## Is Grain Free the way to Be?

Scientific knowledge is in perpetual evolution; it finds itself changed from one day to the next
- Jean Piaget

There has been quite the buzz about Grain Free pet foods as of late. Currently 44 % of dog food in the US is "Grain Free" and amounts to a 2.8 Billion dollar a year industry! Literally millions of pets are eating grain free diets. However, they may not be the panacea we once thought. In fact, they may be detrimental to some pets?

Grain free diets gained traction and popularity in 2007 during a sea of recalls from pet foods produced in China that were causing severe health issues to our pets including but not limited to Kidney failure. The idea of grain free diets dense with exotic proteins and legumes appeal to health-conscious people. They are promoted as delicious and nutritious, better for gluten sensitive bellies, closer to the ancestral protein rich diets of the Yorkie's savage ancestors.

But, early this year the Food and Drug Administration announced an investigative link between these diets and a common type of heart disease, Dilated Cardiac Myopathy or DCM. In DCM the heart muscle weakens, and enlarges, causing the heart's pumping mechanism to fail. Symptoms include coughing, increased respirations, fatigue, and even fainting. Some dogs can abruptly go into heart failure. DCM is typically seen in large breed dogs that include Dobermans, Great Danes, Boxers, and Irish Wolf Hounds.

However, a group of cardiologists in the Baltimore area started noticing DCM in uncommon breeds, like Goldens, Doodles, Dachshunds, Labradors, and Shih Tzus. This started to peak their clinical suspicion. The common factor of all of these patients was a grain free diet heavy in peas, lentils, chickpeas, and potatoes, carbohydrates intended to replace grains.

Other veterinary cardiologists started reporting this phenomenon as well. Reports from UC Davis College of Veterinary medicine, and North Carolina State University poured into the FDA. Dr. Darcy Adin, a veterinary cardiologist from NC State discussed a case of two unrelated Miniature Schnauzers in the same household developing DCM. "They were both eating the same boutique exotic protein grain free diet." Her team went on to document 36 more dogs with nutritional related DCM, that included Dachshunds, and miniature poodles, very uncharacteristic breeds to develop DCM. In total, there have been several hundred reported cases linking DCM to grain free diets, but millions of dogs eat these foods. We do not want to panic, but this is statistically significant enough to cause concern.

What do we know? Many of the dogs being fed grain free diets, that develop DCM are taurine deficient. Taurine is an essential amino acid needed for the heart muscle to function normally. The FDA has just started research on these uncharacteristic cases of DCM. Several study groups reveal low taurine levels. Researchers theorize that legumes (lentils, peas, etc) interfere with the dog's ability to absorb taurine from their diet. However, this is not yet a proven conclusion only a warning.

What should concern me when reading the label? A pet food label is a legal document regulated by the Association of American Feed Control Officials (AAFCO) and is the primary means of communication between the pet food manufacturers and pet owners. Pet food manufactures have to list their "ingredients" in order. If within the first five ingredients legumes, lentils, chick peas, or peas appear,

this can be cause for concern. While we do advocate the use of high-quality food, grain free may not be perfect for every pet. More research will be needed to conclude that there is a definitive link between DCM and grain free diets. We still are not certain that these grain free foods are the cause or is there some other fact that has not yet been discovered?

What will the future hold? Great question. More research needs to be done in this area before we have concrete data. Dog food is a multi-billion dollar a year industry and there is a lot at stake. Dog food manufactures, veterinary cardiologists, and the FDA are all working to discover the truth, but in the meantime a conversation about the use of grain free diets with your veterinarian is needed. It is true that some dogs benefit from one diet over the other, but there is no one perfect diet.

In summary, dogs that do not have a genetic predisposition for DCM are developing this disease. The only common link currently is the use of Grain free diets. More research is needed, but in the mean time we encourage pet parents to discuss the issue with their Veterinarian.

Related resources.

https://www.americanveterinarian.com/news/fda-warns-of-possible-link-between-grainfree-dog-foods-and-heart-disease

https://www.fda.gov/animalveterinary/newsevents/cvmupdates/ucm613305.htm

https://www.washingtonpost.com/news/animalia/wp/2018/08/29/grain-free-exotic-dog-food-linked-to-heart-disease/?noredirect=on&utm\_term=.f4e92f12f9eb