Ignore the Bad Rap – This Helps Heal Many Pet Disorders

Multiple clinical studies show this is helpful for 5 major clinical conditions in particular - heart disorders, brain health, inflammatory skin disease, kidney disease, and osteoarthritis. So ignore the bad rap - you and your pet will both love the benefits she gets from this amazing nutrient.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Essential fatty acids, especially the omega-3s, play a significant role in your pet's health
- Clinical studies show that omega-3s are helpful in treating many disorders in dogs and cats, including heart and kidney disease, inflammatory skin conditions, arthritis, and cognitive function
- The best way to insure your pet is getting sufficient omega-3 fatty acids is through a balanced, fresh, species-appropriate diet and supplementation with a marine-sourced oil such as krill oil

Editor's Note: This article is a reprint. It was originally published June 11, 2015.

Dietary fat has received a bad rap because certain types have been linked to heart disease and stroke in humans. However, fat is an absolutely crucial component of species-appropriate nutrition for dogs and cats.

Knowledgeable pet guardians understand that the bodies of dogs and cats are designed to use and process dietary fat differently than the human body does. Pets naturally have more good cholesterol (HDL) than bad (LDL). A dog or cat won't develop high blood cholesterol or thickening of the arteries from fat in the diet.

Dietary fat provides a concentrated energy source for pets. It is a constituent of cell membranes and helps transport nutrients across the cell membrane.

Dietary fats also produce metabolites that help control inflammation, and contribute to the formation of certain hormones including estrogen, testosterone, and progesterone. Fats contribute to the production of bile acids that aid in digestion and absorption of nutrients. They also act as a mechanical barrier, insulating your pet's body against heat loss, protecting internal organs, and preventing excess water loss.

Benefits of Essential Fatty Acids for Your Pet

There are two types of dietary fats: facilitative and functional. Facilitative fats are saturated fats. They are found in relatively large amounts in the diets of cats and dogs, and aren't considered to be detrimental to a pet's health except in the case of obese animals fed diets high in both fat and calories.

Functional fats are usually, but not always, essential fatty acids (EFAs). These fats are called "essential" because they are a vital part of your pet's diet, but he can't produce them on his own. EFAs are known more commonly as omega-6 fats and omega-3 fats. Your pet needs a balance of both for good health, but it's the omega-3s that are proving to be incredibly beneficial in treating a wide variety of health conditions.

Omega-3 fatty acids include alpha-linolenic acid (ALA), docosahexaenoic acid (DHA), and eicosapentaenoic acid (EPA). Omega-3s play a role in your pet's overall health in many ways, among them:

- Alleviating the harmful effects of allergies and other conditions that result from an over reactive immune system response
- Slowing the growth of common yeast infections
- Aiding proper development of the retina and visual cortex
- Regulating blood-clotting activity
- Slowing the development and spread of certain pet cancers

Along with these benefits, multiple clinical studies show that omega-3s are helpful for five clinical conditions in particular: cardiovascular disorders, cognitive function and neurological health, inflammatory skin disease, kidney disease, and osteoarthritis.

Cardiovascular Disorders

In a 1998 study of dogs with dilated cardiomyopathy (DCM), omega-3 supplementation reduced production of inflammatory cytokines (interleukin-1 and prostaglandin-E2), and it also reduced muscle loss compared with a placebo.[1] The decreased production of inflammatory cytokines is also thought to improve appetites in animals with heart failure.

In a retrospective study of 108 dogs with DCM or chronic valvular disease, results showed improved survival rates with omega-3 fatty acid supplementation.[2] In addition to improved heart function (including reduced heart rate and blood pressure), omega-3 supplementation also reduced inflammation and improved the dogs' appetite and maintenance of lean body mass.

Cognitive Function and Neurological Health

A study published in 2012 in the Journal of the American Veterinary Medical Association suggests that feeding weaned puppies foods high in DHA improves several aspects of their development. The researchers found that diets rich in DHA and other nutrients known to support neurocognitive development improved cognitive, memory, psychomotor, immunologic, and retinal functions in growing dogs.[3]

The puppies fed diets containing the highest levels of DHA showed significantly better results in reversal learning tasks, visual contrast discrimination, and early psychomotor performance than puppies eating low to moderate amounts of DHA. Interestingly, those puppies also had significantly higher rabies antibody titers one and two weeks after vaccination, and an improved ability to see in low-light or dark conditions.

