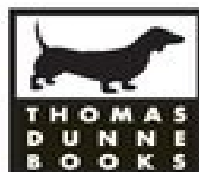



YOUR CAT

SIMPLE NEW SECRETS
TO A LONGER, STRONGER LIFE

ELIZABETH M. HODGKINS



YOUR CAT



Simple New Secrets
to a Longer, Stronger Life

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This book is dedicated to Punkin, my much loved diabetic kitty whose suffering and recovery started ~~this book over a decade ago. Without this wonderful cat in my life, I might never have begun to ask~~ the questions that finally revealed the important truths I now hold. It is also dedicated to my wonderful son Matt who insisted we adopt Punkin from his hopeless, homeless life at a campground in Kansas. Matt's act of compassion for a defenseless kitten made all the difference.

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FOREWORD

Today, cats outnumber dogs as the most popular pet in our modern society. At the same time, Americans will spend 62 percent more time on the planet, due to increases in life expectancy compared to earlier times. City dwellers and aging baby boomers, growing families, and those who live alone can all have the joys and companionship of cats because they are quiet, easy to care for, and adapt to virtually all types of living quarters. Cats are now often accepted even in senior citizen accommodations.

In the recent past, society has discovered, documented, and increasingly recognized the human-animal bond as a necessary part of healthy human interactions. This unique bond has healing power and health benefits directly related to the companionship, pleasure, sport, recreation, and services provided to humankind by companion animals. Pets provide people in diverse life situations with opportunities for nurturing and feeling connected and loved.

While the attachment between women and felines is well known, the man-cat bond is also out in the open now. Men of all ages have always loved their cats, but in the past, this particular relationship was overshadowed by the relationships men seemed to share with dogs. In today's society, men can openly profess without embarrassment their interest and love for cats. In fact, in my work to advance the human-animal bond, I've coined this particularly deep relationship the "CAT-MAN-DO" bond.

Philosophically, we owe our feline friends and ourselves the favor of reading this book from cover to cover. Within its pages, Dr. Elizabeth Hodgkins opens up her treasure chest of firsthand and scientific knowledge as a veterinarian, cat breeder, nutritionist, immunologist, and internist giving many precious pearls of wisdom to cat lovers. As head of legal and claims division in the pet health insurance industry for a part of her professional career, Dr. Hodgkins was privy to the actuarial data on illness and death in the nation's private pet population. She saw the disease trends that twenty years of modern data collection accumulated.

With the clarity and the skill of an excellent courtroom attorney, Dr. Hodgkins provides the scientific rationale for her viewpoints on feline health, nutrition, behavior, vaccines, illness, and longevity. Her illuminations make sense and shed light in the gray zone of established habits and accepted tradition which all of us have accepted as "the way" for the past twenty to forty years. Dr. Hodgkins's discussions are provocative and disturbing, and the problems they identify will not be easy to rectify quickly. Nonetheless, they are long overdue.

Dr. Hodgkins's understandable book is intended to educate caregivers and spare pet felines from preventable illness. If cat lovers become informed and follow Dr. Hodgkins's proposed feeding and management guidelines, they will bypass the heart break and expense of many common illnesses including cancer, seen in today's typical household cats. Caregivers may also enjoy extra years of companionship with their feline friends as they attain a longer life span.

Dr. Hodgkins writes on behalf of cats on a global basis. In her exclusively feline practice, she has observed, diagnosed, and treated a set of basic feline diseases (inflammatory bowel disease, skin disease, diabetes, hyperthyroidism, feline triad disease, fatty liver, cancer). These feline diseases routinely fester in the backdrop of chronic illness related to obesity, malnutrition, and management issues. She truly hopes that feline fanciers everywhere will be motivated to change what is accepted as the status quo of convenience feeding with dry food and over vaccination. Anyone who loves cats will want to improve the management and feeding of their feline best friends along the parameters of Dr. Hodgkins's insightful, scholarly, and practical suggestions. What better time than now for all mankind

to refresh and recommit to its stewardship role for all the animals in the environment. As ethical animal caretakers, we must strive to do what is best, and correct what is not best.

Today, my husband and I live with two beautiful Ocicats reared by Dr. Hodgkins. They enrich our lives every day with their beauty, intelligence, and willingness to forgive our human failing. Following the advice in this book, we know we will continue to enjoy them to the fullest for decades to come.

