

PROTEIN IN THE CANINE DIET

Feeding the right canine food is the subject of much debate. Viewpoints will continue to be discussed and changed over time. A review of current research spells out the evolutionary need for canines to have sources of high quality protein for optimal health. The best sources of protein are those such as found in animal tissues. Meat, organ tissue such as liver, kidneys, spleen, heart are very rich in the complex molecules called amino acids that end up as protein. There are 22 amino acids involved with the dog's metabolism and of these the dog requires 10 different amino acids to be supplied by the diet. The other 12 required amino acids can be manufactured by the dogs liver.

Dogs need meat! Nature has created a meat-eating machine in the dog and evidence points to the health benefits displayed by the feeding of meat based diets. Dogs can and do assimilate grains such as corn, oats, soybean meal but grains provide mostly carbohydrates and only limited amino acids. Too much carbohydrate prompts internal enzymes to store those additional carbohydrates as fat. Give dogs extra protein and it is excreted through the kidneys and not stored as fat. Animal derived tissues are more easily digestible and have a more complete array of amino acids than do grains. Research shows that dogs have a high capacity for digestion and utilizing diets containing more than 30 % protein on a dry weight basis. Meat, such as chicken, poultry, beef or fish should be the first ingredients listed on any dog food you judge to be good for your dog.

Another aspect to be considered in the diet relationship is the pregnant dog. A whelping bitch by any definition should be considered an athlete and deserves the attention that your star player would get. Think of a human athlete in training and consuming a diet of processed food twice a day. Imagine that the food is cooked for 3 days then baked into small chunks, with supplements added in after this process. With this diet would you expect this athlete to *deliver* her best performance? Would this diet sustain and maintain the required strength, stamina and endurance needed for the player to compete under stress at her best ability. The main diet available for whelping mothers is processed food, which can destroy amino acids, enzymes and many vitamins and minerals. High fiber, starchy diets are harder to digest compared to the ease of digesting animal proteins and fats. Since digestion takes up most of the energy in any living being, less time spent with digestion means more energy being spent on a dog's ability to bear pups.

An important goal of the kennel owner is to provide the whelping mother with a food that supplies sufficient calories from other sources to allow minimal protein usage for tissue repair, hormone production and other crucial functions of birthing. Optimal dietary energy nutrient distribution is different for whelping mothers and feeding higher fat and protein diets during pregnancy helps to alter the dog's metabolism so that it better utilizes its fat and protein. Protein is also important to help decrease the risk of anemia. Lower levels of protein show higher levels of injuries, decreased oxygen uptake and fewer red blood cells than dogs fed higher percentages of proteins. The birthing process places excess demands upon the body which results in tissue disruption and occasionally tissue damage. These tissues must be remodeled and repaired which can result in an increased protein demand. This demand can be met by increased protein ingestion. Protein can also be used for an energy source while fat is an energy enhancer providing increased caloric intake and helping to maintain stable energy levels.

In the end, diet and energy needs for dogs call for high quality bioavailable protein as a key component to increased stamina, endurance and health.