

Chapter 1 – Early Lessons in Proper Feeding From Pottenger’s Cats

The findings from a ten-year feeding study of cats conducted a little over 70 years ago by a doctor in California reveal that feeding cats raw food had a dramatic and positive impact on their health and well-being when compared to cats fed cooked meat. Between 1932 and 1942, Francis M. Pottenger, Jr., M.D. researched the use of adrenal hormones in respiratory complaints such as asthma. Because cats cannot live without their adrenal glands they were used as laboratory animals to standardize the extracts. Pottenger maintained his cats on what was considered to be a high quality, nutritionally complete feline diet. The cats were fed *cooked* meat scraps (consisting of liver, tripe, sweetbreads, brains, heart and muscle) from a local sanatorium, raw milk and cod liver oil. Commercial cat food did not appear on the markets until the 1960’s. In Pottenger’s time, domestic cats either hunted for their food or were fed table scraps.¹

Compared to the stainless steel cages laboratory cats live in today, Pottenger’s cats dwelt in agreeable quarters. They lived in large outdoor pens overlooking the San Gabriel Valley. The outdoor area was covered with chicken wire for adequate sun exposure. They had a trench filled with clean sand for a litter box. The back of the pens was sheltered and contained a wooden floor and bedding. Caretakers removed the cats’ uneaten meat and bones and cleaned and refilled the water containers daily.²

Even though they received such good care, Pottenger could not understand why the cats were such poor operative risks. Many died in surgery or recovered slowly.³

When the cats donated to Pottenger’s study outnumbered the food available from the sanatorium, Pottenger placed an order at a local meat packing plant for *raw* meat scraps, again including the viscera, muscle and bone.⁴



Pottenger fed the raw meat scraps (including raw milk and cod liver oil) to a segregated group of cats, keeping the remainder of his cats on the cooked meat diet. Within a few months the differences between the cats fed raw meat and those fed cooked meat became evident. The raw meat fed cats and kittens were more vigorous and survived surgery better than the cooked meat fed cats.⁵

The difference between the health of the two groups of cats prompted Pottenger to conduct a ten year study involving over 900 cats including at least four generations to discover why cats fed raw food were healthier than those fed cooked food. The cats in Pottenger's study were used to study the effects of heat-processed food to benefit human nutrition. The latest and most rigorous scientific standards were applied for these experiments with their protocol consistently observed. Each cat's clinical chart included notes for its entire life. At the end of ten years, 600 of 900 the cats studied had complete, recorded health histories.⁶

The raw meat fed cats were uniform in size and skeletal development from generation to generation. Over their life spans, they were resistant to infections, fleas and various other parasites and had no signs of allergies. In general, they were gregarious, friendly and predictable in their behavior patterns. They reproduced one homogeneous generation after another with the average weight of the kittens at birth being 119 grams (4.20 ounces). Miscarriages were rare and litters averaged five kittens with the mother cat nursing her young without difficulty.⁷

The cats fed the cooked meat diet reproduced a heterogeneous strain of offspring, each kitten in a litter different in size and skeletal pattern. Health problems ranged from allergies to infections of the kidney, liver, bones and reproductive organs. By the time the third deficient generation was born, the cats were so "physiologically bankrupt" that none survived beyond sixth months, thus terminating the strain.⁸

Cooked meat fed cats showed much more irritability. Some females were dangerous to handle. The males, on the other hand, were docile, often unassertive and lacked sex drive or were perverted.⁹

Pregnant females aborted, about 25 percent in the first deficient generation to about 70 percent in the second generation. Deliveries were generally difficult with many females dying in labor. Kittens' mortality rate was also high because they were either stillborn or too frail to nurse.¹⁰

Many females had pregnancy and infertility problems. The average weight of the kittens born of cooked meat fed mothers was 100 grams (3.4 ounces), 19 grams less than the raw meat nurtured kittens.¹¹

Raw-meat fed males of proven virility were used for breeding, therefore, the experimental results primarily reflected the condition of the mother cat.¹²

Most deficient cats died from infections of the kidneys, lungs and bones.¹³ If modern-day antibiotics had been applied, these infections would possibly have been eliminated as a cause of death. The use of antibiotics to treat infections would have allowed the cats to reveal their ultimate degenerative fates.

Many of the deficiencies experienced by the cats fed the cooked meat diet were due to inadequate taurine. Cooking meat makes taurine less available to cats. Pottenger's study demonstrates that cats thrived and reproduced for years on a very simple raw food diet.