—ALICE VILLALOBOS, D.V.M.
American Association of Human-Animal Bond
Veterinarians President, 2005-2006
Animal Oncology Consultation Service
Woodland Hills, Torrance, California, and
Pawspice Care Clinic, Norwalk, California

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In any project as ambitious as a book, there are always many individuals whose contributions have been as invaluable as the author's to the success of the effort. This book is no different. I must first thank my husband, Richard, who was the first to suggest that I stop muttering under my breath and put my experiences down on paper. His support and encouragement made completion of this "labor of love" possible. I must also acknowledge all of the many others, such as Dr. Lisa Pierson, Lynette Ackman, Anne Jablonski, Shelby Gomas, Doug Cohn, Kristi Martin, and the many other knowledgeable individuals who have assisted and encouraged me. They are as committed as I am to making life better for cats everywhere by raising the awareness of pet owners about the mistakes we are making in caring for our beloved felines. Their collaboration and support was indispensable. My deep gratitude goes to Punkin, my first diabetic cat, who gave me the opportunity to learn so many important things about the harm we have done to our cats over the past several decades. Finally, a very sincere thank you to Marcia Markland, Diana Szu, and everyone at Thomas Dunne Books and Scribner's Press who believed in this project and helped to make it happen.

PREFACE

As anyone who has ever been around a cat for any length of time well knows, cats have enormous patience with the limitations of the human mind.

—CLEVELAND AMORY

Today, the cat is *the* favorite house pet in the United States, outnumbering the dog, the previous favorite, for a decade or more. Sources estimate there are between 60 and 70 million “kept” cats living in about 35 million homes in this country at the present time, and this growth trend shows absolute no signs of slowing or reversing itself anytime soon. Veterinarians are seeing unprecedented numbers of well-cared-for felines, belonging to individuals and families that are intensely attached to their kitty family members. Men as well as women, in all walks of life, are bonded with their pet cats in a way that I could never have anticipated in 1977 when I graduated from veterinary school. In short, the cat has become not only legitimate as a pet underfoot in our home, but also as a focus of attachment and affection for humans who are often willing to do anything and everything necessary to provide their felines with long, healthy, and happy lives.

This desire to care for a pet cat’s every need has resulted in some significant improvements in health and longevity for today’s felines. For example, the increasingly common indoor existence cats now enjoy has reduced the incidence of most infectious diseases within cat populations, and has curtailed death and injury to cats from automobile accidents, attacks from dogs or wildlife, or other sources of trauma. More routine spaying and neutering of household pet cats has positively affected the number of abandoned and neglected cats put to sleep in shelters.

Unfortunately, while so much is better for cats today, they have paid a high price for the heightened level of care they receive from the millions of devoted cat owners in this country. That price is loss of health associated with such harmful influences as poor nutrition in the form of commercial dry cat food diets, potentially excessive vaccination practices, and a general failure to understand the cat’s unique needs and behavior as distinctive from those of any other pet species.

Virtually all of the major lethal diseases of cats—obesity, diabetes, bladder problems including inflammatory cystitis, kidney failure, hyperthyroidism, inflammatory bowel disease, and even some forms of cancer—are directly related to mistakes loving humans make in caring for their feline. Decades ago, cats were not pets; they were workers around the property, in charge of controlling the vermin population in a ranch, farm, or neighborhood setting. We humans provided certain protection to the local cats, in exchange for the service of ridding our homes and towns of disease-carrying and grain-consuming rodents. In this particular symbiotic relationship, it was not necessary, and not even particularly desirable, that the cat become a true pet. Because its work required that it retain all of its keen, wild hunting instincts and hunger, the cat was left outdoors, seldom fed from the family’s table, and generally encouraged to remain feral in all aspects. To be of service to humans, it was necessary

that the cat remain just as it had been before its relationship with humankind began.

Contrast this with the domestication of the dog by humans in earliest times. In that relationship, the services the family dog provided included safeguarding the family and home, herding livestock under the direction of the master, and assisting humans in the hunt for game that would be food for the householder and other members of the community. These kinds of services required a very close working relationship between man and dog, with a substantial alteration of the dog's temperament, anatomy, and even dietary needs. To work together constructively with humans, the wild, primitive dog needed to change to match its master's household environment. Thus, differences in dogs and cats that already existed when both species were essentially undomesticated became even more pronounced once the process of integrating these animals into human civilization was underway.

