



Omega-3 Fatty Acids Defined

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Omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are important fatty acids for humans and their dog and cat companions because they cannot be made in the body. The only source of EPA and DHA for these species is through the diet and/or supplementation. Daily supplementation with omega-3 fatty acids helps support optimal pet health.

EPA and DHA are necessary structural components of cell membranes. These functional, health-promoting fatty acids maintain the cell membrane fluidity and permeability needed for healthy, functioning cells.

The two health-promoting omega-3 fatty acids are EPA and DHA. EPA and DHA are long-chain omega-3 fatty acids found abundantly in fish. Flax seed oil contains alpha-linolenic acid (ALA), a shorter chain omega-3 fatty acid that requires the enzyme delta-6 desaturase to convert it to EPA and DHA in the body.

Humans and dogs have limited ability to convert ALA to EPA and DHA¹. Cats have even less ability to convert ALA to EPA and DHA². Therefore, supplementation with high-quality omega-3 fish oil is recommended for humans, dogs, and cats.

References

1. Dunbar BL, Bauer JE. Conversion of essential fatty acids by delta 6-desaturase in dog liver microsomes. *J Nutr* 2002;132:1701S-1703S.
2. Bauer JE. Fatty acid metabolism in domestic cats (*Felis catus*) and cheetahs (*Acinonyx jubatus*). *Proceedings of the Nutrition Society* 1997;56:1013-1024.