With the advent of commercial cat food, scientists employed by pet food manufacturers conducted feed trials to determine the minimum daily requirements for the domestic cat. Laboratory cats, kept in small stainless steel cages, are fed a purified diet with different nutrients withheld until a deficiency emerges. With the Pottenger Cat Study records available, pet food manufacturers did not need to conduct their own feed trials. Pottenger's raw meat fed cats survived for years without the need for veterinary care. Why would there be a need to feed a cat any differently? Where did the public lose its way in feeding cats?

Chapter 2 - Why Feed Raw?

Let us take a closer look at commercial cat food.

The Relationship Between Chronic Disease and Commercial Cat Food

Many chronic diseases in cats can be directly associated with the now common practice of feeding commercial dry food to cats. These include dental disease, inflammatory bowel disease (IBD), feline urinary tract disorder, kidney disease, diabetes and probably even cancer. The correlation between the ingredients in commercial cat food and these diseases is too close to ignore.

“When the Earth is sick, the animals will begin to disappear, when that happens, the Warriors of the Rainbow will come to save them.”
-- Chief Seattle

Take diabetes as an example. Male neutered cats older than six years old are most commonly diagnosed with diabetes and it is usually type 2. Obesity increases the risk for type 2 diabetes in cats fourfold.¹⁴

Type 2 diabetes is one of the most common feline endocrinopathies affecting 1 in 300 cats¹⁵. In her paper on feline diabetes, Dr. Deborah Greco states that, as with humans, the best approach to treatment of cats with Type 2 diabetes is diet and exercise.¹⁶ She suggests one way of increasing a diabetic cat's activity is to hide meals in various places throughout the house. I vote for letting a couple of mice loose in the house and letting the cat chase them.

The cat as an obligate carnivore is unique in its insulin response to dietary carbohydrates, protein and fat. Amino acids, rather than glucose, signal insulin release in cats.¹⁷ Normal cats maintain essential glucose requirements from amino acids rather than from dietary carbohydrates.¹⁸ As a result, cats can maintain normal blood glucose concentrations even when deprived of food for over 72 hours. *The cat is uniquely adapted to a carnivorous diet (mice) and is not metabolically adapted to ingestion of excess carbohydrate.*¹⁹

Most commercial cat food is extremely high in carbohydrates, thereby predisposing cats to obesity and diabetes.

Many cats with IBD enjoy a complete reversal of symptoms when they are taken entirely off commercial food and fed a diet similar to the one in this book.

A 1995 study conducted by the National Companion Animal Study concluded that oral disease was the most common feline ailment.²⁰ Could this be due to the commercial food they consume? In his book, *Variations and Diseases of the Teeth of Animals*, Colyer examined 1,157 wild canid skulls and reported the periodontal diseases as suggested by alveolar bone destruction was present in only 2 percent of the specimens.²¹

Typical dry dog and cat foods contribute little dental cleansing. As a tooth penetrates a kibble or treat the initial contact causes the food to shatter and crumble with contact only at the coronal tip of the tooth surface.²² The general belief that dry foods provide significant oral cleansing should be regarded with skepticism. A moist food may perform similarly to a typical dry food in affecting plaque, stain and calculus accumulation.²³

The stimulus for thirst appears to be less sensitive in cats than in dogs. Cats are able to survive on less water than dogs and may ignore minor levels of dehydration. Cats compensate for reduced water intake, in part, by forming highly concentrated urine which predisposes them to feline lower urinary tract disease (FLUTD).²⁴ Consumption of dry food increases the risk for lower urinary tract disease in cats.²⁵ This makes complete sense. Cats evolved as desert creatures – if need be, they could remain hydrated solely from their food source. A mouse is 65-75 percent moisture. Dry food is less than 10 percent moisture; a cat needs to drink a considerable amount of water to remain hydrated. Some cats do not care to drink water so they remain in a constant state of dehydration. Dry food is often left constantly available to cats. Increased frequency of feeding is associated with an increased risk of urinary tract disease, regardless of food. Obese and inactive cats are at increased risk as well.²⁶

“Speak the truth in a million voices. It is silence that kills.”
– Catherine of Sienna

I have lost track of how many different formulas Iams and Science Diet are marketing these days. I know both companies are deeply entrenched in the prescription diet market. Prescription foods are for cats and dogs that get sick while eating the regular formulas. You can no longer count on one type of cat food take your cat through all stages of her life. You

can start with kitten food, then once your kitten reaches a magical age and becomes an adult you can switch to adult food. Perhaps you will feed adult food for a few years, then you may need to switch to an obesity formula (if your cat gets too fat on the adult formula), a dental diet (if your cat develops dental problems while on the adult cat food), a sensitive formula (if your cat develops skin or stomach problems while eating the adult cat food), one of the many different lower urinary tract formulas (if



your cat develops feline urologic syndrome [FUS], oxalate crystals or struvite crystals), a heart formula (if your cat develops a heart condition) and so on. Where does it end – when your cat dies? Then it starts over with the next kitten. It is a terribly vicious cycle.

