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Unconventional Diets for Dogs and Cats

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Tell me what you eat and I will tell you what you are.—Anthelme Brillat-Savarin, 1825 [1]

The use of diet for the promotion of good health and in the management of disease is not a new idea, but it is one that has received increasing attention in recent years by the public and the scientific and medical community. People have always sought advice about how best to feed their pets from a variety of sources, including family and acquaintances, pet food retailers, breeders, and veterinary health professionals. Today, more than ever, with the growing use of the World Wide Web, veterinary health professionals are finding themselves dealing with a clientele that, for better or worse, has access to a large body of information on small animal nutrition and medicine. Nutrition finds itself in kind of a gray area in medicine that can range from accepted conventional practices to numerous forms of alternative therapy, including manipulation of diet and using a range of dietary supplements and herbal remedies. Today's veterinary health professionals are faced with the challenge not only of staying current with emerging research on clinical nutrition, including fads and popular trends, but of being able to understand why pet owners choose certain feeding practices and how to use effective strategies to influence them to change when it is in their pet's best interest to do so.

This article explores the reasons why people might seek alternatives to conventional pet foods, describes the different categories of alternative feeding practices, and discusses approaches to communicating with pet owners about nutrition and diet for their pets. The goal is for the reader to acquire a better understanding of unconventional feeding practices being used for companion animals so that she or he is better informed on the views and concerns of the pet-owning public regarding dog and cat nutrition and better able to enter into the dialog of how these pets should best be fed.

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WHY PEOPLE SEEK ALTERNATIVES TO CONVENTIONAL PET FOODS

Perspectives on Diet and Food Consumption

As health professionals, we tend to take a nutritional science perspective when thinking about food consumption. The focus is on eating practices that promote health, and thus should be encouraged, or that impair health, and thus should be discouraged [2]. This perspective makes food habits and preferences secondary to the biologic activities of foods and views social and cultural factors surrounding food consumption as barriers to achieving a healthy diet.

For human beings, food consumption is clearly a more complex act than the nutritional science perspective takes into consideration, and for at least a subset of the pet-owning population, food selection and feeding practices for pets are influenced by the same social and cultural factors that govern the pet owners' personal eating behaviors.

Defining What Is Food

What is and is not food is defined socially and culturally. In some cultures, insects are delicacies, and in others, the idea of eating them would be viewed with disgust. This is something that resonates strongly among pet owners with concerns about the wholesomeness of commercial pet foods. The reality is that the pet food industry makes use of the byproducts of the human food industry. In most cases, animal source ingredients are offal or rendered meals from tissues that have no market as human foods. One example is pork liver, which has limited appeal in the United States, and therefore ends up in pet food, whereas in France, pork liver finds its way into paté. It should be recognized that even though many people would not find these byproducts appealing, it does not follow that they are not nutritious. People should be encouraged to disclose any concerns they may have about commercial pet food ingredients and manufacturing processes. The challenge becomes one of persuading the pet owner to focus on other indicators of commercial pet food quality, such as Association of American Feed Control Officials (AAFCO) feeding trials rather than on the label ingredient list.

Symbolism of Food

Food can be symbolic of many things. First and foremost, food is a basic necessity of life, and thus part of the shared human experience. The role that diet and nutrition play in maintaining health and preventing or treating disease is something that is usually within the grasp of most people, even if they do not understand the nutritional science involved.

Food and meals are used to symbolize and order social interactions and have ritual significance in many religions. Dietary practices can be used to maintain barriers and reinforce social order and group identity. Therefore, although substitution of one type of food with another might create a better diet from the perspective of a veterinarian, the pet owner might meet the change with resistance because it violates that person's sense of propriety. This situation often arises when a pet is overweight and a weight reduction diet is suggested.

Curtailing treating behaviors or reducing feeding portions may be resisted, in part, because these practices are seen as excluding the pet from normal family life. Furthermore, because the receiving and giving of food are construed as a way of showing affection by many, some people may fear that their pet might perceive that they no longer love it if they withhold food.

Food can be a means by which individuals define who they are in contrast to others. Thus, food and eating behaviors contribute to how an individual creates an identity. This line of thinking might influence how pet owners feed their pets in a couple of ways. If they humanize their pets, they may simply transfer their attitudes about food to how they think their pets should be fed. Alternatively, people may consider how the pet's identity is defined by diet. For example, they may focus on the dog as a carnivore and assume that cereal grains are an unsuitable ingredient in a canine diet.