Inflammatory Skin Disorders

Back in 1994, a study of 16 dogs given omega-3 fatty acids that included high levels of EPA showed improvement in itchiness, self-trauma, coat character, and hair loss compared with administration of ALA alone.[4] The dogs in the study had symptoms of idiopathic pruritus (unexplained itchy skin), confirmed atopy (inflamed skin due to allergies) and/or flea allergy.

Fast-forward 20 years to 2014, to a study out of Munich, Germany that evaluated a spot-on formulation of essential fatty acids and essential oils on 48 dogs with canine atopic dermatitis.[5]

The results of the study showed that individual improvements in lesion and itchiness scores were significantly higher for dogs that received the EFAs and essential oils vs. the control group, and more of those dogs also showed a 50% or greater improvement in itchiness.

Kidney Disease

In a study of dogs with experimentally induced chronic kidney disease (CKD), researchers demonstrated that supplementation with omega-6 fatty acids accelerates the decline of kidney function, while omega-3s do the opposite.[6]

A retrospective study of 146 cats with chronic kidney disease showed a survival time of 16 months for those on a diet supplemented with EPA, compared with 7 months for the control group. The cats receiving the highest amounts of dietary EPA had the longest survival times.[7]

Osteoarthritis

A study from the Netherlands published in 2012 in the Journal of Animal Physiology and Animal Nutrition suggests that cats with naturally occurring osteoarthritis (OA) show symptom improvement when their diets are supplemented with omega-3 fatty acids.[8]

Sixteen arthritic cats were involved in a 10-week study in which some received a fish oil supplement containing both EPA and DHA, while others received a corn oil supplement with no EPA or DHA. According to their owners, the cats receiving fish oil had less stiffness, higher activity levels, more stair climbing, higher jumping ability, and more interaction with family members than the cats who received corn oil.

A Canadian study published around the same time indicates that omega-3s are equally beneficial for dogs with naturally occurring OA.[9] The dogs were fed a diet containing high levels of omega-3 fatty acids from fish, and showed significant improvement in locomotor disability and performance of daily activities.

In another study, cats with degenerative joint disease (DJD) fed a diet high in EPA and DHA, plus green-lipped mussel extract and glucosamine chondroitin sulfate, showed improved measurements of mobility.[10]

The Best Way to Supplement Your Pet's Diet With Omega-3 Fatty Acids

Both omega-6 and omega-3 fats are very vulnerable to damage from heat. So even if these fats were once present in your pet's commercial food (as per the ingredients label), they quite likely lost their bioavailability during the kibbling or canning process. It's one of many reasons why a balanced homemade, species-appropriate diet is ideal for your cat or dog.

Omega-3s are also very sensitive to oxygen and can become rancid quickly, so I prefer oils dispensed from an airless pump or that are in capsules that can be cut and squeezed onto food just prior to feeding. My last choice is to buy "pour on" oils, because there is a far greater risk of oxidation over time. If you do purchase a bottle of pourable EFAs, make sure you refrigerate them after opening and try to use up the bottle within 30 days.

As a general rule, omega-6 deficiencies are rare in dogs and cats because commercial pet food diets typically provide too much rather than too little of these fats. If you should have a need to supplement omega-6 fats in your pet's diet (which is unlikely), plant oils like flaxseed, hemp and pumpkin seeds are good sources.

Krill oil is the supplement I recommend to insure your dog or cat is getting enough omega-3 fats in his diet. Dogs and cats cannot efficiently convert plant sources of omega-3 fatty acids (from flaxseed oil, for example) into appropriate amounts of DHA and EPA, so the best option is to provide one in its already-bioavailable form from marine oils.

Remember to make sure your fish oil is sustainably harvested, or **MSC approved**, and comes from nontoxic fish (the smaller the better, hence my recommendation for krill oil). Also remember cod liver oil is a rich source of vitamins A and D, but is not an abundant source of EFAs.

It's important to seek the advice of a holistic veterinarian to determine how to best supplement your dog's or cat's diet with the fatty acids he needs for good health and to treat any specific health conditions he may have. I recommend adding EFAs to your pet's food at mealtime to ensure freshness.

Sources and References

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