

Hunting Dogs

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Feeding Right

Choosing what to feed and how to feed your hunting dog should be an educated decision, not one based on emotion or conventional wisdom. By feeding your dog a top-quality, balanced diet, you and your dog will enjoy better days afield, and your dog will live a healthier, happier and more active life. Dogs require a balanced combination of digestible meats, cereals and vegetables to maintain health. We hear the term “balanced diet” all the time, but what does that really mean when it comes to our dogs?

Owners need to provide their dogs with the right balance of six major groups of nutrients to help ensure that they enjoy a healthy active life for as long as possible. These six major groups are water, proteins, fats & oils, vitamins, minerals and carbohydrates. There are 37 essential nutrients that a dog has to garner from its food, according to researchers at Purina. All good-quality, complete dog foods are formulated to provide dogs with the proper balance of all of the nutrients they need. Today’s top-tier dog foods are superior to those of the past, and the home cook could not hope to match the complete and balanced nutritional value that they provide. Which is why if you feed a quality dog food manufactured by a reputable company, supplementing it with human food is purely an emotional decision, not an educated one. Adding table scraps, for example, can alter the well-tuned nutritional balance and may lead to serious health problems for the dog.

Following are the six major groups of nutrients our dogs require and how they are affected by them.

- Water is the most important of the six nutrients for most animals. The quantity of water a dog requires will vary based on environmental factors such as temperature, humidity level, exercise level and whether the dog is eating dry or wet food. Water is the thermostat that regulates the dog’s core body temperature and transports nutrients to the various parts of the body. It is critical to keep a dog well hydrated. If a dog loses just 15 percent of its water volume, it can die. It is imperative to ensure that a dog has access to clean drinkable water.

- Proteins made from essential amino acids are the building blocks of the body. A complete and nutritionally balanced dog food will have all of the required amino acids. Very little of the protein intake is converted to energy. Proteins are used to form healthy muscle, body organs, hair and skin and are an integral part of the immune system. Additionally, proteins ensure the transportation of oxygen in the body. A diet lacking proper levels of protein can equate to poor growth, lack of muscle, poor coat condition and higher risks of infection resulting from decreased immunity.

- Fats are the fuel that enables the dog to stay active. Too much fat in a dog's diet can result in obesity, and the accompanying side effects can lead to premature aging and death. Not enough fat in a dog's diet can lead to a lack of stamina, poor coat condition and reproductive problems. Fats supply more than double the energy supplied by proteins and carbohydrates, and top-tier dog foods incorporate quality digestible fats in their recipes. The rule of thumb is that quality in means quality out. Good fats and essential fatty acids such as omega-3 and 6 provide healthy skin and coats as well as protect vital internal organs.

- Carbohydrates, though not as potent as fats in providing fuel, provide a readily accessible energy source. Carbohydrates are not an essential ingredient in a dog's diet, but they aid in maintaining a healthy gastrointestinal tract by promoting the growth of good bacteria. Too many carbohydrates will exacerbate the propensity for obesity.

- Vitamins fall into two groups: water soluble and fat soluble. Water-soluble vitamins such as B complex and C dissolve easily in water and are excreted in the urine and must be consistently replenished; fat-soluble vitamins are stored in the fatty tissues. Vitamins are part of almost every chemical reaction for the metabolism of fats, proteins and carbohydrates and are necessary to maintain normal vision, healthy coats, healing of wounds and proper functioning of the nervous system.

- Minerals in balanced proportions must be provided through the diet to build healthy bones and teeth. Minerals such as phosphorous and calcium are crucial to proper development of growing puppies. Magnesium, potassium, zinc, copper, iron, chloride and sodium are examples of minerals that are important to normal body function and must be carefully balanced.

When evaluating dog foods, search for those that are labeled “complete.” I feed my dogs dry, kibbled dog food for a number of reasons. The crunchy texture aids in maintaining healthy teeth. Dry food is more concentrated with nutrients, so each feeding requires a smaller serving size to provide the dog with its nutritional needs. Moist or wet foods should not be fed if they have been left open, even in the refrigerator, for more than 24 hours or if left unrefrigerated for more than one hour. **[what about a quick thought on safe storage of dry foods and signs of spoilage or nutritional drop?]**

I asked Ryan McCollum—a vet whose primary clients are military and law-enforcement canine units—for his best advice on feeding schedules. McCollum works mostly with Malinois (Belgian shepherds), and concern for bloat—technically, gastric dilatation and volvulus, or GDV—in working Malinois and shepherd breeds in general is higher than in some others.

“While the choice of diet is important for working dogs,” McCollum wrote, “feeding schedule is also important. I recommend feeding dogs at least four to six hours prior to working. This allows the dog to work at a cooler body temperature, which will increase the intensity and length of time they are able to work. Given the breeds we commonly use, allowing four to six hours from feeding until work, plus multiple small feedings helps reduce the incidence of GDV.”

Bob Reynolds campaigns German short-haired pointers successfully on the field-trial circuit and has won the GSP National Championships and produced multiple field champions. He also is a practicing veterinarian. I asked Reynolds for his thoughts on feeding schedules and GDV.

