



For Active Dogs!

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Coaching dog enthusiasts to embrace the unique needs of active dogs through teaching, mentoring and educational media

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Smart Supplementation



There are thousands of canine supplements out there, and they are all vying for your attention (and your money). Their ads show action photos of world-class canine athletes with words that suggest that their supplement will magically provide your dog with health, vitality, longevity and peak performance.

If you are reading this newsletter, you know that's just not true. But should you provide your dog with supplements? And if so, which ones, how much, how often? Let's look at the scientific evidence.

Supplement Suggestions

1) Providing a supplement means that you believe that your dog is not getting sufficient amounts of that component in its diet. Vitamins and minerals in their natural forms often have

better bioavailability and retention in tissues than their synthetic counterparts (1) so be sure that at least part of your dog's diet consists of fresh (unprocessed) food.

- 2) Ask yourself: What is the scientific evidence that my dog should be getting this supplement? See list of recommended supplements and the scientific evidence below.
- 3) Many supplements have a mixture of components so that the manufacturer can claim their supplement as unique. Do you really need all of those additives?
- 4) Stack the deck in your favor – only buy supplements from manufacturers that: (a) provide data on all of the supplement's nutrients and micronutrients in the packaging, and (b) are established and have a reputation to uphold.
- 5) Purchase supplements designed for and tested in dogs. Supplements designed for humans might not have the same bioavailability as those for dogs and some might even have ingredients, such as xylitol, that are unsafe or even fatal for dogs.

Recommended Supplements for Active Dogs (and the Evidence)

Joint-Protective Nutraceuticals – A dose of about 20 mg/lb of glucosamine per day is recommended. Products designed for dogs include Dasuquin Advanced, Glycoflex II or III. Natural sources of glucosamine include trachea (1 oz =~ 1400 mg) and chicken feet (one foot =~ 400 mg).

The Evidence: A 2018 meta-analysis of publications on a variety of dietary supplements for osteoarthritis in humans suggested **improvement of pain and function** with glucoasamine, chondroitin, MSM and avocado soybean unsaponifiables, although they stated that there was also a need for more higher quality evidence (2).

Omega-3 Fatty Acids – The recommended dose is 15 mg/lb of DHA. Make sure the source is tested for heavy metals. Good sources include Grizzly Salmon Oil as well as Nordic Naturals, but there are others as well.

The Evidence: Two 2016 metastudies concluded that there is **evidence for the systemic anti-inflammatory effects** of omega-3 fatty acid supplementation (3, 4).

Probiotic supplement designed for dogs – Two good sources are Geneflora and VisBiome (aka VSL-3).

The Evidence: Probiotics can **reduce the severity of canine allergies**, improve inflammatory bowel disease, and boost responses to vaccines (5, 6, 7).

Antioxidants – Antioxidants are most effective if fed in their native form. Blueberries are very high in antioxidants, and an easy way to provide them is by purchasing freeze-dried blueberries. Give about 10 blueberries for a small dog, 20 for a medium dog and 30 for a large dog once a day in their food. Available at Amazon.

The Evidence: Two studies show that diets containing **antioxidants improved cognitive function** in old dogs (8, 9), so why not provide antioxidants to all dogs that need optimum cognitive function?

Amino acids – Many dog foods, particularly dried foods provide the vast majority of their amino acids from plant sources, since these are cheaper. **Dogs need certain essential amino acids and other nutrients that can only come from animal sources.** A supplement called ProBalance by AVN is recommended to ensure that your dog is receiving an abundance of the correct, animal-sourced amino acids. This supplement has been designed by an independent, board-certified veterinary canine nutritionist to supply all of the essential, animal-sourced amino acids and building blocks for important nutrients, like taurine, that often are lacking in commercial dog food and homemade diets.

References: (Full articles available [here](#)):

1. Effect of micellized natural (D- α -tocopherol) vs. synthetic (DL- α -tocopheryl acetate) vitamin E supplementation given to turkeys on oxidative status and breast meat quality characteristics.
2. Dietary supplements for treating osteoarthritis: a systematic review and meta-analysis.
3. Nutrition and Inflammation in Older Individuals: Focus on Vitamin D, n-3 Polyunsaturated Fatty Acids and Whey Proteins.
4. Effect of Marine-Derived n-3 Polyunsaturated Fatty Acids on Major Eicosanoids: A Systematic Review and Meta-Analysis from 18 Randomized Controlled Trials.
5. Atopic dermatitis and the intestinal microbiota in humans and dogs.
6. Supplementation of food with *Enterococcus faecium* (SF68) stimulates immune functions in young dogs.
7. Comparison of microbiological, histological, and immunomodulatory parameters in response to treatment with either combination therapy with prednisone and metronidazole or probiotic VSL#3 strains in dogs with idiopathic inflammatory bowel disease.
8. Cognitive enhancement in old dogs from dietary supplementation with a nutrient blend containing arginine, antioxidants, B vitamins and fish oil.
9. Strategies for improving cognition with aging: insights from a longitudinal study of antioxidant and behavioral enrichment in canines.