Because it ate from the master's table, the dog became an increasingly successful omnivore, like its master. This adaptation was accelerated by selective breeding practices. Thriving on a wide variety of animal and vegetable source dietary substances, the dog retained and expanded its nutritional flexibility. The cat living with humans was not influenced in this way. A true carnivore from the outset, it did not experience any evolutionary pressures, or breeding selection, from humans or its environment to become more omnivorous. Indeed, had the cat acquired a taste for grain or other vegetable crops as the dog began to do, the species might well have been driven from the presence of humans altogether. The cat's sole value in its relationship with people was to eliminate the creature that robbed the community of its harvest and, in the process, assist in the management of vermin that facilitated disease, such as the black plague.

It is true that in a few ancient societies, the cat was revered, even deified, as in the Egypt of approximately 2000 BC. Some historians even suggest that the cat was domesticated at this time, but it is entirely unclear how far this process of integration of cats into human life actually progressed and whether there would have been any useful reason to try to modify the felines' natural behaviors or nutritional predilections. There certainly is no historical evidence that deification altered in any way the cat's basic nature and metabolism during this period.

Some evidence from the ancient Middle East shows cats seeming to live in the homes of the Egyptians and even to assist in the hunting and killing of small game and fish. Tombs of cats from the Egypt of four thousand years ago, however, show such funerary offerings as milk, dead rodents, and other animal-source nutrition were provided to accompany the mummified felines into the afterlife. Those entombments lacked the much wider assortment of food types provided to mummified humans, suggesting that the Egyptians understood the natural inclinations of the cat.

Cats kept by the Egyptians, like the house cats of today, probably had relatively docile temperaments compared with those of feral cats of the past or present time. This shift in personality was, and still is, largely a matter of socialization (taming via deliberate training), or a natural selection process called neotenization, rather than true domestication as occurred with dogs, cattle, and the like. A socialized house cat that is released outside the home to shift for itself will revert to its genuinely wild, self-sufficient set of behaviors in a short period of time. Conversely, kittens from feral colonies, and even some adult ferals, adapt very well to life in close contact with humans, with adequate careful socializing.

The cat's unique, primitive metabolic and nutritional needs have not been changed through the simple process of socialization. The workings of the cat's mind and body remain intensely prehistorically molded through thousands of years of selective environmental pressures into the perfect carnivore, the top predator of its environment. Nothing that humankind has done to harness the useful qualities of this predatory mammal has changed that in any way.

It is these special and ancient characteristics that distinguish the cat, past and present, from all other animals in our lives. In our failure to understand these characteristics as we bring the cat into our

homes and hearts, however, we have begun a process of unwitting harm. Today, we rush to live our lives at breakneck speed, placing trust in the tidal wave of consumer advertising that inundates us hourly from all corners. This misplaced trust has led us to inflict a poisonous lifestyle upon our felines, even as we believe that we are doing everything possible to keep them healthy and happy.

This book will change that. In the following pages, we will explore all of the major health problems of today's pet cat and come to understand how we humans are causing some of these problems; and how we, and only we, can make things right again.

PART 1

A Twenty-first-Century View of the Cat

1

The Predator Among Us



Most pet lovers are familiar with the idea that dogs and cats are carnivores. That is, both animals can and do derive valuable nutrition from the voluntary consumption of meat. In this regard, many mammals, including people, pigs, bears, raccoons, and myriad others have seemingly similar carnivorous tendencies. When meat is available, such animals will take advantage of the situation and eat it. There is a significant difference between cats and all of these other mammals, however. Dogs, people, pigs, bears, and raccoons, etc., are all omnivores that eat meat when it is available. Cats, big and small, are *obligatory* carnivores. The omnivore does not eat meat as a mandatory requirement for life; vegetable food sources can make up a very large part of their diet, and may even be properly balanced to provide all needed nutrients for health. For the cat, however, meat, and the nutrients found only in meat, are essential for survival.

The Cat Is Not a Small Dog

Critical differences between dogs and cats, the most popular of all household pet animals, are clearly illustrated in the genetic, anatomic, and metabolic differences between the two. Scientists who have studied the dietary habits of carnivores, omnivores, and herbivores tell us that these “rungs” on the food-chain were established and reinforced during the evolutionary histories of each type of animal (see www.catinfo.org/zorans_article.pdf). The work of these experts suggests that the members of the superfamily *Feloidea*, including today’s cat, evolved rapidly in distant prehistoric times, but then stopped abruptly in that progression. Carnivorous animals belonging to other families of animals, including the *Canoidea*, to which the dog belongs, seem to have progressed beyond this point to meet changing evolutionary needs.

