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Nutrition – Home Made Diets

What should I know about feeding a home-prepared diet to my pet?

The first inclination of some people when feeding a home-prepared diet to their pet is to simply feed the animal leftovers of what they are eating. It should be realized, however, that the nutritional needs of dogs, cats and humans differ. Humans are omnivores, and can maintain excellent health on a meat-free diet with only minimal dietary supplementation. Dogs are facultative carnivores, and therefore able to make better use of non-meat ingredients. To a significant extent, however, dogs are also well adapted to a high meat diet.



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Cats are obligate carnivores and must consume meat. Veterinary nutritionists have determined that cats have no biological requirement for carbohydrates in their diet, suggesting that a high meat and low grain diet may be ideal for their well-being. It is important to realize that cats are not just small dogs!

The optimal diet varies from species to species, and contains an ideal ratio of the major essential nutrients of proteins, fats and carbohydrates, as well as adequate levels of trace nutrients such as vitamins and minerals. The specific requirements of an individual within a species may vary somewhat by age, health, and level of exercise. Over the course of a day, a properly balanced diet should meet the animal's minimum caloric needs for energy, and should not exceed its maximum energy requirements.



Home-prepared diets require supplemental calcium, but ALWAYS follow a recipe since mineral imbalances can occur when improperly used.

How do I determine what is a properly balanced diet?

Creating a balanced diet for a pet may seem to be a formidable task, but there is an easy way to do it. Simply follow diet recipes that have been formulated by animal nutritionists or that otherwise are shown to meet the basic nutritional requirements for the species. To avoid trace nutrient deficiencies or excesses, it is recommended to vary the source of each diet component (for example, using different protein, vegetable, and grain sources with each batch of food).

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Because all meats and most vegetables are deficient in calcium, it is absolutely necessary to provide supplemental calcium in the diet. To meet the minimum daily requirements, it is usually necessary to add other minerals or vitamins. For this reason, most diet recipes include vitamin and mineral supplements.

Vitamin supplements added before or during the cooking process may become denatured or inactivated, and should instead be added after food preparation is complete.

Calcium supplements can be added at any time during the cooking process. Calcium citrate may be a more bioavailable form of calcium than calcium carbonate, and the citrate molecule may help solubilize calcium in the urine and prevent calcium oxalate stones.

Some vegetables, such as broccoli, kale, and collard greens contain high levels of calcium in a bioavailable form, and should only be included in a diet if specifically directed. Although spinach is high in calcium, it does contain high levels of oxalates, which may predispose some animals to develop urinary stones.

What are the benefits of home-prepared diets for my pet?

Supporters of feeding home-prepared diets to pets emphasize the importance of a variety of fresh whole foods for the maintenance of health. The benefits of homemade diets include confidence in the freshness and wholesomeness of the ingredients (especially if you use organic source foods), and the potential inclusion of non-essential or synergistic components in the diet. Many dogs and cats have improved hair and skin condition and increased levels of energy on homemade diets. The exception to this is the pet with pre-existing allergies or intolerances to one or more components of the diet.



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What are the risks of home-prepared diets for my pet?

As mentioned above, it is not enough to just feed a diet of table scraps, or to toss some meat, grains, and vegetables into a bowl for your pet. If you do that, your pet could end up malnourished as opposed to undernourished. You can decrease these risks by using recipes that have been analyzed for nutritional adequacy and by adhering strictly to the recipes when preparing the food. Avoid using recipes that are complicated or time-consuming to prepare, since you will be more likely to take shortcuts in the preparation.

While a recipe for a home-cooked diet may appear to come from a knowledgeable source, ideas about what constitutes the ideal diet for dogs and cats is currently evolving. Rigid adherence to one recipe over a long time may thus cause severe nutritional imbalances if that diet is later found to be inadequate.

Problems may occur if diets are either under- or over-supplemented with certain vitamins and minerals. The most common imbalances in home-prepared diets involve calcium, phosphorus, zinc, magnesium, and iron. Animals have different nutritional needs based

on their life stage and lifestyle. For example, both growing animals and animals used for breeding have increased requirements for energy, and require enhanced protein levels and optimal ratios of vitamins and minerals to support growth and reproduction. The advice of a veterinarian with advanced nutritional knowledge is imperative to decrease these avoidable risks to the pet's well-being.

Some popular authors of pet diets recommend feeding grain-free (or carbohydrate-free) diets, raw meat diets, or bones and raw food diets. Some animals fed these diets show impressive clinical improvements in health, which is perhaps not surprising given that dogs and cats are largely carnivorous. Other animals do not fare as well on these types of diets, possibly because of improper nutritional balance.

