

No peas, please

For many dog owners, grain free dog foods are synonymous with natural, healthy diets and better quality ingredients. Now all of that may be about to change thanks to a warning from the FDA <https://www.fda.gov/animalveterinary/newsevents/cvmupdates/ucm613305.htm>. In July the FDA announced that they were investigating a potential link between certain foods containing peas, legumes, lentils, and potatoes as ingredients and dilated cardiomyopathy in dogs. Those ingredients are often the major ingredients in grain free dog foods. Other researchers, especially at UC Davis <https://www.vetmed.ucdavis.edu/news/uc-davis-investigates-link-between-dog-diets-and-deadly-heart-disease>, are also working on the case. The condition is called diet-related taurine-deficient dilated cardiomyopathy.

Indications have been trickling out for years that some breeds could have a diet-related form of dilated cardiomyopathy as opposed to genetic DCM. There has been research indicating that Newfoundlands and American Cocker Spaniels <https://www.morrisanimalfoundation.org/article/researchers-getting-closer-understanding-dietary-aurine-and-heart-disease-dogs> were at risk for this form of DCM. In recent years Golden Retriever owners began reporting a drastic rise in DCM. When researchers began investigating, especially at the University of California-Davis, led by Dr. Josh Stern, they began to see a pattern. An unusually high number of affected dogs were eating grain free diets. The diets all appeared to share common ingredients such as peas, lentils, legumes, and potatoes. What's more, the researchers noticed that other breeds being diagnosed with DCM – breeds with no genetic predisposition for DCM – were also eating grain free foods. We know that some English Setters have already been affected.

So, what's the problem? Some dogs that have been eating grain free dog foods are testing very low for taurine. If you're not familiar with taurine, don't feel bad. It's not something that dog owners usually worry about since most dogs make it in their bodies, as long as they are eating a good diet. Taurine is important for normal vision, good digestion, normal heart muscle function, and to maintain a healthy pregnancy and fetal development. It also helps support a healthy immune system.

Cat owners are probably more familiar with taurine. Back in the 1980s, thousands of cats became blind and/or died because of a lack of taurine in their cat food http://articles.latimes.com/1987-08-14/news/mn-805_1_cat-food. Cats cannot make their own taurine, as pet food manufacturers discovered, so it has to be added to their food, usually in synthetic form.

Taurine naturally comes from animal products, especially meat and fish. While many grain free dog foods can appear to have high protein percentages, much of the protein usually comes from plant sources such as peas, other legumes, and lentils. This plant material has virtually no taurine. Even so, this may not be the cause of the taurine deficiency in grain free dog foods.

Researchers are still investigating why ingredients such as peas, legumes, lentils, and potatoes (including sweet potatoes) could be involved with low taurine levels. One theory is that these ingredients could be inhibiting or blocking the dog's body from absorbing taurine. If that's the case, then as long as you continue to feed a dog food that contains these ingredients, it doesn't matter how much meat or fish protein your dog eats. These ingredients could be blocking your dog from getting the taurine he needs in his diet.

Some grain free pet food brands that have been implicated in causing dogs to develop low taurine levels that can lead to DCM have been rushing to add synthetic taurine to their foods. However, until researchers pinpoint the problem, these foods have to remain suspect. In case you are wondering, the foods involved include many of the bestselling and most expensive grain free dog foods on the market today so it's not a question of inferior or cheap dog foods.

Another theory is that the fiber and plant material from the peas, lentils, legumes, or potatoes may be impeding dogs from absorbing enough taurine which is leading to the heart problems. Another theory is that these ingredients could be interacting in the dog's gut in some way that isn't understood

https://www.petfoodindustry.com/blogs/7-adventures-in-pet-food/post/7469-update-fda-pet-food-ingredient-and-dcm-investigation?utm_source=KnowledgeMarketing&utm_medium=email&utm_content=Pet%20eNews&utm_campaign=18_09_11_PetENews&eid=431672659&bid=2235732. And there are other theories.