Good evidence for the cat’s relatively ancient nature can be found in the lower number of chromosomes in its genetic makeup, compared with a much larger number for the group that included

modern dogs. The cat's cells carry thirty-eight chromosomes, while the dog's cells carry seventy-eight. This does not mean that the cat lacks physical and genetic sophistication equal to the dog. It means that it made a perfect and permanent fit within its spot in the environment early on and experienced little additional pressure to change its genes.

Dogs and cats also have remarkably different, but highly specialized, anatomy. Dogs have forty-two permanent teeth, whereas cats have only thirty. Dogs have more molars than do cats, with a specialized shape for crushing, associated with their intake of plant material. In contrast, the shape of feline teeth is specialized for grasping and tearing flesh. By its structure, the cat's jaw has far more restricted side-to-side and front-to-back mobility than does the dog's, limiting its ability to grind varied vegetation-containing diet as the dog can do. The cat's eyes and ears are positioned forward on the head to provide exquisite acuity of vision and hearing when tracking prey, particularly at night. Retractable claws, seen on cats but not dogs, are another specialized feature of an animal that must chase, catch, and bring down all of its food in the form of wild prey.

The gastrointestinal tracts of the two species are also quite different. Those differences emphasize the differences in the natural diets of each. Science tells us that modifications in the basic structure of this important organ system from species to species are closely connected to diet. The cat's stomach, caecum (appendix), and colon, segments of the gastrointestinal tract most associated with digestion of vegetable matter, are smaller than those segments in the dog. The length of the feline intestine as a proportion to its body length is short compared with that of the dog, indicating that the cat's evolutionary diet was highly digestible (protein and fat), whereas the dog consumes far more vegetable matter. The inner lining of the cat's stomach has significantly greater surface area than does the same part of the dog's stomach. Anatomists believe that increases in the relative size of the stomach area are an adaptation to the digestion of higher-meat, more calorie-dense diets. The caecum in the cat is very primitive, whereas it is much better developed in the dog. Once again, this portion of the gastrointestinal tract assists in the processing of fibrous, nonmeat dietary constituents.

Equally telling of the cat's strictly carnivorous origins are its nutrient requirements, especially its requirements for protein. Research done in the 1970s and '80s showed conclusively that protein requirements in kittens and cats far exceed those of puppies or dogs. The cat, unlike omnivores such as the dog, "burns" protein to make energy for its everyday use, under all circumstances. Most other animals burn large amounts of protein for energy only when protein is plentiful in the diet.

In contrast, the cat has an ongoing high requirement for protein to turn into energy, even when dietary protein intake is very limited. During starvation or excessive protein-restriction, the cat is forced to disassemble its body's own constituent proteins (enzymes, antibodies, organ tissues, and so on) to produce fuel for energy to keep the cells alive and functioning. Thus, in the most fundamental way, the health and tissue integrity of the cat is dependent upon the continual intake of highly digestible protein, especially protein from meat.

Another of the cat's claims to the top-predator spot in the food chain is the absolute requirement for an essential fatty acid, arachidonic acid, found only in meat. Also, cats must consume preformed vitamin A from animal-source foods because they are unable to make this essential vitamin from the beta carotene found in plants. The list of the specializations of the cat's internal machinery that reflect its evolutionary adaptations to a life as an obligatory carnivore goes on and on.

Not All Livers Are Alike

By far, the most fascinating characteristic of the cat compared to omnivores like the dog is the manner

in which its liver functions. The cat's very high protein and amino acid requirements arise from the constantly high activity of certain enzymes in the feline liver. These enzymes disassemble the amino acids in protein to make them available for production of energy in a process called *gluconeogenesis*. Essentially, the liver is the organ that is responsible for the high and constant burn rate of protein in the cat's body. Omnivores such as the dog have a liver that is also capable of this function, but omnivores turn the rate of this function up or down depending on how much dietary protein is available. In contrast, the cat's liver protein "burn rate" is set high at all times, even when dietary protein is scarce or entirely absent. Death from protein starvation can be very rapid in this species.

In the liver, protein amino acids are processed into glucose (sugar) and sent into the bloodstream to supply the body's need for this energy nutrient. In a meat-eating species like the cat, accustomed to little dietary carbohydrate in its evolutionary environment, the liver will manufacture the great majority of the animal's needed glucose, which is the primary energy supply for the animal's brain. Because there is little glucose in a high-meat diet, this is an essential task for an obligatory carnivore. The liver of omnivores, including people and dogs, have multiple enzyme systems for handling dietary carbohydrate; the cat has only one such enzyme system, with limited capacity to deal with high carbohydrate consumption.

