

July 2, 2019

DILATED CARDIOMYOPATHY (DCM) & DIET IN DOGS

Like all pet parents, we've been very concerned with the issues the FDA has raised over the past year about a potential link between diet and DCM, especially to grain-free foods. The most recent announcement from the FDA naming brands of foods associated with cases of DCM can be especially confusing for pet parents, for a number of reasons. In response, we've worked with our scientists to put together this Fact Sheet about the FDA's announcement, Nulo's nutritional platform and how we are addressing this emerging topic. After all, we are fully committed to transparency and to giving each other the facts we need to make informed choices and to keep our pets healthy and happy.

FDA, Nutrition, DCM and The Facts:

- It's complicated—there's not a single cause. The potential link between diet and DCM in dogs is complex, and likely involves multiple factors, including genetics, ingredients, nutrients, processing and other factors unrelated to diet.
- The number of dogs affected is (fortunately) very small. The number of pets reported to the FDA as symptomatic of DCM to date is relatively small (approximately 7 in a million, or 0.0007%). The overwhelming majority (>99.9993%) of U.S. dogs consume pet foods every day without developing DCM.
- Both grain-free and grain-inclusive foods are listed in the FDA report. The pet food brands the FDA named on the report of June 29, 2019 include both grain-free and grain-inclusive diets. In fact, the FDA went so far as to offer, "The prevalence of reports in dogs eating a grain-free diet might correlate also to market share: these products have become exceedingly popular over the last several years."
- A causal link between grain free diets and DCM has not been found. A cause-and-effect relationship between grain-free foods and DCM in dogs has not been proven in a scientific study. The FDA has simply reported a summary of observations based on a small sample of diet histories taken from the cases still being scientifically reviewed. Their investigation is ongoing.
- No meaningful conclusions have been made. The FDA report notes that, "At this stage of the
 investigation, the FDA cannot attest to whether or how these case reports are linked to diet," and that
 "To date, the FDA has not established why certain diets may be associated with the development of
 DCM in some dogs."
- Nulo was not one of the 17 dog food brands named most frequently in DCM cases reported to the FDA.
- The FDA is not advising dietary changes based solely on the information gathered so far.

We have confidence in Nulo's Nutritional Platform

- Leading, Expert Formulations. Nulo's dog and cat foods are formulated by a leader in research, development and formulation for dog and cat foods for more than 30 years, who holds a PhD in Animal Nutrition, and regularly collaborates with members of the scientific and veterinary communities.
- MS in Animal Nutrition. Nulo employs a full-time product development nutritionist, also credentialed in Animal Nutrition (M.S., with PhD pending), who oversees the nutritional analysis and quality standards of all of our dog and cat foods and treats.

- Grain-free foods vary considerably in nutrition; Nulo's grain-free formulas are different. Nulo's kibble
 recipes are distinguished among grain-free foods due to Nulo's ultra-high meat inclusion, with an
 average of 80-85% of animal-based protein from a combination of meats, poultry, and fish sources.
- Animal-based protein ingredients are naturally high in Taurine. Muscle and organ meats are the richest natural sources of taurine, methionine, and cysteine, and this allows Nulo's complete foods for dogs and cats to be plentiful in these three nutrients, which may play a role in DCM.
- Nulo foods exceed minimum requirements for Taurine, Methionine and Cysteine. The average analysis
 for Taurine (Tau), Methionine (Met), and Methionine + Cysteine (Met + Cys) in Nulo's complete foods
 for dogs and cats show that Nulo foods exceed, and in many cases more than double, the minimum
 established requirements for these three nutrients:

Comparison of 2019 AAFCO Nutrient Profile to Average Finished Product Analysis

	2019 AAFCO Guideline (Adult Maintenance) %, Dry Matter			Average Level in Nulo, % Dry Matter		
			Met +			Met +
Product Line	Tau	Met	Cys	Tau	Met	Cys
Nulo FreeStyle Dog Kibble	*	0.33	0.65	0.16	0.73	1.45
Nulo FreeStyle Dog Cans	*	0.33	0.65	0.30	1.16	2.15
Nulo FreeStyle Freeze-Dried Raw	*	0.33	0.65	0.20	1.21	1.79
Nulo FreeStyle Cat Kibble	0.10	0.20	0.40	0.22	0.94	1.94
Nulo FreeStyle Cat Cans	0.20	0.20	0.40	0.61	1.38	2.56

^{*}Not Established

We're Closely Monitoring this Issue and Taking Action

Nulo FreeStyle was originally formulated to provide a premium-quality, higher-meat, lower-carbohydrate diet than other grain-free options available on the market. In response to our open dialogue with our retailers and pet parents voicing concerns related to grain-free foods, we are taking the following steps:

- Adding Taurine to the Guaranteed Analysis of Nulo FreeStyle Dog formulas and packaging.
- Developing grain-inclusive formulas that contain more meat and animal protein than is available in the
 market now, giving pet parents a variety of options for choosing the food they feel is most appropriate
 for their particular pet.

As a small, passionate company, we feed Nulo to our own dogs and cats and we spend considerable resources formulating, testing, and controlling our supply chain to ensure the highest quality and safety of our products so that your pets can live active and healthy lives. We invite pet owners with questions or concerns to reach us at: https://www.nulo.com/contact-us.

Healthier Together™,

Michael Landa Heather Acuff, M.S.

Founder & CEO Product Development Nutritionist

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