Commercial cat food, especially dry cat food, is not healthy for most cats. If it were, why would so many different formulas be necessary? If their food was truly 100 percent nutritionally balanced and complete, would there be such a need for all the prescription foods? In all the years I have been feeding raw to my cats, I have not had to change

the formulation of the diet I feed them to address an illness.

Dry food in particular is unhealthy for cats, no matter what formula, shape, texture, packaging or how clever the marketing. The two major problems with dry food is the lack of moisture and the excessive carbohydrate content. Dry food is cooked and processed to death. Dry food bears as little resemblance to meat as potato chips do to potatoes. At least most potato chips contain *potatoes*. It is hard to find a dry cat food that contains just *chicken*, you have chicken, chicken meal, chicken by-product, poultry by-product, chicken flavor and chicken digest. Would you buy potato chips that listed potato by-product or potato digest as an ingredient?

Canned food is usually not much better than dry in ingredient quality, but at least it contains sufficient water. Canned cat foods generally have moisture contents above 60 percent moisture. That is a great benefit for your cat! Cats should be getting their moisture from their food. Dry food is more economical than canned food and of course easier to feed.

I believe all commercial cat food is inferior to a raw diet like the one detailed in this book, but if you cannot take the time to feed raw, then feed a canned food that contains human grade *meat* (not by-product) and contains minimal, if any grains. There are such foods available.

You will see throughout this book the cat is referred to as an “obligate carnivore.” The cat is a member of order *Carnivora*. Cats and other members of the superfamily *Feloidea* are considered obligate carnivores as they have strict requirements for certain nutrients that can only be found in animal tissues. Cats cannot synthesize taurine or arginine, amino acids found only in meat. They lack the ability to convert linoleic acid (contain in plants) to arachidonic acid (contained in animal fat). They cannot convert beta-carotene to vitamin A. Cats cannot decrease activity of hepatic enzymes when fed low-protein foods – they must consume a high protein diet. Cats must eat meat to survive.

I cannot believe anyone can really look at these different cat foods and feel confident feeding them. What is the right formula? protein? grain? shape? I know many breeders who mix several different types of dry food together because they do not trust just one brand fed alone to be nutritionally complete. That causes problems itself because if a cat develops intolerance to one brand (and they do that regularly), you do not know which brand it is because you are feeding several different brands.

It makes so much more sense to prepare a balanced raw meat diet and feed that to your cats. It is what a cat, an animal that is an obligate carnivore, is supposed to eat. It should be fed to them raw. No animal cooks its food in the wild. It should be fed in as close to its natural state as possible. It should contain ingredients as high quality as the caregiver can afford. It should be fresh. It should be served with love and respect for the animal you are feeding.

“This is the miracle that happens every time to those who really love; the more they give, the more they possess.”
-- Rainer Maria Rilke

Chapter 3 – Understanding the Basics of Feeding a Carnivore

The diet portion of this book presents a detailed explanation of how to prepare a homemade diet consisting of raw meat and supplements. For purposes of this book, the term “recipe” shall mean approximately 1,000 grams of meat, bone and organ meat, water, egg yolks and supplements. The recipe is very similar in ingredients and proportions as the one presented in Feline Future’s *The Backyard Predator*.²⁷ Feline Future did a wonderful job constructing a raw diet using minimal species-appropriate ingredients.

I believe you should know *why* a particular ingredient is in the recipe before you know how much. Therefore, the recipes are included at the end of the diet section.

AAFCO and Animal Testing

Minimum nutritional requirements for cats have been compiled by the Association of American Feed Control Officials (AAFCO) and various other entities. These data were compiled under laboratory or other artificial conditions. I do not condone the use of cats or any other animal as laboratory subjects. I believe that in many instances, the testing done on dogs and cats by the pet food industry is as bad as the testing done by the medical and cosmetic industries. Keep in mind if you are feeding commercial food – that some poor cat may have suffered through some terrible experiment conducted by the manufacturer. Poor quality aside, that is reason enough in my mind *not* to feed commercial cat food. No cats suffered during the creation and testing of this diet.

I do not believe these laboratory tests take into account the true nature of the cat as a predator and obligate carnivore. What is necessary to keep a cat alive in a stainless steel laboratory cage is of no interest to me. What keeps cats *healthy* under conditions similar to how they would live naturally is the true indicator. I discovered early on that keeping neutered and spayed cats healthy using a raw diet was quite easy. It is a true art to keep breeding and show cats healthy on a raw diet. What keeps a pregnant cat and ultimately her kittens healthy and in good condition is a diet that is truly nutritionally balanced and species-appropriate.