Such specializations make the cat fit its niche perfectly; indeed, the fittest animal in a niche will be the one with the fewest and simplest systems to meet its survival needs. The cat's ancestors did not need the ability to turn their liver's protein burn rate up and down. Similarly, they did not require significant carbohydrate-handling capabilities. The specialized glucose-from-protein systems that have been genetically retained by the modern cat are always active at a high rate, obligating felines to eat more protein than their omnivorous counterparts. Because of this, unfortunately, the cat will suffer far more harm than will omnivores in situations where protein is insufficient or absent. We will see how important this requirement is when we discuss many of the common diseases of our pet cats.

[Out of Africa](#)

The present-day house cat (*Felis domesticus*) is generally thought to have descended thousands of years ago from a small wild cat (*Felis lybica*) native to the deserts of North Africa. Such a dry climate heritage would explain many distinct characteristics of this species. Cats are capable of surviving for long periods without water, and will naturally consume very little free water when they are feeding on canned cat food or fresh meat. Cats can produce urine that is highly concentrated compared to that of the dog and other animals that evolved in more water-rich environments. The cat's natural tendency to produce urine with a great deal of metabolic waste in a highly concentrated form can be dangerous if the cat feeds on a diet that is low in water, because this desert animal has a naturally low thirst drive. The cat that is consuming dry cat food seldom drinks enough additional free water to balance the dry state of the food. This results in especially concentrated urine with attendant medical problems, including certain kinds of bladder disease. Dry food also contains ingredients that interfere with the natural acidity of the cat's urine. Highly concentrated, alkaline urine from dry food consumption is associated with serious, even fatal urinary tract problems.

[The Predator Lifestyle](#)

The cat's ancient predator-behaviors are very much a part of its present-day life. Some wild c

species live solitary lives, associating closely with other adults of their species only during mating season. The most familiar of such solitary wild cats is the mountain lion, or cougar (*Felis concolor*). Other species, such as the African lion (*Panthera leo*), live relatively sedentary lives in small groups of animals, hunting and caring for the young in a collective manner, with a very defined geographic territory that belongs to each group and which is protected by the group from outsiders that might take resources from that territory. Our pet cats are still very influenced by the primal behavioral instincts of their wild ancestors.

The domestic cat is like the lion in its social orientation. Despite the common belief that house cats are aloof and solitary, most naturally prefer to have companionship with a few members of their species. In such groups, which claim set territory with well understood boundaries, there is a clear pecking order, with the leader, or “alpha cat,” often a female, living communally with its associates that have decreasing amounts of influence within the group. As long as the range of this group is large enough for the group size, there is general harmony, with only minor dominance “debates” between the alpha and associates.

From time to time, however, there may be individuals that do not fit with the group as a whole. For reasons that are not often clear, a young adult may become a pariah, or outcast. Such pariahs are individuals that cannot find friendship with the other cats in the community; rather, they will be chased and sometimes attacked by even other low-level members of the group. In the wild setting, such cats would either leave the colony and seek other outcasts with which to start a new colony, or would live at the edge of the group, finding food and shelter as best they could without interacting with the others. Sometimes a youngster, often a male, will suddenly begin to demonstrate inappropriate and persistent dominance behaviors relative to others with high and low positions within the hierarchy. Dominant behaviors from a nonalpha cat are very disruptive of the welfare of the group, and such a cat would also be driven from the colony, unless it can win the battles with older, more established members of the group and take their place in the hierarchy.

Feral cat colonies typically have clusters of same-sex cats that associate most closely. Females of reproductive age spend time together, and naturally their young kittens stay close to this female grouping until some time after they are weaned. Young adult males associate with one another in a sort of “bachelor band,” but this group does not intermingle much with the females because one or a few older, more dominant males do the breeding that takes place within the colony. Dominant males live more solitary lives, except during the breeding season. Breeding males are highly competitive with one another, and each maintains a subterritory that is his own within the colony. Serious fights occur when a young male or another breeding male invades the well-marked subterritory of an established male. If there is insufficient space within the colony’s total territory to allow for each assertive male to have breeding space, someone has to leave. Assertive males that cannot successfully challenge the dominant breeding male will be driven from the group and will seek to establish their own new groups.

