The Health Benefits of Essential Fatty Acids

What are Essential Fatty Acids?

Fatty acids are classed as 'essential' if they can't be produced in the body, so animals have to obtain them through their diet. Essential fatty acids (EFAs) fall into two categories, omega 3 and omega 6.

While these two types of fatty acids are relatively similar on a chemical level, they have quite distinct effects in the body. Omega 6 fatty acids tend to favour pro-inflammatory pathways, while omega 3s have anti-inflammatory effects. This means it's important to maintain a healthy balance between them.

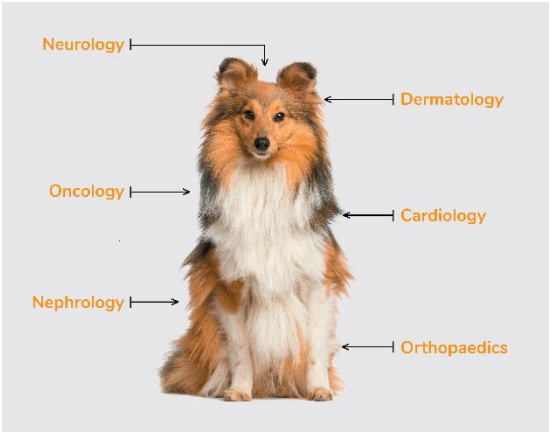
What should I supplement?

In general, both human and pet diets tend to be rich in omega 6, but relatively low in omega 3 fatty acids. Therefore, when considering EFA supplementation for pets, there's an argument for just giving omega 3. Of the omega 3s, there's most evidence for the health benefits of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) in dogs and cats.[1-5]

A good supplement should also contain an antioxidant, such as vitamin E, because fatty acids are vulnerable to oxidation. In fact, oxidised EFAs can stimulate inflammation in the body, so giving omega 3s without an antioxidant could be counterproductive.

What are the health benefits of omega 3 EFAs?

Omega 3 EFAs have a myriad of different effects on the body. Their anti-inflammatory action underlies many of their health benefits, but they also have other effects on various organs and processes. They affect the following broad areas:



Skin

Possibly the most well-known benefit of omega 3 EFAs is that they're good for the skin and coat. Indeed, supplementation can improve the condition of dry and flaky skin and make the coat glossier and shinier. It also decreases itchiness – a recent study showed that supplementation reduced the amount of medication needed to control itching in dogs with atopic dermatitis.[1]

Nervous system

Omega 3 EFAs, especially DHA, play a key role in brain development. In fact, one study found that puppies fed a diet with higher levels of DHA performed better on various learning and memory tasks.[2] EFAs can benefit animals later in life, too, supporting older pets showing signs of cognitive decline.

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Joints

One of the most common reasons why EFA supplements are given to dogs and cats is to help with arthritis. It's the anti-inflammatory effects that are the key here: omega 3 EFAs help to settle the inflammation associated with arthritis and therefore reduce pain. There's evidence to show that supplementation can improve weight-bearing, and can reduce the amount of anti-inflammatory pain relief required.[3]

Heart and vascular system

Omega 3 EFAs have several positive effects on the cardiovascular system. They can reduce arrythmias, and have additional benefits on energy metabolism, heart rate and blood pressure.[4] What's more, they also have anti-coagulant activity, and this could be useful in feline patients at risk of clot formation.

Kidneys

In dogs with chronic kidney disease, a research study found that omega 3 supplementation had long-term protective effects. Interestingly enough, in the same study, omega 6 supplementation worsened the disease.[5] It's been suggested that the benefits of omega 3 EFAs result partly from their anti-inflammatory effect, as well from reducing blood pressure.

Cancer

There's mounting evidence to show that the body's balance of fatty acids is disrupted in cancer. In humans, omega 3 supplementation may reduce the risk of developing breast cancer.[6] From the veterinary field, there's exciting preliminary evidence that EFAs could potentially affect the success of chemotherapy – one EFA actually enhanced the action of two chemotherapy drugs on canine lymphoma cells.[7]

Given the numerous benefits of omega 3 EFAs for dogs and cats, there are a wide range of situations in which vets may recommend a supplement. Read more about Vita's Omniomega supplement here.

1. https://pubmed.ncbi.nlm.nih.gov/26975448/
2. https://avmajournals.avma.org/doi/abs/10.2460/javma.241.5.583
3. https://pubmed.ncbi.nlm.nih.gov/20187817/
4. https://onlinelibrary.wiley.com/doi/full/10.1111/j.1748-5827.2010.00968.x
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7. https://www.sciencedirect.com/science/article/abs/pii/S0006291X15006075