## Treats \& Supplements

## SUPPLEMENTS FOR DOGS AND CATS

## Pet supplements are increasingly popular as owners become more aware of the potential benefits.



Pet owners are more invested in their pets' health than ever before. These owners are increasingly interested in supplements to help support their pets' overall health and wellness and to provide additional nutritional support for certain health issues.

Healthy dogs and cats that eat a complete and balanced commercial pet food appropriate for their life stage do not need a supplement to meet their nutritional requirements. However, individual dogs and cats may benefit from essential fatty acids, fiber, vitamins, or minerals in addition to what is present in their food or from administration of functional ingredients not found in their food. In these cases, one or more supplements can be used to provide more personalized nutrition.

Supplements commonly used in veterinary medicine include glucosamine and chondroitin sulfate, fish oil or omega-3 fatty acids, omega-6 fatty acids, fiber, amino acids or their derivatives (e.g., S-adenosyl-methionine [SAMe], taurine), probiotics and synbiotics, zinc, and vitamins (e.g., B12, E). Pets at risk for or exhibiting signs of certain health conditions may benefit from these supplements.

## Key Messages

$\square$ Healthy dogs and cats fed a complete and balanced commercial diet appropriate for their life stage typically receive $100 \%$ of their daily nutrient requirements from food.
$\square$ Since individual dogs and cats can have unique nutritional needs for optimal health, some pets may require more of some nutrients than what is present in their food or may benefit from a functional ingredient that is not present in the diet. These pets may benefit from a supplement.
$\square$ Some owners may wish to provide supplements to their pet as part of a proactive health management strategy.
■ Glucosamine and chondroitin sulfate, which are building blocks of joint cartilage, may benefit pets by supporting joint health and mobility and by possibly slowing cartilage deterioration. ${ }^{1}$

■ The omega-3 fatty acids (eicosapentaenoic acid [EPA] and docosahexaenoic acid [DHA]) found in fish oil reduce mediators of inflammation and in turn may help promote mobility. ${ }^{2}$ Fish oil supplementation also may help reduce pruritus, self-trauma, and alopecia in dogs with skin conditions. ${ }^{3}$

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■ Omega-6 fatty acids (linoleic acid and gamma-linolenic acid [GLA])-found in plant sources such as safflower, sunflower, borage, corn, and soy-play an important role in skin health. Linoleic acid, which is incorporated into skin lipids, helps maintain the skin's epidermal water barrier integrity and supports a healthy coat. ${ }^{4}$

■ Some probiotic strains benefit pets with diarrhea, and some can promote a healthy immune system. Synbiotics can help maintain a healthy microbiome.
$\square$ It is important to recommend probiotic products from reputable companies that have evidence to show the safety and stability of their products.

■ All probiotics are not alike, so it is important to choose a specific probiotic strain (not just species) shown to provide the desired benefits.

- A probiotic strain that has been studied in the target species should be recommended. Using human probiotics may have no effect and likely lack safety data in dogs and cats.

■ S-adenosyl-methionine is derived from the essential amino acid methionine. As a precursor of glutathione, an antioxidant that occurs naturally in the body, S-adenosyl-methionine is often used to help support liver health in dogs and cats. ${ }^{5}$

- Cats and dogs with chronic enteropathies are often supplemented with cobalamin, or vitamin B12, since they may experience a cobalamin deficiency due to intestinal malabsorption. A B-complex vitamin supplement also may benefit dogs and cats with some skin conditions. ${ }^{6,7}$

■ Vitamin E, a key antioxidant, may be supplemented during severe hepatic lipidosis in cats, copper-associated hepatopathy in dogs, chronic kidney disease, and some skin conditions, especially those managed with omega-3 fatty acids.

■ Zinc, an essential mineral, is particularly important in the skin. Constant shedding results in high cell turnover, and zinc is an essential cofactor for enzymes associated with cell proliferation, tissue growth and repair, and collagen formation. ${ }^{4}$

■ Given growing client interest in pet supplement use combined with a wealth of available products, it is important to include a question about supplement use in the diet history, proactively counsel clients about the proper use of supplements, and recommend trustworthy veterinary supplement manufacturers.

> The Purina Institute aims to help put nutrition at the forefront of pet health discussions by providing user-friendly, science-based information that helps pets live longer, healthier lives.

## References

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