Raw meat and poultry are commonly contaminated with bacteria, some of which are pathogenic or harmful. Cooking will kill bacteria, although it may not necessarily destroy toxins that were produced by the bacteria.

"Freezing does not kill bacteria..."

Freezing does not kill bacteria (in fact, bacteriologists use freezing to preserve bacteria, viruses, and fungi), and improper food storage allows them to multiply. Advocates of raw meat diets maintain that healthy animals are resistant to the bacterial pathogens found on commercially available raw meat sources. Critics of raw meat diets maintain that bacterial pathogens common in intensively reared poultry and livestock could represent a health risk to animals or their owners, mainly through environmental contamination. To minimize these risks, it is necessary to ensure that the ingredients are stored properly, that good food preparation practices are followed, and that you pay strict attention to hygiene, including hand washing after food preparation, sanitation of food bowls and feeding areas, and immediate cleanup of feces.

Both animals and humans with immature or otherwise compromised immune systems may be more susceptible to illness caused by bacteria. Therefore, the risks and benefits associated with raw food must be carefully considered if there are young or old family members or pets, or if any member has health issues such as cancer, immunodeficiency disease, or if anyone is undergoing chemotherapy.



Cooked bones must NEVER be fed, and general caution is advised when feeding raw bones, as intestinal accidents can occur.

Likewise, raw bones are not without some risk; several cases of fecal impaction and intestinal accidents such as bowel perforation have been reported. Most problems associated with raw bones have been caused by feeding an inappropriate size of bone, either one that is too small or too large.

"Cooked bones must NEVER be fed..."

Cooked bones must NEVER be fed, since they are brittle and prone to splintering, that can cause both obstructions and perforations of the intestinal tract.

How can I minimize these risks?

Be honest with your veterinarian, and discuss exactly what you feed your pet, including any treats or supplements that you provide. Your veterinarian can help you ensure that your pet's diet is appropriate, or can direct you to some appropriate sources for information, including reputable references for healthy recipes for home-prepared meals.

Have your pet examined regularly so that any early indicators of problems may be detected. Since animals age more rapidly than humans, a good rule of thumb is to have a complete physical examination every six months. In addition to a physical examination, it is prudent to have a biochemical analysis and complete blood count conducted on the pet's blood at these intervals. Periodic radiographs to assess bone density and structure as well as tissue density will assist in detecting overt mineral imbalances such as calcium deficiency. By having a baseline and several sets of test results available, your veterinarian can compare results over time and may spot trends that indicate potential problems.

What symptoms or conditions are most often treated with home-prepared diets?

Symptoms such as excessive shedding, itching, skin lesions, and digestive disturbances may be caused by food allergies, intolerances to ingredients in commercial diets, or to the

nutritional inappropriateness of the diet for a specific individual, breed or species. Animals with specific dietary needs or health problems are often put onto special home-prepared diets that are nutritionally formulated to meet these needs. Pets that are inappetent, anorectic, or 'fussy' will often eat a home-prepared diet more willingly than commercial food.

How successful is treatment with home-prepared diets?

Animals with specific dietary needs or health problems show dramatic improvement in their state of health when fed a home-prepared diet that has been nutritionally formulated to meet these needs.

How do I know if the diet is properly balanced?

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For a fee, a sample batch of the diet can be analysed at a commercial food laboratory to determine its nutritional adequacy. The patient can be assessed by means of blood and urine analysis and radiographs to determine whether the pet is showing any sub-clinical abnormalities that could be related to dietary deficiencies or excesses.



What is the cost of home-prepared diets?

Home-prepared diets are often comparable in price to premium commercial diets. If the diet is prepared with organic source ingredients, its cost will increase.

How can I find out more information about home-prepared diets?

On the internet, you can find recipes and information about preparing home-made diets for your pet at www.petdiets.com or www.balanceit.com, and you can find more references and referral sources by going to the website of the American College of Veterinary Nutrition.

Your veterinarian will likely have nutritional textbooks that contain balanced recipes for feeding both healthy pets and pets with specific nutritional needs. Some of the large veterinary pet food manufacturers provide veterinarians with recipes for nutritionally balanced home-cooked meals that are useful in treating special disease conditions. For basic home-cooked diets, consult *The Manual of Natural Veterinary Medicine* by Dr. Susan Wynn and Dr. Steve Marsden, or *The Natural Health Bible for Dogs & Cats*, by Dr. Shawn Messonnier.

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