Understanding these natural group relationships and interactions, and the possibilities for disruption of those dynamics, has great importance for understanding the behavior of pet cats, especially when they are kept in groups indoors.

[Living with a Predator](#)

The lesson in taking time to understand the cat’s natural physiology and lifestyle is that altering that lifestyle will result in disease and behavioral disability. For all of their advanced intelligence, house

cats cannot adjust to highly unnatural living circumstances any better than their much larger wild cousins on the African savannahs or the rain forests of Asia could. *The domestic cat is not domestic.* is a small, essentially feral species that has made only modest accommodations to living intimately with humans.

I find the attraction some people feel for keeping wild species of felines as pets ironic. The seemingly less-exotic domestic cat is as wild in its mind, heart, and soul as the grand, fierce, big cat could ever be. Today, knowledgeable animal lovers understand that keeping a big cat requires great attention to such a cat's urgent needs for the right food, the right environment, and the right handling. We assume, however, that our house cats are so much different in their requirements for health and well-being. This is a mistaken belief.

True, our familiar house cat is not, generally speaking, a dangerous creature capable of killing or injuring us the way big cats are. Its size and deceptive amiability makes it a delightful and easy-to-keep pet. The differences between house cats and the lions, tigers, leopards, and innumerable other wild felines of movies and wildlife documentaries stop there, however. The predator that greets us at the door at the end of a busy workday, that shares our bed on a cold rainy night, and that slumbers with utter contentment on the top of our computer as we work in our office is an ancient, instinctive hunting machine. I believe that the dreams of our beloved feline pets are filled with the thrill of the chase after prey, the comfort of napping in the incandescent equatorial sun, and the smell of monsoon rains beating relentlessly down on the towering shelter of jungle canopy. This is the smallest, gentlest cat's heritage and the core of its physical and psychological being.

If we would keep our cats healthy and happy throughout their naturally long lives, we cannot forget this truth.

2

The Life of Today's Cats



The Indoor Life: Benefits and Risks

Decades ago, pet cats lived almost entirely outdoors. Their lives were not much different from those of their earliest feline ancestors. They hunted for much of their own food. Their humans occasionally provided scraps of food from the family table, but most cats were expected to fend for themselves. In fact, cats in those days were often kept not so much as pets, but as useful workers around the ranch or farm, or home. Cats were expected to control vermin, such as mice, rats, and gophers. This they did and did well, and not because they wanted to be helpful, but because they had to hunt to survive. Living outdoors, cats associated with other animals, including other cats, according to age-old hierarchical rules. There was generally plenty of space for outdoor cats to spread out, associate with their natural social groups, and avoid others at will.

This outdoor life could be very dangerous. Unprotected from larger predators and other sources of accidental trauma, cats living outdoors often died relatively young. This danger increased as automobile use increased. Nothing in a cat's evolution could have prepared it to deal with four thousand pounds of metal bearing down upon it at high speed. As farms, dairies, and ranches gave way to subdivisions in the 1960s and after, many pets died sudden violent deaths on streets and roads. As human and animal population density increased with urbanization, the cat also faced increased dangers from infectious disease. Epidemics of viral, bacterial, and parasitic diseases could decimate outdoor feline populations. Veterinary care for outdoor cats was relatively uncommon. Even spaying and neutering of pet cats was rare, and unwanted kittens appeared at astonishing rates. The unprotected youngsters were exposed in turn to all of these dangers.

The cat living on its own outside the house maintained an independent demeanor, and many owners believed that the cat was not really an affectionate, companionable part of the family. Many people believed the cat had a naturally unfriendly, human-avoiding personality. The cat of the mid-twentieth century would wait for decades to become the adored close member of the family that we know today.

During the 1980s and '90s, cultural changes in society had a profound effect on the lifestyle of the pet cat. The living space of the family, including the outdoor space, became smaller or disappeared

altogether. The pace of life for most people became much faster. Many households had two or more working adults, instead of one adult who stayed home. Homes were deserted during the day as members of the family left for work or school. People found it harder to keep dogs, especially large dogs, as pets, and looked increasingly to the cat as the animal companion of choice. The cat's small size and relatively self-sufficient nature became attractive to people who wanted an animal companion that could live closely with them without demanding constant attention and care.

In the past two decades, the cat has become the most popular pet in the United States. Today, most pet cats spend the majority or all of their lives indoors, where they are protected from many of the dangers of the outdoor life. Death and injury from accidents are far less common now that cats are protected within the home. Infectious diseases spread less quickly and widely because cats associate less with large numbers of strays and also because felines enjoy much better veterinary care today. Indoor pet cats are routinely spayed or neutered, and unwanted litters of kittens among this group are now a rarity.

