# VF Omega-3 Study



WHITE PAPER

## VF (Veterinary Formula) Omega-3 impacts omega-3 fatty acids, body's discomfort, and dog's coat: summary of a clinical study.

Written by: Carolina Carlisle, MPH, Ph.D., Clinical Research Scientist Reviewed by the Standard Process Science Review Team: Brandon Metzger, Ph.D., Director of Technical and Product Development Meghan Hamrock, MS, MPH, Nutrition Learning Manager Charles Wagner, PhD, Nutrition Scientist

#### POLYUNSATURATED FATTY ACIDS (PUFAS)

Polyunsaturated fatty acids (PUFAs) are categorized as omega-3s and omega-6s. The essential omega-3 fatty acids consist of eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and alpha-linolenic acid (ALA). Like humans, animals cannot sufficiently convert ALA into EPA and DHA and and therefore it is essential to obtain EPA and DHA from the diet. EPA and DHA have been linked to health benefits.

Canine diets tend to be higher in omega-6s than omega-3s, because of the increased consumption of pet foods and diets that contain, grains, farm-raised fish and vegetable oils, creating an imbalanced ratio and the need for omega-3 supplementation.



#### SOURCE MATTERS

In a study in dogs<sup>1</sup>, results showed that supplementation with ALA, from plant-based flax oil, did not improve omega-3 PUFA blood concentrations, and only the supplementation with a direct source (such as marine) of omega-3 PUFAs resulted in a significantly increased long chain omega-3 fatty acids, EPA and DHA. This is because the conversion process is inefficient in dogs. Therefore, finding alternative sources of omega-3 PUFAs such as marine oils is key. This means sources that are rich in long-chain omega-3 fatty acids (EPA and DHA) and require no conversion from short-chain PUFAs — a conversion that is very inefficient in dogs, and virtually non-existent in cats.

#### **STUDY SUMMARY**

In this clinical study, 29 dogs (ages 3 to 14 years old) consumed Standard Process<sup>®</sup> VF Omega-3, daily, for 16 weeks. The doses for each dog varied by weight (50-99 mg EPA+DHA/kg/day). The dogs in the study had their omega-3 status (EPA and DHA) assessed before and after the supplement intake using the Omega-3 Index (O3I) for Pets. O3I is a blood test, which measures EPA and DHA specifically in red blood cells, and it was administered by a veterinarian. The recommended omega-3 index target range is 3-8%.



**Figure 1 & 2.** Results from the O3I Test kit for dogs, reported that at baseline, most of the dogs (93%) had a low O3I (group average O3I = 1.4%). After consuming VF Omega-3 for 16 weeks, there was significant improvement of the average of the dog's O3I by more than 100% (P<.001)

#### THE BENEFITS OF BALANCED FATS

Lowering the omega-6 to omega-3 ratio by improving the dietary intake of omega-3 PUFAs has been shown to have many benefits in dogs. Specifically, optimal omega-3 PUFAs in dogs have been shown to improve the immune system response, support joint health, and support healthy skin and coat.

#### **STUDY RESULTS**

Results from this clinical study demonstrated that consuming VF Omega-3 for 16 weeks significantly improved discomfort score (P=.04), this effect was magnified at dosages  $\geq$ 59 mg/kg (P<.001) (Figure 3). The results were measured by a validated questionnaire that was designed to assess dogs' discomfort. The questionnaire was filled out by the dog's owners on a 0-4 scale. The questionnaire took into consideration the dog's attitude/mood, willingness to play/interact, and behavior indicative of discomfort (such as whining) among others.



Figure 3. Change in discomfort score versus dosage (mg/kg); negative values indicate a decrease in discomfort

The results of this study also pointed to an improvement in the dog's coat by showing a correlation between an increased omega-3 index and hair/coat quality. (P=.04). Data on file.

- Sixty-two percent of the dogs statistically improved their Discomfort Score from start to finish (change number was negative, went down, "less discomfort") (p=0.04)
- Conclusion: After consuming VF Omega-3 for 16 weeks, there was significant improvement of the average of the dogs' omega-3 index levels by more than 100% (P<.001) [Figures 1 and 2 the light bars.]



VF Omega-3 for Cats & Dogs is formulated to deliver 450 milligrams of EPA and DHA from sardines and anchovies in each softgel. This product can be paired with the Omega-3 Index for Pets Test Kit to help assess omega-3 status and optimize omega-3 status.

It is designed to bridge the nutritional gap and help support:

- Overall health and quality of life
- A healthy ratio of omega-6 to omega-3 fatty acids
- The pathways that regulate joint health and comfort
- Heart health
- · Canine healthy skin and coat
- The central nervous system
- Brain development of puppies and kittens

### REFERENCES

1. Lindqvist, H., Dominguez, T., Dragøy, R., Ding, Y., & Burri, L. (2023). Comparison of Fish, Krill and Flaxseed as Omega-3 Sources to Increase the Omega-3 Index in Dogs. Veterinary Sciences, 10(2), 162.

