

Old



Optimal Nutrition

05

PART FIVE

Dogs Rule

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6 PART SERIES

*YOUR BEST FRIEND is a little slower on his walks, but he still loves to play. He sleeps more and his joints ache a bit, but he is as happy as he was the day you first met. He has become a little grey in the face, but he never complains. He is a member of an elite crowd and you wouldn't have it any other way because you know ... **Old Dogs Rule.***

To help celebrate the joy senior dogs bring to our lives, we will be publishing a six-part series "Old Dogs Rule" (compliments of the Canine Health Foundation) which will cover many aspects of caring for senior dogs. We hope you will enjoy!

Optimal Nutrition for Senior Dogs Starts with Avoiding Obesity

A dog's whitening muzzle, graying coat and changing body condition combined with a noticeable decrease in his ability to see and hear are prominent signs of aging. Less obvious are the physiological changes that go along with growing older.

These physiological changes create a slowdown in a dog's energy needs. The good news is that by using a common-sense approach to an aging dog's changing nutritional needs, you can help offset many of the negative effects of old age. Although healthy aging starts with providing proper nutrition throughout a dog's life, it is never too late to begin feeding a diet to match a dog's individual nutritional needs.

"As a dog reaches his senior years, around age 7, a thorough nutritional assessment should be completed as part of a geriatric screening examination," advises Purina Research Scientist Dottie Laflamme, D.V.M., Ph.D., DACVN. "The nutritional profile of a dog's dietary intake, including any treats and table foods fed, should be compared against the dog's individual needs. Feeding to maintain ideal body condition despite the decrease in energy requirements that occurs with age has multiple health benefits."

From a dietary perspective, preventing obesity is the most important thing an owner can do to promote a dog's health and well-being. Not only is obesity a risk factor for osteoarthritis and other health conditions, it also contributes to shortened life span. In a 14-year Purina study, dogs fed to maintain lean body condition throughout their lives had a median life span of 1.8 years longer than their heavier,

paired littermates. Additionally, the age at which the lean-fed dogs were treated for certain health conditions was delayed compared to their littermates.

"Besides osteoarthritis, overweight dogs may be at greater risk for diseases such as diabetes mellitus, respiratory and cardiovascular disorders, and cancer," Dr. Laflamme says. "Obesity is an inflammatory condition that causes an increase in oxidative stress."

Senior dogs should be fed complete and balanced nutrition that contains an optimal blend of vitamins, minerals and other nutrients to help support their joints and other tissues. Dog foods with long-chain omega-3 polyunsaturated fatty acids, specifically EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) from fish oil, help to reduce inflammation such as that caused by obesity.

A dog's maintenance energy requirements (MER) decrease with age due to decreases in lean body mass and activity level. Neutering not only can reduce MER, it also can stimulate appetite. If energy intake, or food consumption, does not likewise decrease, a dog could become overweight or obese. Feeding table foods, treats and high-fat diets also can contribute to obesity.

Obese and overweight dogs should be fed weight-loss diets or low-calorie foods with an increased proportion of essential nutrients to calories. Feeding high-calorie foods may require an inappropriate reduction in the volume of food that could cause dogs to feel hungry and an inappropriate reduction of essential nutrients.

Dietary protein is important in weight-loss diets because it promotes lean body mass and muscle strength. Dietary fiber has a low digestibility



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and when combined with high protein provides enhanced satiety so a dog feels fuller. Older dogs need high protein to offset the detrimental effect of aging on protein turnover, the process in which the body catabolizes spent protein and makes new proteins needed by the body. Inadequate protein intake increases the rate of loss of lean body mass.

“Studies show that there is at least a 50 percent increase in the dietary protein requirement in elderly dogs,” says Joseph J. Wakshlag, D.V.M., Ph.D., DACVN, DACVSMR, associate professor at Cornell University College of Veterinary Medicine. “It is very important to feed higher protein diets to maintain lean body mass in muscle-wasted elderly dogs.”

A Purina study evaluated the effect of dietary protein in 8-year-old Pointers fed either a 16.5 percent or 45 percent protein diet over two years. The low-protein group lost about 6.2 percent of their lean body mass and showed an increased in fat mass. The Pointers on the 45 percent protein diet had a smaller change in lean body mass and only a 3.5 percent increase in fat mass.

“The goal for weight loss is to promote fat loss while minimizing the loss of lean body mass. This can be influenced by diet composition, especially protein,” Dr. Laflamme says. “Feeding a low-calorie diet with increased protein significantly increases fat loss and reduces the loss of lean body mass during weight loss. Besides preserving lean body mass, protein has a significant thermogenic effect so metabolic energy expenditure is increased in dogs fed high-protein diets. This results in a small but significant increase in total energy expenditure.”

Weight loss occurs when there is a negative energy balance. Feeding a low-calorie food with increased protein and nutrient-to-calorie ratio is best because it helps to minimize the loss of lean body mass. Feeding a senior dog an appropriate diet, managing meal portions and promoting increased activity all contribute to a negative energy balance and effective weight loss.

The amount of calories needed to induce weight loss varies among individual dogs due to differences in their MER and level of activity. In addition, MER decreases in response to caloric restriction and weight loss, thus it is important to regularly make adjustments in calorie allowance to maintain ongoing weight loss.

Monitoring a senior dog's weight and body condition helps to identify obesity sooner, so it can be managed more effectively. It is particularly important to assess body fat and muscle condition in an overweight or obese dog. A dog should have an hourglass shape when viewed from above, which equates to a score of 4 or 5 on a nine-point body condition score system.

Senior dogs that are overweight can have turnaround results when fed a proper diet that matches their nutritional needs. It's so important to remember that those needs vary based on breed, lifestyle, health and individual metabolism. Healthy aging for your senior dog begins with proper nutrition.



Photo by Mark Atwater

GRHRCH UH Moccasin Creeks Locomotive MH "Train", 2010
Owned by Lance and Cindy Wollmann

Key Nutrient Considerations

Senior dogs should be fed foods that contain:

- Complete and balanced nutrition
- A minimum of 25 percent protein from a good quality protein source
- Long-chain omega-3 polyunsaturated fatty acids with EPA and DHA from fish oil to reduce the inflammatory effects of obesity and being overweight
- Overweight and inactive dogs should be fed lower calorie foods with an increased nutrient-to-calorie ratio

Nutritional Myths about Disease Prevention

The notion that reducing the intake of certain nutrients or ingredients can help prevent health conditions often is unfounded, says Purina Research Scientist Dottie P. Laflamme, D.V.M., Ph.D., DACVN.

“Owners sometimes believe that reducing protein will prevent kidney disease or feeding dogs fewer carbohydrates will prevent diabetes,” Dr. Laflamme says. “Some people believe reducing grains will prevent allergies. None of these are true. The one way that a diet can help promote a healthier life span is to simply feed it appropriately to avoid excess body weight.”



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