All of this improved safety has come at a price, however. Now that indoor cats are dependent upon their human families for food and shelter and living arrangements, new problems have sprung up. Cats today are plagued with serious medical conditions, often at youthful ages, which seem new and associated with this new lifestyle. Obesity, diabetes mellitus, bladder and kidney problems, hyperthyroidism, and allergies are just a few of the more common of these problems. In addition, indoor felines experience a variety of behavioral problems, such as poor litter-box habits and aggression toward feline housemates, that perplex and frustrate their owners. Unfortunately, these problems can become so serious that a much-loved pet cat may die or be put to sleep because of them. This is especially sad because all of these seemingly new problems are the result of man-made influences on the cat through its new indoor lifestyle. All can be reduced or prevented through understanding of those unnatural influences and how to correct them.

Feline Nutrition: A Cat Is What It Eats

For more than two decades now, conscientious cat owners have been unwittingly treating their cats as though they were small dogs. This was an easy mistake. The cat followed the dog into favor as a “underfoot” pet in the home, thereby inheriting many of the pet-care habits owners had established already for their canine family members. Adding to the problem, veterinarians and major pet-care product companies entirely failed to recognize the implications of carnivore/omnivore distinctions. They encouraged and supported the cat's newfound status as a kept pet.

Most particularly, the foods that had been developed already for dogs in the second half of the twentieth century seemed easily adapted for the cat. Even though good research done decades earlier proved the very special nutritional needs and limitations of the cat compared to the dog, the companies that geared up to make cat foods did not understand how profound these differences really were. They believed that these differences could be addressed with minor changes to vitamin/mineral supplements added to the same basic dry canine diet. Pet nutrition scientists ignored the very different ways in which the cat processed and used energy nutrients (protein, fat, and carbohydrate) compared with the omnivorous dog. For a few years, this disregard seemed harmless.

Cats did not find most dog foods very palatable at first. Ingenious inventors devised additives for pet foods that would make them tasty for almost any cat, much as the breakfast cereal companies had done when they sugarcoated their products to make children clamor for them in the grocery store aisles. Cats came to accept these makeshift diets, and their convenience and short-term adequacy

“proven” in limited, six-month feeding trials seemed to satisfy owners and veterinarians. Everyone seemed happy with this new arrangement in which the carnivorous cat gobbled down the food originally designed for the omnivorous dog.

Slowly but surely, problems began to arise. Veterinarians began to recognize cases of a mysterious and frighteningly common bladder disease, especially in neutered male cats. Scientists studied the problem and declared it to be the result of an unfortunate narrowing of the urethra in these altered male cats. These experts also blamed the sedentary lifestyle and inadequate water consumption of the increasingly indoor pet cat. Some nutritionists insisted that this problem was also related to minerals in the diet of these cats and a strange shift in the urine acid levels of affected cats. Even though the theory pointed to the truth that the food was at fault, not the cat, still no one thought to stop feeding cereal to cats. Instead, the industry devised yet more additives for the existing flawed diets to try to correct the problem with these cats.

Unfortunately, bladder disease in many cats was not controlled with these dietary additives, and a large number of pets either died of the disease or were subjected to a very mutilating and painful surgery to save their lives. During this frustrating period of research and new product development, no one came forward with the now-obvious solution to the problem.

Some years after the first observations of the urinary tract problem in commercial-food-fed cats, veterinarians started noticing that more and more of their feline patients were obese, and an alarming number were becoming uncontrollably diabetic. The blame was placed on the new sedentary couch potato lifestyle of the cat. According to the popular theory of that time, house cats didn't exercise, were bored with indoor life, had nothing to do but eat all day, became lazy and unmotivated, and obesity naturally resulted. It was the cat's fault, again.

In an effort to save the cat from itself, pet food company nutritionists once again modified the formulas of their diets, took fat out, added cellulose (indigestible, completely non-nutritious fiber) to diets designed for an omnivore or herbivore rather than a carnivore, and insisted that owners feed smaller portions to their already nutrient-starved cats. Despite the superficial logic of such an approach, it failed to work to reduce the incidence of obesity or diabetes. The cats got fatter, they developed diabetes in increasing numbers, and their diabetes proved far more difficult to control than the similar type of adult-onset diabetes seen in humans or dogs.

