes.** Dry foods, as well as some canned foods, are high in carbohydrates with some much worse than others. Note that “grain-free” does not always mean “low-carb” since potatoes and peas are often used instead of grains.

◆ Cats are **strict carnivores** which means they are designed to get their protein from meat – not from the high level of grains/peas/potatoes found in dry food.

◆ Contrary to a popular myth, **dry food exerts no beneficial effect on dental health** and has no scientific support for its use in preventing dental disease. It is often swallowed whole but even if it is chewed, it is brittle and simply shatters – providing no abrasive force against the teeth. That said, canned food also does not provide any abrasive force and is no better (but no worse) for dental health when compared to dry food. Brushing your cat's teeth daily is the best way to keep their mouth healthy. Also, supplying chunks of meat to chew on is also helpful. See *Making Cat Food – Dental Health* section at catinfo.org Most people re-think this issue after they receive their vet bill.

Consider practicing **preventative nutrition** before your furry buddy ends up in a diseased state that could have been prevented with proper nutrition. Read on if you would like more details regarding a feline species-appropriate diet. Some information will be repeated from above to reinforce the critical points.

Cats Need Plenty of Water *With* Their Food

This is a very important section because it emphasizes why even the low-carb, grain-free dry foods are not optimal food sources for your cat. **Keep in mind that the cheapest canned food is better than *any* dry food on the market.**

Cats do not have a very strong thirst drive when compared to other species. Therefore, it is critical for them to ingest a *water-rich* diet. Cats are designed to obtain most of their water from their diet since their normal prey is approximately 70 percent water. Dry foods are harshly cooked down to only 5-10 percent water whereas canned foods contain approximately 78 percent water. It is clear that canned foods 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 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 to a cat eating canned food.

This substantially lower water intake sets cats up for significant kidney, and bladder diseases, as well as urethral obstructions which are excruciatingly painful, costly to treat, and can be fatal.

Think of canned food as flushing your cat's urinary tract several times a day. This is a very important tool to keep your cat from developing urinary tract problems including life-threatening urethral blockages, infection, inflammation (cystitis), and possibly chronic kidney disease which is a leading cause of death in cats.

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/organs) - not plant-based proteins (grains/vegetables).

It is very important to remember that not all proteins are created equal.

Proteins derived from animal tissues have a complete amino acid profile. (Amino acids are the building blocks of proteins. Think of them as pieces of a puzzle.) Plant-based proteins do not contain the full complement (puzzle pieces) of the critical amino acids required by an obligate carnivore. The quality and composition of a protein (are all of the puzzle pieces present?) is also referred to as **its biological value**.

Humans and dogs can take the pieces of the puzzle contained in the plant protein and, from those, make the missing pieces. Cats cannot do this. This is why humans and dogs can live on a vegetarian diet but cats cannot. (Note that I do *not* recommend vegetarian diets for dogs.)

Generally speaking, the protein in dry food, which is often heavily plant-based and always harshly cooked, is not equal in quality to the protein in canned food, which is (in most instances) meat-based and more gently cooked. The protein in dry food, therefore, earns a lower biological value score. Because plant proteins are cheaper than meat proteins, pet food companies will have a higher profit margin when using corn, wheat, soy, rice, etc. Most canned foods, when figured on a dry matter basis (not by using the values on the can or bag which are wet weight values), contain more protein than dry food. But remember, the protein *amount* does not tell the whole story. It is the protein's biological value that is critical.

We Are Feeding Cats Too Many Carbohydrates

In their natural setting, cats would never consume the high level of carbohydrates (grains/potatoes/peas, etc.) that are in the dry foods (and some canned foods) that we routinely feed them. In the wild, your cat's normal prey (rodents, birds, lizards, etc.) provides a high protein, high-moisture, meat-based diet, with a moderate level of fat and with less than 2 percent of her diet consisting of calories from carbohydrates.

The average dry food contains 35-50 percent carbohydrate calories (think **profit margin) which can severely alter the sugar/insulin balance in some cats. (See *Diabetes* at catinfo.org.)**

A high quality canned food, on the other hand, contains approximately 3-5 percent carbohydrate calories. Please note that not all canned foods are suitably low in carbohydrates since they can also contain high levels of grains, potatoes, and peas. (See the *Protein/Fat/Carb Chart* linked in the sidebar at catinfo.org.) Cats have no dietary need for carbohydrates and, more worrisome is the fact that a diet that is high in carbohydrates can be detrimental to their

health. You would never feed an herbivore (horse, cow, etc.) a diet of meat, so why feed a carnivore meat-flavored cereals?

Think 'fresh'!

Many of us have heard nutritionists recommend that we 'shop the perimeter' of the grocery store since that is where fresh, unprocessed foods (fruits, vegetables, meat, etc.) are found. Needless to say, dry pet food is very highly processed (e.g., cooked at a high temperature for a long time) and would certainly not be found anywhere near the perimeter of the store. Why do we feed dry food to cats? The answers are simple. Grains are cheap. Dry food is convenient. Affordability and convenience sells.

Do many cats survive on **water-depleted, high-carb, plant-based, harshly-cooked, bacteria-laden** dry kibble? Yes, many do. However I choose to feed a diet to my cats and my patients that will promote *optimal health* - not just survival. There is a significant difference between **thriving** and **surviving**. '*We are what we eat*' is not just a useless cliché. As noted above, diet is the foundation for optimal health of any living being - including our four-legged friends. If you would like to read more about optimal feline nutrition, please visit catinfo.org where you will find this article in its entirety, as well as other writings on feline care including litter box issues and preparing a balanced homemade diet.

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