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Dog Tips

# Ignore Their Advice to Feed This Toxic, Contaminated Food

It's unconscionable behavior, but some members of the veterinary community, through the influence of the pet food industry, are preying on your fear about the growing problem of dilated cardiomyopathy (DCM) in dogs. Feeding your pet this contaminated food won't help.

**Reviewed by Dr. Becker**

## STORY AT-A-GLANCE

- Among the numerous problems with kibble is the potential for mycotoxin contamination in grain-based formulas
- A recent study found that 75% of grain-based dry dog food samples tested were contaminated with mycotoxins
- Mycotoxin contamination of pet food ingredients is a serious risk to the health of dogs and cats — a risk that could be mitigated by the use of high-quality grains by pet food manufacturers
- No one has studied the effects of long-term, chronic exposure to mycotoxins in pets fed a processed grain-based diet their entire lives
- If you're concerned about mycotoxicosis, consider transitioning your pet away from all dry food to a balanced, fresh food diet made from organic ingredients

***Editor's Note: This article is a reprint. It was originally published September 9, 2019.***

In the latest update on the growing problem of nutrition-related dilated cardiomyopathy (DCM) in dogs — a problem that appears to be definitively linked to grain-free kibble formulas as one of the issues — there are members of the veterinary community and pet food industry who are using the DCM mini epidemic as an opportunity to urge pet parents to switch to grain-based dog foods. This is unconscionable behavior.

Processed pet food manufacturers and their advocates are using the DCM crisis to push their products, bash their competitors and point fingers, which makes the situation all the more confusing for pet parents trying to figure out what they can safely feed their dogs.

Returning to the "good old days" of synthetically infused, feed-grade, grain-based formulas is not a viable option. DCM is not caused by a grain deficiency. As discussed in detail in the article linked above, it's caused by an insufficient amount of high-quality, meat-derived protein in the diet, basically an amino acid deficiency.

Among the many problems with all types of kibble is the potential for mycotoxin contamination in grain-based formulas. A recently published study conducted by veterinary researchers found multiple types of mycotoxins in grain-based dry dog food, but no measurable concentrations in grain-free kibble or canned dog food, or grain-based canned formulas.[1]

## 75% of Grain-Based Dry Dog Food Samples Tested Were Contaminated

Mycotoxins (derived from the Greek words for "fungus" and "poison") are toxic chemical substances produced by certain types of fungi that infect crops, and U.S. pet food manufacturers are advised to monitor the quality of these ingredients going into their products.

The samples used in the study were from five different brands of commercially available dog food manufactured in the U.S. following U.S. guidelines for the manufacturing of dog food. A total of 60 samples of grain-based dry and canned dog foods and grain-free dry and canned dog foods were analyzed for 11 different mycotoxins. From the study:

> *"Only dry dog foods containing grains had detectable mycotoxin contamination, and only mycotoxins that are products of the Fusarium genus were detected. Of the 12 dry dog foods containing grains that were analyzed, nine of the twelve had at least one detectable Fusarium mycotoxin."*

Fumonisins (FUM) are found mainly in corn and can cause organ damage. In horses, this toxin is known to cause deadly Equine leukoencephalomalacia (ELEM), also called "hole-in-the-head-disease," in which the neural tissue of the brain liquefies.[2]

> *"For DON and fumonisin B1, 9/12 dry grain foods were above detection limits while 8/12 samples were positive for fumonisin B2 and 4/12 samples tested positive for zearalenone."*

Deoxynivalenol (DON), a member of the trichothecenes family of toxins, is known to negatively affect the immune system of animals. It also causes digestive issues such as vomiting, diarrhea, refusal to eat and/or weight loss, as well as hemorrhaging.[3]

> *"When considered by brand, at least one of the four Fusarium mycotoxins was found in each of the four brands of dry grain foods. For two brands … at least one of the three samples tested were positive for all four Fusarium mycotoxins."*

## Mycotoxin Contamination of Pet Food Ingredients Is a Long-Standing Problem

The problem with the mycotoxin contamination of processed grain-based dog and cat is not a new one, and in fact, the results in the just-published study of dog food closely align with the results of a survey of corn and distiller's dried grain crops (cereal byproducts of the distillation process) produced in 2016.

A total of 387 corn samples and 79 distiller's dried grains with solubles (DDGS) samples from across the U.S. were tested.[4] Results revealed that 90% of corn samples and 100% of DDGS samples were contaminated by at least one mycotoxin, and 96% of the DDGS samples contained more than one.

The three major mycotoxins found in the tested samples were produced by the Fusarium fungi and included deoxynivalenol, fumonisins and zearalenone (ZEN) — an estrogenic mycotoxin that is reported to cause reproductive abnormalities in all animal species.[5] All three toxins were present in harvested corn at higher levels than were measured in 2015 crops.