Bladder problems, obesity, and diabetes are not the only chronic diseases that have become epidemic among cats. Today, veterinarians are presented with more and more cats with symptoms of allergic disease than ever before. Skin rashes and self-mutilation from intensely itchy skin, chronic ear infections, asthma, and inflammatory bowel disease are on the rise. These are all signs of an immune system out of control, which has turned on itself. Unfortunately, the widespread use of steroid medications, prescribed to quiet these signs of allergic distress, can cause disease in the cat that is as severe as the original allergy.

Once again, pet food companies have come up with newer, much more expensive cereal-based diets with “designer” ingredients to solve the problem. Nonetheless, the problems persist, few cats improve, and the cat's “faulty” immune system gets the blame. Each time a new disease syndrome is recognized, the pet-care industry's response is the same.

Despite the dramatic increases in diagnosed chronic disease in cats, few individuals have stepped back and asked the obvious questions: “Why is a healthy, previously well-adapted species developing these problems now? Is it possible there is something fundamentally flawed with our basic care of these cats? Are we making things worse by adding more and more unnatural substances to the cat's diet to patch problems of our own making? Is it the cat's fault, or ours?” The answer to all of these questions is clear. In attempting to make life more healthful for our pet cats, we have been putting the wrong fuel into their internal engines, with disastrous results.

While our cats may be protected better from early death due to trauma and infectious disease in the comfort of their new home-based lifestyle, they are now suffering from often lethal dietary diseases. Making matters worse, those diseases have always been treated by mainstream veterinary medicine with even more inappropriate dietary “solutions” that lead to even more disease and suffering. For the cat, this has become the ultimate vicious cycle.

The cat’s natural diet is high in protein and low in carbohydrate, with moderate amounts of animal fat. Today’s dry cat foods have high levels of processed carbohydrate, low levels of fat, and moderate levels of often low-quality protein, much of which may come from vegetable matter like gluten and soy. The damage caused by such an upside down diet for such a specialized animal cannot be overstated. Such an obvious mistake has created nearly all of the important medical conditions of cats today. (See D. Zoran, “The Carnivore Connection to Nutrition in Cats” www.catinfo.org/zorans_article.pdf.)

The diet of the feral top predator will contain almost no carbohydrate, usually less than 2 percent by weight. This small amount of carbohydrate will come from seeds and grasses, plus a small amount of muscle glucose consumed with the prey. On the other hand, dry cat foods contain between 25 and 50 percent carbohydrates from cereal grains like corn, rice, or starchy vegetables like potatoes. The types of ingredients are very high in carbohydrate to begin with, and they break down into sugars during the process of turning them into kibble. The cat consuming dry cat food is eating the kibble equivalent of sugarcoated breakfast cereal.

Dry cat foods are harmful for another reason. Cats are descended from desert predators, and they drink little free water naturally. Most of their water for survival comes from the foods they eat. When we feed dry, starchy kibble to a cat, we promote a constant state of subclinical dehydration, because the cat’s thirst drive does not compensate for the low water content of the diet. This dehydration contributes to bladder disease and kidney disease, at the very least. Certainly, constant dehydration is an unnatural physical stress on our cats. Most important, it is an *unnecessary* stress.

We all know that a steady diet of such junk food would be harmful to humans. For an obligate carnivore like the cat, the result is disastrous. Fortunately, the solution is clear and easy. We need simply stop feeding our cats unnatural foods meant more for fattening cattle than nourishing a top predator. Many canned pet foods, although flawed in some ways, still provide far superior nutrition compared to dry foods, even the so-called premium brands. Another alternative that appeals to many pet owners today is a raw meat-based diet. Raw meat is the natural food of the cat, and is really the “gold standard” of diets for any obligatory carnivore. We will discuss in the succeeding chapters how to choose the best canned cat foods, and how to safely feed raw meat to your cat.

By doing something this simple and obvious, we can cause changes in the health of our cats that are nothing short of miraculous.

Bad Cat? How Living Indoors Affects Feline Behavior

Because the so-called domestic cat is still very wild in its interactions with other cats, harmony between larger groups of even well-cared-for house cats is not assured. One of the most common complaints of my clients is aggressive behaviors between their pets. Such behavior may arise without warning, involving individuals that have previously been compatible. Such irritable or aggressive interactions can occur between same-sex cats or opposite-sex cats, even if they are all spayed or neutered.

While the exact inciting cause of such sudden changes in intercat relationships is often unknown,

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