But at this time most of the focus is on the idea that peas, legumes, lentils, and root vegetables such as potatoes and sweet potatoes are somehow blocking the absorption of taurine. Even adding more taurine to a dog's diet with toppers like eggs or sardines doesn't seem to raise the dog's taurine level or prevent DCM if the dog is eating a grain free diet with ingredients that can inhibit taurine absorption.

According to the cardiac veterinarians involved in researching the problem, much of the trouble likely stems from grain free dog food makers that have not used professional veterinary nutritionists to formulate their dog foods <http://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exotic-ingredients/>. They recommend feeding foods that have research to back up their formulas; that have qualified veterinary nutritionists formulating their foods and rigorous quality control; and that can give you a complete nutrient analysis (not a guaranteed analysis) of their foods. They also discourage the use of exotic ingredients because they are hard to work with and can lead to nutritional deficiencies. You can find out more about what to look for in a good dog food here <https://www.wsava.org/WSAVA/media/Arpita-and-Emma-editorial/Selecting-the-Best-Food-for-your-Pet.pdf>.

Many dogs do not show any symptoms of DCM until they are very sick. For many owners, a cough and weakness are the first signs they notice in their dogs. Other symptoms can include difficulty breathing, an increased heart rate, fainting, and pale gums.

According to the FDA, if you have been feeding a grain free dog food and your dog is showing possible signs of DCM, you should contact your veterinarian. Your veterinarian can often recognize early heart disease by hearing a heart murmur or abnormal heart rhythms. If you observe these things or your veterinarian is concerned, additional testing may be indicated such as x-rays, blood tests, EKG, or heart

ultrasound (echocardiogram). Your veterinarian may ask you for a thorough dietary history, including all the foods (including treats) the dog has eaten.

You can have your dog's taurine level tested <https://www.vetmed.ucdavis.edu/news/update-nutrition-services-concern-between-diets-and-dcm-dogs> if you are concerned. If you plan to have your dog's taurine level tested, it's best to test before you make any dietary changes in order to get an accurate reading.

If your dog is diagnosed with DCM:

- Ask your veterinarian to test blood taurine levels.
- **It's important to report test results, including the food you have been feeding, to the FDA.**
- Change your dog's diet as directed by your veterinarian's recommendations.
- Ask your veterinarian to help you identify a dose for taurine supplementation.
- Seek guidance from a veterinary cardiologist.
- Follow the instructions from your veterinarian or veterinary cardiologist as repeat evaluations and other medications may be needed. It can take several months to see improvement in many cases of diet-related DCM.

Some dogs diagnosed with diet-related DCM have recovered with treatment and a change in diet but it depends on many factors.

If you are thinking of changing your dog food, Dr. Stern at UC Davis offers some advice. He recommends that you choose a food that does not contain any of the suspect ingredients among the first five ingredients listed. (The FDA says, more conservatively, that the ingredients should not be found before the vitamins and minerals in the ingredient list.)

I would add that you should also watch for something called "splitting." This practice used to be connected with corn in dog food but it also occurs with peas, chickpeas, and other ingredients found in grain free dog foods. You might look at the first five ingredients in a dog food without seeing any peas or other ingredients to avoid. However, if you look further, you could find pea protein, pea starch, pea fiber, field peas, and so on. There might be enough pea material spread throughout the ingredient list to scare the kid in *The Exorcist*, much less your dog.

You can find out a lot more about the current research on this subject in the Facebook Group Taurine-Deficient Dilated Cardiomyopathy. There is also a special Facebook Group for people who have Golden Retrievers called Taurine Deficiency in Golden Retrievers.

Thank you to Dr. Josh Stern and the other researchers working to solve this problem. This research is at an early stage but many dogs are already being helped thanks to their efforts.

Carlotta Cooper
English Setter Association of America
Greeneville TN
eshever@embarqmail.com
[423 639-6195](tel:423-639-6195)