

Extended Nutrition Evaluations

When one identifies a risk factor during brief nutritional screening, an extended evaluation may be indicated. Such an evaluation may be undertaken in a variety of ways, and lead by unpredictable responses to sometimes surprising results (as can any in-depth evaluation). For example, a difficult obesity therapy case was resolved when the client came home unexpectedly shortly after leaving for work to find that the dog, confined to an outdoor yard while the owner was at work, was barking at the neighbor's fence until the neighbor came out and fed him.

Extended evaluations follow the principles of effective professional communications. Creating a trusting rapport with the client facilitates candid discussion to obtain honest, pertinent, and comprehensive information for evaluation. Using communications techniques of asking open-ended questions, using reflective listening skills, and making empathic statements as appropriate have been found to encourage sharing of information.¹

To assist with the task of extended nutrition evaluation, we have provided some general areas of inquiry in Table 1, some more specific questions in Table 2, and a form that may be adapted to specific circumstances. Although it may not be possible to provide comprehensive guidance for all situations that may arise, most can be addressed with patience, practice, and using the communications skills mentioned.

1. Frankel RM. Pets, vets, and frets: what relationship-centered care research has to offer veterinary medicine. *J Vet Med Educ* 2006;33:20-7.



Table 1. An Organizing Framework to Review Before Extended Nutritional Interview of Client

	Screening	Animal	Diet	Feeding	Environment
History					
1	Altered GI Function	Effect on appetite or food intake?	Food intolerance Spoiled food	Overeating, eating too rapidly	Barren or chaotic environment – stress responses have been associated with altered proximal and distal GI function
2	Previous or ongoing medical conditions/disease	Effect on appetite or food intake?	Is the pet on the correct diet for the disease?	Is the disease affecting amount or frequency of food intake	Effect on access to or competition for food?
3	Currently receiving medications and/or dietary supplements	Effect on appetite or food intake?	How is this affecting diet adequacy?	How are these affecting food intake? Total calorie intake?	Who is doing this (do they know what else is being fed)? How is the interaction affecting others in the environment?
4	Unconventional diet (e.g., raw, homemade, vegetarian, unfamiliar)	How is the pet affected?	Is the diet satisfactory?	Is food intake appropriate?	Are other features of the environment affected by the owner's husbandry practices?
5	Snacks, treats, table food > 10% of total calories	How is the pet affected?	How is this affecting diet adequacy?	How are these affecting food intake?	Are other features of the environment affected by the owner's husbandry practices?
6	Inadequate or inappropriate housing	Effect on quality of or access to food?	Concern about adequacy of diet?	How is this affecting food intake?	Barren or chaotic; competition for food or other resources
Physical Examination					
7	Body condition score	Many diseases	Quality, suitability for the situation identified	Amount, frequency	Result of access to or competition for food?
8	Muscle condition score	Many diseases	Quality, suitability for the situation	Amount, frequency	Result of access to or competition for food?
9	Unintended weight loss of > 10%	Many diseases	Quality, suitability for the situation	Amount, frequency	Result of access to or competition for food?
10	Significant dental disease or disorder	Effect on appetite or food intake?	Quality, suitability for the situation	Amount, frequency	Other animals in the environment with similar problems.
11	Poor skin or hair coat	Effect on appetite or food intake?	Quality, suitability for the situation	Amount, frequency	Other animals in the environment with similar problems.
12	New medical conditions / disease	Effect on appetite or food intake?	Quality, suitability for the situation	Amount, frequency	Other animals in the environment with similar problems.

