



Veterinary Specialty of the Day: Nutrition

Some veterinarians and veterinary technicians undergo further training to specialize in a specific field of medicine. Veterinarians who specialize in Nutrition are experts on how nutrients in food, such as vitamins and minerals, impact health and disease in animals.

Discussion Question

- Why is it important to eat a healthy diet?

Veterinary nutritionists are trained to...



Customize Diet Plans

Veterinary nutritionists can help create diet plans to keep animals healthy, whether the animal's owner wants to use store-bought food or wants to prepare a homemade diet.



Manage Nutrition for Medical Conditions

Animals with underlying conditions, such as kidney disease, may need a specialized diet to help them manage their illness.



Support Feeding Critical Care Patients

Animals in critical care are very sick and sometimes need help eating or getting enough nutrients. Special diets and feeding tubes may be used on these patients.



Assist in Weight Loss

If an animal is overweight or obese, a veterinary nutritionist can help customize a diet plan that helps the patient lose weight healthily while still getting all the nutrients they need.

All About Nutrients

All food contains nutrients, which help the body grow, function, and maintain good health.

Macronutrients make up a large portion of an animal's diet, whereas **micronutrients** are needed in smaller amounts but are still essential for many bodily functions. Below are the six main categories of nutrients all animals need.

Macronutrients



Proteins

Proteins are made up of amino acids and are used by cells all throughout the body. Most protein in pet food can be found in meat, fish, and other animal products, but can be found in plants as well.



Fats

Fats are made up of fatty acids and can be found in both meat products and in oils from seeds. Fats store a lot of energy and help the body absorb essential vitamins.



Carbohydrates

Carbohydrates provide the body with energy and can be found in plants such as grains and vegetables. The three types of carbohydrates include sugar, starch, and fiber.

Micronutrients



Vitamins

Vitamins are chemical compounds needed to keep the body running properly. Certain vitamins have specific jobs in the body and a deficiency in any vitamin can make an animal very sick.



Minerals

Minerals, like vitamins, are substances needed to keep the body running properly and also have specific jobs. Minerals, however, are inorganic, as they originally come from nonliving sources such as soil or rocks.



Water

Water, like food, is a necessary component in any animal's diet and can be found all throughout the body. Pet foods may contain different levels of moisture, with canned foods having more water than dried food.

Dietary Differences



Dogs

- Dogs are **omnivores** and can eat both meat and plants to survive.
- Dogs can produce their own taurine (an amino acid) and need less of it in their diets than cats.
- Dogs typically eat larger meals 1 -2 times a day and drink more water than cats.
- Dogs need more of the mineral calcium compared to their body size than people. For example, an adult human and a 55lb adult dog both need around 1250mg of calcium per day.



Cats

- Cats are **obligate carnivores** and need to eat meat to survive.
- Cats need taurine (an amino acid) in their diets or they can develop a heart condition.
- Cats typically eat smaller portions more frequently throughout the day than dogs. Cats also drink less water, so canned food or adding water to dry food is important.
- A cat's diet should be about 23-30% protein while humans only need around 12-20%.

Activities



PreK - 2nd Grade

Food Group Sorting Game

Materials: plastic food toys or real food, bowls, paper, markers, tape

- Teach your child about the different food groups with this fun sorting game!
- Label bowls with the following: Fruits, Vegetables, Grains, Protein, and Dairy
- Pick out some plastic food toys or real food in the house and have your child sort the food by placing each item in the appropriate bowl.
- For older children, you can divide each food group into more specific categories. For example, you might divide protein into meat, seafood, eggs, and legumes. To learn more about food groups, check out [MyPlate.gov](https://www.myplate.gov).



PreK - 5th Grade

Tasty Treats

Materials: varies based on pet

- Your child can get creative prepping some treats for the family pet!
- If you feed canned food to your dog or cat, you can chop it into bite sized pieces and mold it into some fun shapes! Lay on parchment paper and bake at 350°F for 30 minutes or until crispy. For dry food, check out this page for [Dog Treats](#) and for [Cat Treats](#).
- Don't have a pet? Your child can help feed the birds outside! String some Cheerios on a pipe cleaner or roll some bird seed onto a peanut butter-covered pinecone as a nice snack for your feathered friends.

Activities



9th - 12th Grade

Career Exploration: Veterinary Nutrition

Materials: computer/tablet/phone with internet access

- The field of veterinary medicine is huge and there are many job opportunities available to those interested in pursuing a career in the field.
- If your child is interested in a career in nutrition, encourage them to research the various job opportunities and programs that exist.
- Need a place to start? Check out this page about veterinary nutrition: <https://acvn.org/frequently-asked-questions/>

References:

<https://www.amcny.org/blog/2019/09/04/how-to-cook-for-your-pet-responsibly/>

<https://acvn.org/frequently-asked-questions/>

<https://www.healthline.com/health/food-nutrition/six-essential-nutrients>

https://www.nap.edu/resource/10668/cat_nutrition_final.pdf

https://www.nap.edu/resource/10668/dog_nutrition_final_fix.pdf

<https://www.petfoodinstitute.org/the-whole-bowl/cats-vs-dogs-5-differences-nutritional-needs/>

<https://www.who.int/elena/nutrient/en/>