For certain individuals, ideology may play a role in how they themselves eat and how they feed their pets. The most obvious example of this would be individuals who choose a vegetarian or vegan lifestyle for reasons having to do with concerns about sustainable agriculture or humane treatment of animals.

One aspect of eating behaviors that should not be overlooked is the way in which dietary habits and food selection represent empowerment and control of one's life. Eating disorders can be extreme examples of seeking control through manipulation of food intake. A person facing a serious illness, such as cancer, may embrace a new eating regimen. Obviously, this is done consciously for the potential therapeutic effects, but the feeling of empowerment that comes with taking control also has to factor into why many pet owners seek and embrace nutritional interventions for their pets, particularly those pets with serious or incurable illnesses. Furthermore, as we all know, foods can have significant effects on psychologic well-being (eg, "comfort foods"). Therefore, the use of diet in the context of preventing or treating disease is often viewed as a more holistic approach to health maintenance than conventional medical practices.

Motivation for Using Unconventional Diets

So how and what a pet is fed can be layered with meaning. It may be, in part, symbolic of inclusion of the pet in the owner's family and culture, and thus part of the bonding between human being and animal. It may be reflective of the pet owner's ideology and personal identity. Alternatively, it may be an act of empowerment in which the pet owner becomes invested in the health and well-being of her or his companion. What motivates a person to seek an alternative to conventional feeding practices for her or his pet could involve any or all of the previously mentioned factors. The first step in communicating with someone about nutrition and dietary practices is actively to seek information about her or his attitudes and beliefs regarding proper diets for her or his pet.

TYPES OF DIETS

For the purpose of this review, unconventional diets are defined rather broadly to include alternatives to what are perceived as typical commercial pet foods,

such as commercially available "natural" diets, raw food diets, and vegetarian diets, in addition to the variety of home-prepared diets that exist (Box 1).

Home-Prepared Diets

Widespread feeding of commercially prepared pet foods is fairly recent practice found only in developed countries. Therefore, the home preparation of pet food has only been considered an unconventional practice in the United States for the past 50 years at most and would not be considered unconventional at all in much of the world. Many of the reasons people seek alternatives to commercial pet foods apply to people who desire to prepare food for their pets. Concerns about the wholesomeness and nutritional value of the ingredients used in commercial pet foods may be a consideration. For others, food preparation reinforces the bond they share with their pet. In some situations, people believe that their pets find commercial foods unpalatable and that they are likely to refuse to eat them. There are instances when a home-prepared diet may be indicated for diagnostic (eg, a food elimination trial) or therapeutic reasons. In cases in which a home-prepared therapeutic diet is sought, it may be because there is no commercially available diet that fits the desired nutritional profile or it may be because the patient refuses to eat the appropriate diets that are available. In addition, people may find comfort and a feeling of purpose through involvement in food preparation and feeding management for pets with chronic or terminal illness.

There are several potential drawbacks to home preparation of pet foods. The first is that it requires a greater investment of time, and likely of money, than feeding a commercially prepared pet food. The second potential drawback is that formulating a complete and balanced pet food requires specialized knowledge. The average pet owner needs to seek someone with this expertise, or at least to find a resource for a properly formulated recipe. This may not be a simple and straightforward task. Investigators reviewing recipes used for home-prepared pet foods from 116 veterinarians practicing in North America found that only 28 (65%) of 43 of the recipes used for long-term feeding of dogs and 18 (46%) of 39 of those recommended for long-term feeding for cats were nutritionally adequate (based on computer analysis) [3].

In another study, the nutritional adequacy of recipes for 49 maintenance and 36 growth diets from six published resources was reviewed using computer software [4]. Most of the diets (86%) were inadequate in various minerals, 55% were inadequate in protein (although 77% of those diets were only

Box 1: Alternatives to conventional commercial pet foods

- Home-prepared diets
- Natural, organic, or human food grade diets
- Vegetarian diets
- Raw food diets

deficient in taurine), and 62% were inadequate in vitamins (although 77% were only deficient in choline). That many of the ingredients in the software database had not been analyzed for taurine and choline has to be taken into consideration when interpreting these findings. Even so, based on this analysis, a number of the recipes seemed to have inadequacies.