“The cause of gastric dilatation and volvulus is still unknown,” he said. “GDV usually occurs in large-breed dogs that eat and drink rapidly and then exercise. Other risk factors include narrow- and deep-chested breeds, stress, fearful temperaments and ingesting large volumes of food. Careful feeding of these animals can help prevent gastric dilation in some individuals. Here are four recommendations: Divide feedings into several smaller feedings; do not use feeds that have oil or fat listed as one of the first four ingredients; do not elevate the food bowl during feeding; and restrict exercise before and after feeding.”

Not all dogs are prone to GDV; however it is advisable not to feed dogs within at least four hours **[prior to?]** of exercise. At least two hours should follow exercise before feeding. **[to be clear: Wait two hours after exercise before feeding.]** In addition to perhaps increasing the risk of GDV, ingestion of food prior to exercise dehydrates the dog, raises the body temperature and can create intestinal discomfort. There is no advantage to feeding the hunting dog prior to the hunt—only disadvantages. I feed adult dogs once a day in the evening. **[What about supplements (glucose?) for energy during the course of the hunt? And of course always supply plenty of water. Would you recommend any type of water additive?]**

I asked Reynolds for tips on proper feeding. “I encourage clients to become familiar with body-condition scoring,” he said. “This scale gives them criteria for keeping their dogs in an ideal weight range. I encourage them to measure the food with an eight-ounce cup so that an accurate amount can be fed daily.

“Athletic dogs do best on foods with high protein/fat ratios rather than foods high in carbohydrates. **[to be clear: is that “high protein-to-fat ratios” or “high protein and fat ratios”? What’s an example of good vs. bad in the ingredient list?]** By being aware of the ideal body score, gradual adjustments by one-quarter to one-half cup can be made on weekly intervals as increases in physical training dictate.

“I recommend feeding adult dogs once daily at a time when they can be observed for a while for any signs of indigestion or bloating after their meal. Additionally, do not feed for two hours after exercise, do not feed a dehydrated animal before he has a chance to be rehydrated, and do not exercise a dog for four hours after eating.

“Dogs that are in the ideal weight range live longer and have less incidence of diabetes, arthritis and other associated signs of aging than those dogs that are allowed to eat to the point of obesity.”

The body-condition scoring that Reynolds refers to can be found online by entering “canine body condition score” into your preferred search engine. In addition, Purina’s Website has a chart showing body-condition score that provides a visual reference of ideal weight.

Dr. Brian Zanghi is a research scientist in the Molecular Biology Group at the Nestlé Research Center, in St. Louis. Zanghi joined Purina in 2005 and maintains a research

program in molecular nutrition and cellular nutrition focused on gut health, aging and physical performance. I asked him to comment on feeding schedules, GVD, recommended fat and protein levels, feeding wet, and probiotics.

“Optimally, typical feeding for hardworking dogs should be once a day and offered after exercise for the day,” Zanghi said. “Ideally this should be no sooner than 30 minutes after exercise to let the dog’s breathing and heart rate recover. Rehydration is best immediately after exercise, along with periodic hydration during the exercise. Feeding once a day should also be cautioned if the feeding amount is particularly high to retain body weight for a really hard-working dog. (For example, if a 60-pound dog needs six to eight cups a day in a situation where it is hunting/working almost every day for several hours a day). In this case a customized strategy is required, with the majority of food fed after work but a second smaller portion a few hours after the main meal.”

Regarding torsion [??] **{This is a Dr. Zanghi quote so if we add to his quote we need to indicate it is my explanation.**

Torsion is the twisting of the gut.}, bloat and GVD: “This question is not answered so simply, or the veterinary community would know what triggers it and how to avoid it. It is multifactorial, and it is still unclear why it happens. Some or all of many factors can put a dog at higher risk, and these include a genetic predisposed link, deep-chested body structure, eating before exercise, eating from a raised food bowl, eating large meals, dogs that gulp their food or eat very rapidly, and dogs fed a high-fat diet, though this is likely related to exercise and possibly eating before exercise.”

Regarding fat and protein: “A typical performance formula with 20-percent fat is ideal for most hard-working dogs. A performance formula is optimal with 30-percent protein.

A 30/20 [protein/fat?]

Same > 30% protein/20% fat} performance food should be fed all year to optimize a hunting dog’s metabolism. This keeps the muscles metabolically conditioned to allow pre-season physical conditioning and endurance to be optimized and ramped up quicker. For owners who only work their dogs during the hunting season, always reduce portion size to accommodate a lower activity level in the spring and

summer, as appropriate to keep the dog in good body condition. A dog's activity level and food amount at the end of hunting season will undoubtedly be greater than during the off-season."

Regarding probiotics: "Not all probiotics are created equal, and different *favorable* bacteria have different benefits to pets and people. Probiotics with gut-stress protective properties are best used to minimize risk or severity of gut upset or diarrhea if and when the dog is exposed to some type of pathogen or travel stress. For hunting dogs there are several scenarios to consider. Optimally, a probiotic like Fortiflora would be added to the food throughout the entire hunting season for maximum protection. Alternatively, in preparation for a weekend or longer hunting trip, Fortiflora would best be added at least five days prior, during the trip and hunt, and up to three to four days after."

Genetics, training and nutrition are the keys to great dogwork. No matter how impressive the pedigree and how solid the training program, if the dog is not fed a quality diet on a proper schedule, performance and health will suffer.

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