Table 2. Some Extended Nutritional Interview Questions to Consider Asking Clients

Animal	May be due to variable combinations of health issues, changes in diet or feeding management, or in features of the environment, including those related to the owner
Weight	Have you noticed any recent (past 6 months) changes in your pet's weight?
Activity	Describe what your pet does daily. How do its activities change during the week? Season? Year?
Appetite	Is your pet hungry all the time? Not interested in food? Seem to be satisfied with feedings?
Eating Habits	Does your pet eat everything in one sitting? Nibble? Take one piece and go to another place to eat it, going back & forth between the bowl and the other place?
Chewing Habits	Does your pet chew its food, inhale it without chewing, chew on one side of the mouth only?
Diet	In addition to giving one a better picture of the diet, these questions also may provide some helpful insights into the relationship between the pet and the owner that may have clinical relevance
Kind of Food	What brand of food? Is it canned, semi-moist, dry, etc? List and describe here, and also bring in a label and sample of food if possible. How long have you fed the present diet? If a change was made, what motivated it? <i>Seeing the label and the actual food may help clarify what exactly is fed, and may give an idea of the freshness/storage conditions of the diet.</i>
Homemade Diet	Do you feed a homemade diet? If so, please describe the recipe and how you make it. How often is a new batch made?
Exclusive Diets	Do you feed a vegetarian or all meat diet? If so, please describe it.
Combination of Diets	Do you feed more than one type of diet? More than one purchased diet? Purchased and homemade? Variety of homemade?
Flavor Enhancers	Please describe anything you add to the food for more flavor; gravy, broth, etc?
Treats	Please list all treats you give your pet any in addition to its regular diet
Supplements	What food supplements or vitamins (powdered, liquid, gel caps, pills, etc) do you give your pet?
Medication Additives	Are any of the medications mixed up into a liquid or more appealing flavor? If so, please describe
Feeding	The combination of diet and feeding management information can often reveal situations the owner was not aware of, such as the "extra" calories in treats or foods used to mask medicines, the total number of feeders, etc. Such epiphanies can be uncomfortable for the client, so maintenance of a trusting relationship may facilitate their willingness to reveal information.
Who Feeds	Same person every day?
Feeding Habits/Regimen	Do you fill the bowl and leave it out all day? Do you only leave it out a certain amount of time during the day? How long do you leave it out? How many times do you feed your pet a day? Describe you and your pet's daily feeding routine
Where Fed	Where do you feed your pet? Outside? Inside? Same room?
Amount Fed	How much do you feed your pet? Describe size of cup/bowl/can used to hold or measure food. Do you feed the same amount at every meal?
Time of Day Fed and Watered	What time(s) do you feed your pet?
Hiding Medication	When giving medication, what do you put it in (food, pill pockets, etc.) or cover it with (peanut butter, cheese, etc.)?
Drinking Habits/Regimen	Do you fill the bowl and leave it out all day? Do you only leave it out a certain amount of time during the day? How long do you leave it out? How many times do you water your pet a day? Describe your pet's daily watering routine
Environment	Assessment of the environment may suggest that the animal eating behaviors are being affected by boredom, anxiety, competition for resources, others in the environment, etc.
Environmental considerations	Where is your pet housed (indoor, outdoor, both)? What type of flooring does it have? (grass, concrete, gravel, etc.) How many pets do you have? Are they all fed together? Do they share bowls? Do they compete for the food? Other? Describe. Does your pet have access to other species or pet(s) food? In your house? Outside/yard? Neighbors? How much time does your pet spend alone or without the opportunity for interactions? What opportunities does your pet have to explore and interact with species-appropriate features of its environment
Hunting/Scavenging Habits	Does your pet get into garbage, take food off of counters, high chairs or tables, hunt and eat other animals, get into other pet's or animal's food?

Pet's Name	Owner's Name
Pet's Nickname	Address
Breed (what kind of dog, cat, bird, etc)	City
Age (how old or birth date)	State Zip

