

## Daily Feeding Time and Frequency for the Highly Active Dog

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So when do you feed your dog during the day over the course of the hunting or performance season, and how many times a day do you feed? There are some concepts to consider in structuring a feeding strategy for your hardworking dog and we will discuss why they work. Some things to consider include, the optimal time to feed, how often to feed daily.

There is a variety of information that indicates feeding a hardworking dog is optimal when the food is provided after hunting or training for the day, and not before. Did you know that it takes 20-24 hours for your dog's meal to be completely digested and eliminated as a bowel movement? Nutrition studies have revealed that a dog's endurance performance can be as much as doubled when on an empty stomach compared to having eaten 4 or less hours before exercising. There is also scientific evidence from dog nutrition studies that feeding 17 or more hours before exercise results in a much greater use of fat as energy, this is compared to feeding 6 hours before exercise, which results in a much greater use of carbohydrates for energy generation. You might be asking, why is this important? Exercise metabolism for a hardworking dog is best when fat is used for producing energy for muscles. This is because fat is best energy source for promoting and supporting endurance exercise, which is exactly what most hardworking dogs require for optimal performance. For any sportsman or pet owner reading this article that has dogs that tend to sprint more often than quarter a field, this applies to you and your dog as well. Why? Because nutrition studies with greyhounds have even indicated that high fat diets, which promote fat metabolism for energy, result in faster run times than strictly high carbohydrate diets. Even though all the reasons for this are not well understood, it minimally demonstrates that fat metabolism is very important for short duration/high intensity, as well as long duration/moderate intensity, exercise in dogs.

Based on this information, it is recommended that intensely exercising dogs be fed approximately 24 hours before an intense exercise bout to help alleviate problems associated with a full colon. This can include bloody stool, believed to be associated with irritation of the intestinal lining by movement of fecal material in the large bowel because of intense exercise. If the sporting activity is a multiple day event, then likely it will not be realistic to wait 24 hours before the next exercise bout. Therefore, most dogs should be fed 30-60 minutes after exercise or hard work is complete for the day so that they have the maximum amount of time to digest the meal before the next day's exercise bout. Immediately after the dog stops working or hunting, it is best to focus on allowing the breathing rate to slow or generally return to normal, and provide fresh water in for rehydrating. Just be sure that the dog doesn't over-consume the drinking water all at once, as vomiting could occur.

As a final topic for consideration, daily feeding frequency can help as well. Consistent with feeding your hunting dog after a day's training or hunting is complete, as well as providing as much time for digestion, also leads to the suggestion that feeding once daily is more optimal than feeding twice daily. Healthy adult dogs, unlike people, don't get hypoglycemic (low blood sugar) with short or multiple days of food deprivation, even when exercising, as they rely much more significantly on fat metabolism. Of course,

feeding once daily would be considered optimal for performance of a hardworking dog, but this may not be feasible in some situations or for some dogs.

If very large quantities are required daily to maintain an ideal body condition, like 7-8 cups for a 50-60 lb dog, it would be recommended to consult your veterinarian to devise a custom feeding strategy for your dog's particular needs. This scenario can be typical of young adult dogs housed outdoors in cool to cold temperatures, particularly when they exhibit very active kennel behaviors, and are trained/hunted multiple times a week. If you are feeding this large quantity of food on a maintenance formula, this is a good example of a need to switch to a performance food. Feeding 7-8 cups a day would also be a situation where feeding twice daily may be required, however feeding the bulk (~75%) of the food immediately after exercise, then the balance 4-6 hours later. Alternative options to consider would be to increase the caloric density and/or feed a food with higher digestibility as a strategy for reducing the amount needed to deliver adequate calories. Again, if you find yourself in this scenario with a high octane dog, consult your veterinarian to work out a custom strategy to ensure adequate nutrient balance and feeding, as each extreme situation will require some customization.

Our hardworking dogs are nothing less than elite athletes in every way. We expect high performance when they are afield and we train them for success, so it is important that we consider how providing the best nutrition and feeding strategies support our canine athlete. This is critical to complement the training and breeding of your pet. Taken together, all these suggestions can contribute each in simple ways to develop an optimal feeding program for your hardworking dog. Good luck.