bark & whiskers

Dog Tips Cat Tips

The One Pet Food Ingredient You Must Avoid

This is truly one of the worst, yet it's common in commercial foods. Not only is it a powerfully allergenic food that's difficult for many animals to digest, it also can harbor mycotoxins that can make your pet very ill and even cause cancer. Avoid it like the plague in both treats and foods.

Reviewed by <u>Dr. Becker</u>

STORY AT-A-GLANCE

- Two common culprits in pet food-related illness are aflatoxins and salmonella
- The presence of aflatoxins, a well-recognized carcinogen, is more common in processed dog food than cat food, because commercial dog diets often contain significant amounts of corn products and other fungus-friendly agricultural crops
- Salmonella contamination is the leading cause of processed pet food recalls, but what many dog and cat guardians don't realize is the primary threat of salmonellosis is to them not their pets
- Healthy dogs and cats naturally carry some salmonella in their GI tracts. Their bodies are designed to handle the heavy bacterial load typically found in the diets of wild carnivores
- There are common-sense steps pet owners can take to keep two- and four-legged family members safe from the threat of aflatoxicosis and salmonella infections

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If you're like most pet owners, you've probably given a lot of thought to the type of food you feed your animal companion.

It seems recalls of commercial pet foods are happening on a weekly basis these days, so it's no wonder so many dog and cat guardians are concerned that the food they buy for their furry family members could make them sick.

After all, many pet food-associated illnesses (i.e., any disease or disorder linked to or caused by pet food) can be life-

threatening.

When pet food triggers a sudden illness in a dog or cat, it often involves either infection from a bacterial contaminant, or toxicosis. Two frequent offenders are aflatoxins and salmonella.

Aflatoxins

Aflatoxin contamination was responsible for a number of regional pet food recalls in 2011, as well as several major disease outbreaks over the past 20 years.¹

Aflatoxins are noxious metabolites produced by the Aspergillus flavus and Aspergillus parasiticus fungi, and are the most extensively researched mycotoxins in the world.

Aflatoxins are known to cause acute toxic illness and cancer in animals and humans, and are considered among the most carcinogenic substances on the planet. Cats and dogs are more sensitive to aflatoxins than many other animals.

Aflatoxins can infect agricultural crops before they are harvested. Conditions that promote contamination include high temperatures, prolonged periods of drought, and insect activity.

Aflatoxins can also be a problem after harvesting if the crop stays wet for too long. They can grow on stored crops, as well, if the moisture level is too high and mold develops.

The three plants with the highest rate of aflatoxin contamination are corn, peanuts and cottonseed. Other frequently contaminated agricultural products include:

- Maize, sorghum, pearl millet, rice, and wheat cereals
- Peanut, soybean, and sunflower oilseeds
- Chili peppers, black pepper, coriander, turmeric, and ginger spices
- Almonds, pistachios, walnuts, coconuts, and brazil nuts

Processed foods containing corn can also carry a risk of aflatoxin adulteration. Infected corn and cottonseed meal fed to dairy cows has resulted in aflatoxin contamination of milk and other dairy products including cheese and yogurt.

Aflatoxins in Pet Food

In the U.S., aflatoxin contamination is more common in processed dog food than cat food because commercial dog food formulas more often contain corn products. A 2016 survey of premium and super premium pet food in Brazil highlights the ongoing, serious problem of mycotoxin contamination:

"Based on the results of this survey, it is the belief that pet food which contains grain should not be considered safe for cats and dogs in Brazil. Grains and grain by-products such as maize, maize gluten meal, wheat, soya, etc. are the most important sources of mycotoxins in pet food."²

The survey looked at 14 commercially available premium and super premium dry dog and cat food samples purchased from pet shops in Brazil. Almost 100 tests were run to check for the presence of mycotoxins frequently found in agricultural crops intended for pet food production. The test results were stunning:

- 93% of the pet food samples were contaminated with the mycotoxin fumonisin B1 (FB1)
- 85% were contaminated with fumonisin B2 (FB2)
- 43% contained the mycotoxin ZEN
- 22% contained aflatoxin B1

Most of the mycotoxins found in the samples were at concentrations considered "medium."

If you feed kibble to your pet (which is only recommended if you cannot afford to feed better quality food), be sure to study the ingredient list carefully and avoid brands containing grains or corn in any form, including corn gluten meal, whole grain corn, corn flour, etc.