Current/Previous Weight – What is your pet's current weight? Has it been stable, or has it changed within the past year or so?	Inquire if not obtained during medical history,		
Activity – Please describe what your pet does daily, including changes with day of week, season, or any certain times of the year.	In addition to an estimate of activity, this also may provide data on the environment, and relationship with the owner.		
Appetite – Please describe your pet's interest in food; hungry all the time, not interested, other?	This may be different for different feeders, suggesting that the pet may have figured out how to get what it wants. Also sometimes different for usual food vs. favorite foods, which may differentiate between fatigue with diet vs. change in health status		
Eating Habits – How does your pet eat? Everything in one sitting? Nibble? Take one piece and go to another place to eat it, going back & forth?	May provide information about appetite, competition for resources, dominance, etc.		
Chewing Habits – Does your pet chew, or “inhale” food without chewing? Chew on one side of the mouth only, etc?	May suggest presence of dental or orofacial abnormalities.		
Hunting/Scavenging Habits – How often does your pet get into garbage, take food off of counters, high chairs or tables, hunt other rodents or animals and eat, get into other pets or animal's food?	May provide data on the environment, and relationship with the owner, as well as risk for ingestion of non-food substances.		
Supplements – What supplements or vitamins do you give your pet? (powdered, liquid, gel caps, pills, etc)	May provide additional information on nutrient intake, as well as owners feeding “philosophy”		
Giving Medication – What do you cover (peanut butter, cheese, etc) or give (food, pill pockets, etc) medications in?	Often a “hidden source” of additional calories		
Medication Additives – Please describe any medications mixed up into a liquid or more appealing flavor?	May suggest a “hidden source” of additional calories, and provide data on the relationship with the owner if the need to flavor the particular medication not usually necessary.		
Kind of Food – Please list all brands of food that are fed, including if they are canned, semi-moist, or dry	Must be precise of nutrient content is to be evaluated or manufacturer is to be contacted. May ask owner to provide labels		
Homemade Diet – if you feed a homemade diet, what are the ingredients? How and how often do you make it?	Need exact recipe if nutrient content is to be evaluated or requested from a nutritionist. Details of preparation may provide data on risk of microbial contamination		
Exclusive Diets – Do you feed your pet an all vegetarian or meat diet? If so, please describe.	Need exact recipe if nutrient content is to be evaluated or requested from a nutritionist. Details of preparation may provide data on risk of microbial contamination		
Combination of Diets – Please describe any combinations of diets fed; purchased and homemade? Variety of homemade? Other mixtures?	May provide additional information on nutrient intake, as well as owner's nutritional or feeding “philosophy” or preferences.		
Flavor Enhancers – Please describe any anything you flavor food for flavor, gravy, broth, other?			
Treats – What treats do you give your pet (including table food) any treats in addition to the regular diet?	What?	How much?	How often?
Feeding practices – Please describe your pet's daily feeding routine. If you feed from a bowl, do you leave it out all day? Only part of the day? If so, how long do you leave it out? At what times do you feed your pet each day? If you do not use a bowl, please describe how you feed.			
Drinking Habits/Regimen – Please describe your pet's daily watering routine. If you put water in a bowl, do you leave it out all day? Only at certain times of the day? If so, how long do you leave it out? How many times do you water your pet each day? If you do not use a bowl, please describe how you provide water for your pet.			
Amount Fed – How much do you feed your pet? Do you measure with a of cup/bowl/can? How big is it? Do you feed the same amount at every meal?			
Where Fed – Where do you feed your pet? Outside? Inside? If inside, what room(s)?			
Who Feeds – Who feeds your pet? Same person every day?			
Housing Considerations – Where is your pet housed? If outside, on what surface (s)? (grass, concrete, gravel, rock, etc.)			
Stress Considerations – How many pets do you have? Are they all fed together? Do they share bowls? Do they compete for the food? Other? Describe.			
Access to other food – Does your pet have access to other species or pet(s) food? In your house? Outside? Neighbors?			

This version of the evaluation provides some rationale for the questions asked. The rationale is not meant to be exhaustive, only to suggest how some kinds of information that may be obtained might be incorporated into a more comprehensive picture of the situation in question.

Question	Rationale						
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Amount Fed – How much do you feed your pet? Do you measure with a of cup/bowl/can? How big is it? Do you feed the same amount at every meal?	May provide additional information on owner’s attention to pet’s food intake, accuracy of amount fed.						
Where Fed – Where do you feed your pet? Outside? Inside? If inside, what room(s)?	May provide additional information on owner’s feeding “philosophy” or preferences, relationship with pet, and environment.						
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