One further concern is that even when a well-formulated recipe is provided, the overall nutritional adequacy of a home-prepared diet depends on the ingredients selected and how closely the person preparing the diet adheres to the recipe. There can be significant variation in the nutrient content of specified ingredients, for example, the fat content of ground beef. Furthermore, the person preparing the diet may have difficulty in finding one or more ingredients and opt to leave them out of the diet or may decide to substitute one item for another or even to include new ingredients in the preparation. Any of these actions could significantly change the nutrient profile of the diet and may ultimately make it unbalanced or unsuitable for the pet for which it was intended. Clearly, the likelihood of a nutritionally inadequate diet causing clinically significant adverse effects on health is more likely to occur in animals that have greater and more stringent dietary requirements: cats in general as well as growing, gestating, and lactating animals.

In situations in which a home-prepared pet food is indicated or when it is the strong preference of the pet owner, most problems can be avoided if she or he is provided with properly formulated recipes (Box 2 provides for resources for formulation of home-prepared foods) and with clear and thorough instructions on food preparation, including whether any substitutions or omissions are permissible. There should be follow-up contact with the pet owner two or more times a year (more frequently in growing animals and other pets with increased nutrient demands) to monitor for proper recipe use and to examine the patient for signs of nutrient deficiency or excess.

Natural, Organic, and Human Food Grade Diets

The types and sources of ingredients used in the manufacture of commercial pet foods are a chief concern among pet owners seeking alternative options for feeding their pets [5]. Artificial additives, particularly preservatives, colorings, and flavorings, provoke anxiety about the impact of long-term intake of these substances on health. Of special concern is the role that food additives could play in carcinogenesis and the development of dietary hypersensitivity or autoimmune disorders [6]. In addition to substances that are intentionally used in the formulation of commercial pet foods, there are potentially harmful contaminants (eg, pesticides and heavy metals) that can be found in some feed ingredients. For these reasons, pet foods free of artificial additives or those made of ingredients that are perceived to be more wholesome and safe appeal to some people.

These are reasonable concerns. There have been notable and well-publicized cases of additives that have been withdrawn from use, including examples involving pet food manufacture, such as the banning of propylene glycol in cat

Box 2: Resources for formulation of home-prepared diets

Angell Memorial: telephone consults (617) 522-7282

Michigan State University: telephone consults (517) 432-7782; diet analysis (517) 353-9312

Ohio State University: telephone consults (614) 292-1221 or (614) 292-3551

Tufts University: telephone consults (508) 839-5395 extension 84,696; VetFax 800-829-5690

University of Tennessee: telephone consults (865) 974-8387

University of California, Davis: telephone consults (530) 752-1387 (veterinarians); (530) 752-1393 (clients)

foods after it was found to cause Heinz body anemia [7,8]. In many instances, however, fears about the safety of pet food additives are unwarranted. Sometimes, an individual has simply mistaken one or more of the vitamins and minerals listed among the ingredients on a pet food label for chemical additives. Pet owners should be aware that additives are only permitted for use in pet food manufacture with oversight of the US Food and Drug Administration (FDA) and AAFCO. Sometimes, reports of health hazards attributed to an additive are anecdotal and unsubstantiated. Ethoxyquin, an artificial antioxidant, is an example of a compound that has been extensively tested in dogs. Although it has been found to be safe even when ingested at levels considerably higher than those found in commercial foods, the public perception that ethoxyquin could be harmful persists and many pet food manufacturers have turned to other types of antioxidant preservatives [6,9].

Perceived consumer preference for pet foods free of artificial ingredients has led some manufacturers to market natural products. Formulating a pet food free of artificial colorants and flavorings poses little challenge. Preservation, however, is necessary for dry foods in conventional packaging because they are exposed to air and contain ingredients (eg, fats, fat-soluble vitamins) that are subject to oxidation. Even a canned food may contain antioxidant preservatives if it was manufactured using fats and other ingredients that already contained these substances for preservation purposes. Therefore, manufacturers have turned to using naturally occurring antioxidant compounds, including mixed tocopherols and ascorbic acid, as an alternative to synthetic antioxidant preservatives. All pet foods should be tested for stability to establish each product's shelf life. In general, chemical preservatives like ethoxyquin are more effective antioxidants than natural preservatives like mixed tocopherols. Therefore, it is of particular importance that people using naturally preserved pet foods select a product that is labeled with a "best used by" date and that they do not feed food past the label date, although such labeling is not mandated by any government agency.

At the time that naturally preserved pet foods first started to be marketed, regulations for defining ingredients or labeling products as natural did not exist.