Along with the increased risk of aflatoxin contamination, corn is a notoriously allergenic food that is difficult for many animals to digest. Also avoid formulas containing cereal grains like maize, sorghum, pearl millet, rice and wheat. Rice can also contain toxic levels of arsenic.

Many inexpensive, low quality pet foods rely heavily on all these ingredients. Many treats also contain these ingredients, including organic "cookies" (made from organic whole wheat or rice), which are an under-represented potential source of toxicosis.

Signs of Aflatoxicosis in Pets

The disease caused by aflatoxins is called aflatoxicosis, and in animals it primarily involves the liver. Clinical signs of a problem with the liver include gastrointestinal dysfunction, reproductive issues, anemia and jaundice.

Certain types of aflatoxins are associated with the development of cancer in animals. If your pet becomes ill from food contaminated with aflatoxins, you'll see one or more of these symptoms:

- Severe, persistent vomiting combined with bloody diarrhea ۰
- Loss of appetite ۲
- Fever and sluggishness ۰
- Discolored urine
- Jaundice (yellow whites of the eyes, gums, belly) ۲

If you suspect your pet has ingested aflatoxins (if your pet becomes ill after switching to a new food or grain-based treat), even if he seems normal, get him to your veterinarian or an emergency animal clinic right away, since the mortality rate is high once a pet is showing symptoms.

Bring your pet's food with you if possible, for testing. You should also consult your holistic veterinarian for recommendations on natural liver detox agents like NAC, glutathione, milk thistle, SAMe and chlorophyll.

Salmonella

Salmonella contamination is the leading cause of pet food (and human food) recalls. And despite what many in the conventional veterinary community would have you believe, the vast majority of recalls are for processed pet food diets, not raw diets. The most important thing to understand about salmonella contamination of pet food is that the risk of illness is primarily to human family members, not the four-legged kind.

That's because dogs and cats naturally have some salmonella in their GI tracts much of the time. Salmonella is not an unknown foreign invader — it's bacteria your pet's body is familiar with. The most common strain found in dogs and cats is salmonella typhimurium.

Dogs and cats are built to handle bacterial loads from food that would cause significant illness in humans. Your pet's body is well equipped to deal with heavy doses of familiar and strange bacteria because he evolved to catch, kill and consume prey. Your pet's stomach is highly acidic, with a pH range of 1 to 2.5. Nothing much can survive that acidic environment. It exists so that dogs and cats can consume contaminated raw meat and other foods.

In addition to the acid, dogs and cats also naturally produce a tremendous amount of bile. Bile is both antiparasitic and antipathogenic. So if something harmful isn't entirely neutralized by stomach acid, the bile is a secondary defense. Now, that's not to say no dog or cat has ever become ill from salmonella. However, healthy pets typically do not.

Risk factors for clinical disease include the age of the pet, his nutritional status, the presence of cancer or another concurrent disease, his stress level, and whether he's been given antibiotics, steroids, or chemotherapy.

Keeping Your Pet Safe from a Salmonella Infection

- Feed a balance, fresh, whole, and species-appropriate diet that is free of genetically modified ingredients.
- If you feed raw, freeze the meat or meat mixture in individual serving-size packets for at least 3 days before serving. Defrost in the refrigerator overnight.
- Use safe food handling techniques. Clean and sterilize all utensils, bowls, surfaces and equipment after each use.
- Discard any uneaten fresh food after 30 minutes.
- Minimize the drugs your pet takes, including vaccines.
- Reseed the gut during and after antibiotic therapy with a probiotic. It's also a good idea to maintain your dog or cat on a daily probiotic to balance the ratio of good to bad bacteria (gut flora).
- Help your pet's body get the most out of the food you feed by offering a good-quality digestive enzyme.

Safe Handling of Processed Pet Food

- Wash your hands thoroughly after handling any pet food or treats.
- Don't allow very young children, elderly people or those who are immunocompromised to handle pet food or treats.
- Keep all pet foods and treats away from your family's food.
- Do not prepare pet foods in the same area or with the same equipment/utensils you use to prepare human foods.
- Wash pet food bowls after each meal.
- Do not allow pets on countertops or other areas where human food is prepared.
- Feeding pets in the kitchen can be a source of salmonella infection. Feed your pet in an area other than your kitchen, or as far away from human food preparation areas as possible.

Sources and References

Clinician's Brief, Top 5 Pet Food-Associated Illnesses

¹ Journal of Medical Toxicology: Official Journal of the American College of Medical Toxicology 7(1):60-6, December 2010

² <u>PetFoodIndustry, February 4, 2016</u>