



Adult Dog

HOW NUTRITION CAN HELP YOUR DOG THRIVE

Pet owners commonly ask their veterinarian “What should I feed my dog?” Like people, dogs have complex nutritional needs.



While you may find information about your dog’s nutritional requirements helpful for understanding what and how to feed your dog for a long, healthy life, you do not need to be an animal nutritionist. You need the right nutritionally complete and balanced dog food.

What should you feed your dog?

Your dog’s health depends on receiving an appropriate amount and balance of nutrients from six required groups: water, protein, fat, carbohydrates, minerals and vitamins. Commercial dog foods labeled as “complete” or “complete and balanced” have been carefully formulated so dogs receive the required nutrients — except for water — they need to thrive.

Here’s an overview of the essentials:

Water

Water is the most important nutrient that dogs require for survival. One of the most abundant substances found in the body, water plays a role in nearly every body function essential to life:

- Helps move nutrients into cells and remove waste products from cells
- Enables chemical reactions, including those that occur during digestion and metabolism
- Assists with air exchange in the lungs

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- Helps regulate body temperature by dispersing body heat
- Cushions and lubricates joints and organs

Like us, dogs lose water every day and this loss needs to be replenished. Since some dogs require more water than others, it is important to provide free access to fresh, clean water.

Protein

Dietary protein, which is made up of large combinations of 20 unique amino acids, helps maintain lean body mass (e.g., muscles and other body parts), supports a strong immune system, and promotes healthy skin and hair coat. Proteins also perform other important functions in the body:

- Provide structure to many tissues and organs, such as muscles, cartilage and skin
- Serve as enzymes that enable essential metabolic reactions
- Help transport compounds, including oxygen, through the bloodstream
- Help regulate the activity of cells or organs (e.g., insulin is a protein hormone)

No single protein ingredient provides all the amino acids dogs need in ideal proportions. But with careful combination of protein ingredients, nutritionists formulate dog foods in which amino acids in one protein source complement amino acids in another. The result is a dog food that provides the right balance and amounts of amino acids required by dogs.

Fat

The term “fat” includes a wide range of lipids, from fatty acids to triglycerides to cholesterol. Dietary fat is a concentrated source of energy, providing more than twice the number of calories (energy) per gram as protein and carbohydrates, and supplies essential fatty acids. Inside the body, fats or fatty acids play many important roles in addition to their role as an energy source:

- Serve as a key part of cell membranes, providing structure and helping nutrients and other substances move into and out of cells
- Transport fat-soluble vitamins into the body from the small intestine
- Protect the body from heat loss, injury, excessive water loss and invasion by bacteria and viruses
- Play a key role in nervous system structure and function
- Provide precursors for bile acids, which are important to fat digestion, and certain hormones and other cellular messengers

Commercial dog foods use many combinations of fat from animal and vegetable sources to provide the essential fatty acids dogs need. In addition to the functions listed above, fat increases food palatability (tastiness) and helps keep skin healthy and hair coat shiny.

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Carbohydrates

Although most dogs do not require carbohydrates in their food, dietary carbohydrates serve an important purpose — they are a readily available source of energy (calories). Most cells use glucose as their primary fuel, and a constant supply of glucose is necessary for the proper functioning of the brain. In addition, carbohydrates are used by the body in the creation of nonessential amino acids, vitamin C and many other compounds.

Dietary fiber, a complex carbohydrate that resists digestion in the small intestine, contributes to digestive tract health. Fiber helps:

- Promote increased numbers of beneficial intestinal bacteria
- Promote a healthy intestinal tract wall by collecting debris and sloughed cells
- Influence intestinal motility (e.g., stretching and contracting) and the time it takes for digested food to move through the digestive tract
- Contribute to feelings of fullness and satisfaction (satiety)
- Reduce the caloric density of food, which can be important for weight management

Vitamins

Vitamins are organic molecules required in tiny amounts for normal body activities. Since they typically are not made by the body in amounts to support normal function, vitamins must be obtained from food.

Vitamins have several important functions:

- Help release energy from carbohydrates, fat and protein
- Protect body tissues and other nutrients from free radical damage
- Serve as enzyme precursors or help enzymes work during DNA synthesis, normal bone growth and mineralization, calcium and phosphorus balance, and normal eye function
- Enable production of blood-clotting proteins
- Help maintain cell membrane structure

Minerals

Minerals are inorganic substances found in foods and body tissues and fluids. Although they make up less than 1% of the body, minerals are essential for metabolic processes such as movement of oxygen in the bloodstream, muscle contractions, nerve impulse transmission, bone formation and many more.

So, what should you feed your dog to help him or her thrive? Look for a dog food that is labeled as complete (or complete and balanced) from a reputable pet food company. That is your assurance that the food will provide all the nutrients, in the correct proportions, your canine companion needs in addition to fresh water. To truly thrive, your dog will also need plenty of exercise, mental stimulation, a safe place to rest and sleep, and veterinary care. And of course, quality time with and affection from you.

The Purina Institute aims to help put nutrition at the forefront of pet health discussions by providing user-friendly, science-based information that helps pets live longer, healthier lives.