Pregnant cats, kittens, adults and older cats all eat essentially the same food in the wild. There are no sensitive stomach or hairball reduction

mice – they are not necessary. The prey a wild cat catches and eats is perfect nutrition for all stages of life. No modification is needed except for frequency in eating. My pregnant cats, weaning kittens and senior cats all eat exactly the same food. They always have.

I have been feeding a raw meat diet to my cats since 1993. I am glad I discovered raw feeding by accident instead of how so many people do now, when their cats are so sick they are drawn to a raw diet in a last ditch attempt to heal their cat. Please, once you realize the potential dangers associated with feeding a commercial diet, do not feel guilty!

***“Learn to trust your own judgment, learn inner independence, learn to trust that time will sort good from bad – including your own bad.”
— Doris Lessing***

I purchased *The New Natural Cat* by Anitra Frazier to fulfill a Book of the Month Club membership. I had no interest in natural cat care at the time. After I read the chapter on diet, I realized I was doing my cats a lot of harm in "free-feeding" (leaving food out for them to graze on all day) commercial dry food. I immediately took away the dry food and purchased a natural canned food and the supplements recommended in the book. It took a day and a half for Rooney to adapt to the new diet. Pumpkin refused to touch it. It took me almost five months to get Pumpkin to accept her new diet. Pumpkin's refusal to eat that led me to explore homeopathy. Homeopathy is a form of medicine developed by a doctor in Germany in the late 1700s.

Rooney began to show the effects of the new diet while I was trying to convince Pumpkin that I was not trying to poison her. Rooney had become a bit chubby while eating dry food. The excess fat dropped off and was replaced with muscle. His coat took on a wonderful shine and I began to notice less shedding, an increase in activity level and less litter box odor. I took a further step and started feeding a completely homemade diet consisting of human-grade raw meat, cooked grains and vegetables, raw garlic, parsley and carrots, a vitamin/mineral supplement and oils.

Since 1993, my clan has grown considerably and Blakkatz Cattery was born. I have streamlined my production of the diet so it takes very little time. I continue to see excellent benefits from feeding a homemade diet.

Initially I used a diet developed by Dr. Jeffrey Levy, a homeopathic veterinarian living in Williamsburg, Massachusetts.²⁸ This was an extremely complex diet with a lot of ingredients. As I learned more about a natural feline diet, my diet evolved to what it is today.

"The time you spend preparing your cat's meals, the personal energy you put into it, is a gift of great value and a true measure of your love"
— Dr. Jeffrey Levy, D.V.M.

Other Raw Diets

At one time I was worried about my diet changing - was I ever feeding the wrong food or an unbalanced diet to my cats? Dr. Levy's diet, Anitra Frazier's diet (*The New Natural Cat*) and Dr. Pitcairn's diets are all far better than feeding a commercial diet. The problem with all of these diets is that they are not taking into account what you are feeding – a small cat. The cat evolved as an obligate carnivore. All of the above diets include ingredients like grains, vegetables, garlic, yeast, vitamin C, and alfalfa. While these additions may be good for humans, they are not necessarily good for cats and may be harmful. There are still many raw diets available on the Internet and in natural cat care books that recommend garlic, vegetables, vitamin C and so forth. I do not think they are necessary or desirable. I do not feed these ingredients to my cats.



For example, a cat's natural diet has little or no vitamin C. Meat has little or no vitamin C. Cats can manufacture their own vitamin C. If vitamin C is not abundant in their natural prey, why should it be added to a homemade diet? The same argument can be applied to garlic. As far as I know even the mice in Italy are garlic-free. Why add garlic to your cat food -- because it is supposed to be a natural antibiotic or flea deterrent? Even if that were so, a healthy cat will not need antibiotics of any kind and should not become infested with fleas. It just does not make sense. More importantly, cats usually do not like the taste of garlic. Why add something to their food if they do not like it?

New Age ingredients like garlic, aloe, yucca and chicory are showing up in commercial cat foods to make the cat food appear healthy and natural to the consumer. Long-term use of ingredients such as garlic may be detrimental to a cat. Garlic or any member of the onion family can cause a cat's red blood cells to malfunction and which in turn causes a condition known as Heinz Body Anemia. Garlic is listed as a poison to cats and to some extent, dogs on the ASPCA poison control web site.²⁹

Addition of vitamin C, tomato, cranberries, or other acidic ingredients is not necessary. A cat eating a natural diet of rat carcasses maintains an average urinary pH of 6.3.³⁰ It does not take any more than that – feed a cat a species-appropriate diet and all is well.