The AAFCO has since defined a natural ingredient as one that is derived solely from plant, animal, or mined sources and a natural product as one in which all ingredients meet this definition [10]. The term *natural* is not synonymous with the term *organic*. As of 2002, the US Department of Agriculture (USDA) has established standards that foods labeled organic must meet (Box 3), and although, technically, an organic pet food should meet these standards, the AAFCO has not written labeling regulations that expressly state this requirement.

Some pet foods are marketed as containing human-grade ingredients. These foods would presumably have an appeal for individuals who are leery of what they perceive to be the types and sources of ingredients found in commercial pet foods. Currently, there are no government standards for defining the term *human grade*. A pet food manufacturer is free to interpret and use this designation as it sees fit. Chances are that in many cases, the public has a different perception of what human-grade ingredients would consist of than what is actually used in the manufacture of one of these pet foods.

In summary, there are commercially available natural pet foods, and some regulatory oversight of the labeling of these foods exists. Therefore, people looking for natural alternatives to conventional pet foods do have this option, aside from home preparation of food, for feeding their pets. Although it would be possible to manufacture a pet food from certified organic ingredients, there are currently no rules for the labeling of pet foods as organic products. Currently, there are also no standards for designating pet food ingredients as human grade. Last, all pet foods should be fed in accordance with their shelf life, and, ideally, this information should be available on the product label.

Vegetarian Diets

People may choose to follow a vegetarian diet for a variety of reasons, including religious beliefs, ethical concerns, and health considerations. Some individuals are so strong in their convictions that they wish to feed their pets in a similar fashion. One investigation found that ethical concerns, followed by health considerations, were the most common reasons people stated for choosing to feed their cats a vegetarian diet [11]. In that same study, all persons interviewed who were feeding a vegetarian diet to their cats also reported being a vegetarian themselves.

Box 3: US Department of Agriculture Organic Food Standards

- Animal source ingredients come from animals that are given no antibiotics or growth hormones.
- Organically grown food is produced without using most conventional pesticides, fertilizers made with synthetic ingredients or sewage sludge, bioengineering, or ionizing radiation.
- Producers and processors of foods that are labeled organic must be inspected and certified by the USDA.

Formulating a complete and balanced vegetarian pet food can be challenging. Several nutrients that are essential in the diets of cats are only found in animal source ingredients (eg, taurine, vitamin A), in fermented foods (cobalamin), or in trace amounts in some algae (arachidonic acid). Cobalamin is also an essential nutrient for dogs. Furthermore, the protein requirement of dogs and especially cats is significantly higher than the human protein requirement, and several of the essential amino acids are limited in most vegetable sources of protein. There is a wide range of dietary practices that fall under the designation of vegetarianism, and some of them include eating animal products, such as milk and eggs. With the strictest form of vegetarianism (veganism), however, it would be necessary to use synthetic forms of some nutrients to make a complete and balanced vegan feline diet, and as such, the diet could not also be designated as natural.

Because the nutrient requirements of dogs are not as stringent as those of cats, there are a number of commercially available vegetarian and even vegan canine diets available, including some that have demonstrated nutritional adequacy through an AAFCO feeding trial. The options for vegetarian feline diets are much more limited and, with few exceptions, require home preparation of a diet with the use of special supplements. The nutritional adequacy of vegetarian pet foods has been investigated. One study analyzed 12 commercially available vegetarian dog foods and found that only 2 of them were nutritionally adequate [12]. The same investigation also reviewed home-prepared vegetarian diets that were being fed to 86 dogs and 8 cats and found many of them to be nutritionally inadequate in ways typical of home-prepared diets. In another investigation, a commercially available complete vegan cat food and a vegan feline diet prepared with a commercially available supplement according to the supplement manufacturer's directions were analyzed for several key nutrients [13]. Neither diet was found to meet the feline AAFCO nutrient profile comprehensively for any life stage. The taurine and cobalamin status of cats eating one or both of those diets were evaluated by other investigators, who found that all the cats tested had normal serum cobalamin concentrations and that 14 of 17 had whole-blood taurine concentrations within the reference range [11]. None of the cats with low blood taurine concentrations showed signs of taurine deficiency, and their blood levels were above what is considered to be the critical level for taurine status.

The findings of these two studies serve to illustrate the challenges of formulating a nutritionally adequate feline vegetarian diet. They also illustrate the pitfalls of relying simply on formulation and analysis as means of showing nutritional adequacy and the need for AAFCO feeding trials and a high level of quality assurance in manufacturing to ensure confidence in the finished product.