## Are Pet Food Producers Increasing Profits by Choosing Grains Unfit for Human Consumption?

In the 2019 study, the researchers provide enlightening information on the topic of the quality of grain used in commercial dog food:

> *"When grains are incorporated into dog food formulations it is important that high quality grain is used. Grain quality is correlated with mycotoxin contamination as lower grade grains often contain broken and fragmented grains which are much more susceptible to mold growth and subsequent mycotoxin production.*
>
> *Grains are numerically graded based on factors such as test weight, proportion of damaged or broken kernels, presence of foreign odors, or heat-damage. Any of these factors can contribute to mold growth and mycotoxin production.*
>
> *However, pet food manufacturers may choose grains unfit for human consumption as a cost-cutting strategy. Using only grains graded as US No.1 by the USDA could be a control strategy to minimize mycotoxin contamination from ingredients incorporated into pet food.*
>
> *Currently, there is no requirement to reveal the grade of grain incorporated into pet food, but noting the grade of grains used on the ingredients list could help consumers choose pet foods with more confidence."*

The vast majority of commercially available grain-based kibble is made with grains unfit for human consumption, as are most or all of the other ingredients in those formulas as well. After all, processed pet food is where waste from the human food industry ends up.

You'll know if your pet food is made with human-edible ingredients because it will be the company's major marketing point: This information will be plastered all over their website, as human-grade pet foods are incredibly expensive to produce and none of the major manufacturers of the most popular pet foods sell any human-edible foods made with traceable ingredients.

## No Study Has Evaluated the Risks of Long-Term, Chronic Exposure to Mycotoxins in Pet Food

As the study authors make clear, "… the potential for mycotoxin contamination in pet food poses a serious health threat." This is especially concerning since companion animals "… are often maintained and fed for longer periods of time on a homogeneous, grain-containing diet and thus more likely [than either farm or laboratory animals] to have chronic exposures to pet foods contaminated with either single mycotoxins, or multiple mycotoxins in various combinations."

Maximum concentrations of mycotoxins allowed in pet foods are typically extrapolated from data on animals not kept as pets. Those concentrations don't necessarily indicate "safe levels" for mycotoxin exposure in pets, since very few studies have actually been conducted in pets. Further, none of those studies has looked at the effect of long-term chronic exposure in pets fed contaminated feed over their lifespan.

> *"Due to this uncertainty," write the study authors, "one of the perceived health benefits of grain-free diets might be due to the elimination of low-dose chronic exposures to mycotoxins, as grains in pet food are presumed to be the main source of mycotoxin contamination."*

Because some pets with DCM have been switched back to pet feed (not approved for human consumption) containing grain, any pet owner feeding a grain-based diet to any animal with a diagnosed medical condition, including DCM, should demand mycotoxin testing from the pet food manufacturer.

## Mycotoxin Poisoning in Pets

The severity and type of symptoms a dog displays depends on the amount and type of mycotoxin ingested. Some of the more common symptoms associated with acute mycotoxicosis include:

- Panting
- Weakness
- Hyperactivity
- Loss of coordination
- Vomiting
- Increased heart rate
- Lack of appetite
- Increased body temperature
- Dehydration
- Seizures
- Muscle tremors

Mycotoxin poisoning is a true **medical emergency**, and your dog will need immediate treatment and hospitalization. Your veterinarian must take early and aggressive action to remove the toxic substances from your pet's body. Most vets may not correlate these symptoms to mycotoxins in pet food, so make sure you voice your thoughts if you suspect your four-legged family member has been poisoned by her food.

The problem is, most mycotoxin toxicosis is not acute, it's persistent exposure below the level of acute symptoms, which makes it all the more dangerous.

Acute exposure allows pet owners to react, provide emergency veterinary care, identify food as the culprit, treat their pet appropriately and discontinue the food. With low-level exposure, none of these things occur. Chronic, low-level exposure creates a myriad of diffuse disease symptoms that vets don't correlate to contaminated food, so most pets continue to eat the toxic food and become sicker, without a direct cause of the disease ever being identified.

## Common Food Sources of Mycotoxins

- Corn
- Peanuts

- Wheat (bread, cereal, pasta)
- Cottonseed and cottonseed oil
- Barley (cereal)
- Rye
- Sugar cane and sugar beets (which also feed fungi)
- Sorghum (found in a variety of grain-based products)

The above foods can be found in many commercially available pet food formulas. Study the ingredients in the food you buy your pet, and avoid brands containing grains or corn in any form, including corn gluten meal, whole grain corn, corn flour, etc. Also avoid formulas containing cereal grains like maize, sorghum, pearl millet, rice and wheat.

Consider transitioning your pet away from all dry food to a balanced, meat-based fresh food diet made from organic ingredients. You can also look into commercially prepared raw pet foods as well as dehydrated raw foods that are GMO-free. Or you can consider a mixture of homemade and commercially prepared organic diets.

## Sources and References


TruthAboutPetFood.com August 12, 2019

[1] Toxicology Communications Volume 3, 2019 - Issue 1

[2, 3, 5] Nutriad

[4] PetfoodIndustry.com, February 10, 2017