Because selecting this type of diet is a conscious choice on the part of these individuals, it should be relatively easy to enter into a dialog with them over the appropriateness and nutritional adequacy of these types of diets for dogs and cats. Some people may be willing to consider the ethical implications of feeding an animal a diet that can only meet its nutritional requirements through

artificial manipulation and to weigh that consideration against the motives for their personal dietary choices. The same concerns and considerations that apply to home-prepared diets in general apply to home-prepared vegetarian diets, with the additional challenges of finding appropriate supplemental sources of the essential nutrients that are limited or absent in nonanimal source ingredients. Given that the nutritional adequacy of some commercially available vegetarian pet foods has been called into question, it would be prudent to advise regular follow-up with the pet owner feeding these diets, similar to what would be appropriate for an animal eating a home-prepared ration.

Raw Food Diets

Diets containing raw meat have been used for feeding animals for many years, especially by zoos and dog-racing facilities. The use of these diets for companion animals as an alternative to conventional pet foods, however, is a fairly recent development. It is difficult to gauge the popularity of raw food diets. The proponents of feeding raw food diets, some of whom are veterinary health professionals, are vocal and enthusiastic about the purported benefits of this dietary approach and promote them energetically and, at times, evangelically. A telephone survey of a random sample of pet owners from four different geographic locations across the United States and one location in Australia found that 8% of dog owners and 4% of cat owners fed raw meat with or without bones as all or part of their pet's main meal [14].

Raw food feeders can home-prepare diets or use commercially available raw products. The commercial products range from complete foods, which are generally sold frozen, to grain and supplement mixes, which are then combined with raw foods. Raw food diets have been promoted for their health benefits in terms of preventing disease and resolving or ameliorating preexisting conditions [15,16]. Objective evidence to substantiate these claims is lacking, however. Aside from their purported health benefits, one of the rationales for feeding raw food to pet dogs is that "there are no ovens in the wild," even though the domestic dog is well removed from its wild canid cousins. For some people, the raw diet becomes a symbol of the wild carnivore nature of the pet dog.

The reservations that have been expressed about raw food diets fall into two categories: nutritional adequacy and food safety issues, including public health concerns. With regard to nutritional adequacy, home-prepared raw food diets have the same drawbacks affecting any home-prepared diet. In one report, three persons feeding home-prepared raw food to their dogs provided samples of the diets for analysis of key nutrients. When the analyses were compared with the canine AAFCO nutrient profiles, all three of the diets were found to have nutrient excesses and deficiencies [17]. The consequences of feeding nutritionally inadequate diets are most likely to be serious in animals with increased nutrient demands, as is illustrated by a report of two different litters of puppies fed raw food diets, in which all the puppies developed severe nutritional osteodystrophy by 6 weeks of age [18]. Raw food diets, even those

containing bones, can still be deficient in calcium, particularly when poultry bones are used [17]. Furthermore, newly weaned puppies have trouble ingesting bones unless they are finely ground.

With regard to the second concern, food safety, aside from the risk of gastrointestinal obstruction posed by feeding bones, home-prepared and commercial raw food diets have been evaluated for bacterial contamination [17,19–21]. In one investigation, 80% of home-prepared diets containing chicken were found to be contaminated with *Salmonella* spp [19]. Two investigations of commercial products found most products tested to be contaminated with *Escherichia coli* [20,21]. *Salmonella* spp were detected in 6% of the products tested in one study and in 20% of the products in the other. Protozoal contamination is of concern as well. Infection with *Toxoplasma gondii* has been reported in cats fed raw diets, and one investigation found evidence of *Cryptosporidium* spp in two commercially available raw food diets using a polymerase chain reaction (PCR) assay [21,22].

The risk of contracting an infectious disease from a raw food diet is not confined to the pets themselves [23]. People living in the same household as the pet are also at risk because they may come in contact with contaminated food through the preparation and feeding of a raw diet. Furthermore, it is documented that pets being fed raw food diets can become asymptomatic shedders of pathogens, including *Salmonella* spp and *T gondii* [19,22].

As with any dietary practice, the dialog with the pet owner must begin with an effort to understand her or his reasons for choosing to feed a raw food diet, including any concerns that she or he may have about conventional pet foods. It may be possible to address those concerns or offer alternatives that would avoid some or all of the risks inherent in feeding raw foods. Some people who are steadfast in their desire to home-prepare food for their pets may be persuaded to cook the food. As has already been discussed at length, care must be taken to ensure the nutritional adequacy of any home-prepared diet that is used for the long-term feeding of a pet. Others who insist on feeding raw food diets should be fully informed about all food safety issues and all aspects of hygiene involved in food preparation, interaction with the pet, and disposal of the pet's feces. It is incumbent on the proponents of raw food diets to produce scientific evidence of the efficacy and safety of this dietary practice. Although the pet owner ultimately decides how to feed her or his pet, she or he should be fully informed that although there are documented risks associated with raw diets, the potential health benefits are at best anecdotal.

CHANGING FEEDING PRACTICES

In recent years, there has been increasing focus on developing more effective ways for health professionals to communicate with their clients with the aim of improving compliance with prescribed treatments. Making an effort to talk with patients about their knowledge, beliefs, concerns, and expectations about their conditions has been shown to result in better adherence to treatment regimens [24]. Exploration of all these issues from a patient's perspective on her or his illness permits the attending health professional specifically to address

deficiencies in knowledge or understanding of the condition and its treatment and the patient's ability and willingness to pursue a particular course of therapy.

With regard to dietary practices, despite a basic uniformity in nutritional requirements and physiologic needs, there is considerable variation in what people eat. In the case of pet dogs and cats, their owners largely determine what these animals eat on a daily basis. Yet, in many if not most cases, client education alone does not succeed in changing habits and behaviors relating to how a pet is fed. Just as a person's social and cultural context influences her or his own dietary habits, it also has an impact on how and what a pet is fed. Therefore, it is important to consider the social and cultural aspects of food consumption by people to communicate effectively with them about their pet's nutritional needs and appropriate dietary management, particularly if you are attempting to change current behaviors.

Frequently, circumstances arise in which a change in diet or feeding practices is suggested or recommended for a patient. To succeed in persuading the pet owner to follow our advice, we need some basic information, including how the pet is currently fed and an understanding of the rationale for those practices. The best way to obtain this information is to take a thorough dietary history. This can be done in an interview fashion, or you can use a standardized form that the pet owner can fill out at her or his convenience. The dietary history should consist of an accurate accounting of all foods fed to the pet on a typical day. It should include brand names of commercial pet foods and treats and specific amounts fed. Most pets get table foods, and some receive diets that are home-prepared. You should try to get the most accurate information available about the pet's consumption of table foods and, in the case of home-prepared diets, complete recipes. The pet owner may have to go home and keep a food diary for a few days before she or he can actually answer these questions. Other things to inquire about include whether the pet has access to the food fed to other pets in the household and whether there are other family members feeding the pet.

This information should greatly facilitate the process of implementing dietary therapy for the patient. It should help in making an appropriate diet selection and an accurate feeding recommendation. Most importantly, in regard to the topic at hand, the dietary history can give you some insight into the role that food plays in the interaction between the pet and the human members of its household. This insight should allow you to anticipate concerns and issues that might arise from implementing a change in feeding practices.

The diet history should be used to understand the pet owner's attitudes toward commercial pet foods, feed ingredients, and nutrition and nutritional therapy. Also seek to understand the pet owner's rationale for current feeding practices and to assess any concerns that may arise from a diet change. By anticipating problems, you should be able to craft the dietary intervention in a way that is more acceptable to the pet's household or, at the very least, to communicate more effectively with the pet owner about the rationale for the changes in feeding management. You should be in a better position to explain

Box 4: Negotiating a mutual plan of action for changing feeding practices

- Obtain the pet owner's beliefs and understanding about how her or his pet should be fed.
- Obtain the pet owner's viewpoint regarding the need to change feeding practices (eg, perceived benefits, barriers, motivation to changing practices).
- Take into consideration the pet owner's beliefs, cultural background, lifestyle, and abilities when formulating your plan for dietary modification.
- Elicit the pet owner's reactions and concerns about the proposed dietary modifications.

Adapted from Calgary-Cambridge guide to the medical interview-communication process. Available at: www.med.ucalgary.ca/education/learningresources/CalgaryCambridgeGuide.pdf. Accessed April 2006.

why you believe the changes you are proposing are in the pet's best interest and to look for compromise when your recommendations and the pet owner's preferences are in conflict (Box 4).

SUMMARY

To understand why some people seek alternatives to conventional commercial pet foods, we must keep in mind that food plays a far more complex role in daily life than simply serving as sustenance. How and what a pet is fed can be layered with meaning for the owner, and we must seek some understanding of that person's knowledge and beliefs about feeding pets to understand her or his motives for seeking an alternative and to be able effectively to persuade her or him to change those practices when it is in the best interest of the pet to do so.

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