

# The Mistakes Even Vets Make With Digestive Issues in Dogs

Because of how most veterinarians are trained, they tend to overlook the one thing that's been shown to help up to 80% of dogs with chronic gastrointestinal issues. Instead, their go-to approach is often haphazard, unnecessary and likely to make the condition worse.

Analysis by Dr. Karen Shaw Becker

## STORY AT-A-GLANCE

- Most dogs with chronic digestive tract issues have a form of inflammatory bowel disease (IBD) called lymphocytic plasmacytic enteritis, and up to 80% of these dogs respond well to changes to their diet
- An ongoing study of dogs begun in 2018 using dietary changes to address persistent GI issues is yielding positive results; however, over time, it's likely the issues will recur for dogs switched from one ultraprocessed diet to a different ultraprocessed diet
- One revelation from the study is that hydrolyzed protein diets marketed to treat GI disease seem no more beneficial than intact protein diets
- Dogs with suspected food intolerances should be tested to determine the specific food(s) they react to; once the problem food(s) have been identified, a 2-to-3-month novel diet should be introduced
- Every case of food intolerance in dogs is unique, which is why it's extremely important to design a custom-formulated healing protocol for each pet

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Most dogs with chronic gastrointestinal (GI) issues (aka chronic enteropathy) have a form of inflammatory bowel disease (IBD) called lymphocytic plasmacytic enteritis. Up to 80% of dogs with the disease respond well to changes to their diet,<sup>1</sup> but unfortunately, most are initially treated in a haphazard, "best-guess" approach as their owners and veterinarians try to relieve their symptoms and discomfort.

In my experience, this approach typically involves multiple rounds of unnecessary antibiotics and/or corticosteroids, which are often not only not helpful long-term, but can exacerbate the underlying disease by further damaging the microbiome. This occurs in part because veterinarians aren't trained to look first at what their patients are eating as a root cause of GI inflammation, which progresses to GI disease.

## Dietary Adjustments Are Often Unsustainable Half Measures

Veterinarians who do include dietary changes in their treatment plans typically recommend ultraprocessed diets that are presumably easier to digest or contain a different type of meat than the dog has been eating. Increasingly, they're also prescribing diets containing hydrolyzed proteins that have been chemically "smashed" into smaller pieces to avoid stimulating the immune system.

In 2018, researchers at Cornell University's College of Veterinary Medicine (CVM) launched an ongoing study to evaluate the effectiveness of dietary changes in treating persistent GI problems in dogs.<sup>2</sup> With regard to hydrolyzed protein diets, lead study investigator Kenneth Simpson, professor in the CVM's Department of Clinical Sciences observes that:

*"... no one really knows why or how these diets work or why the original diet caused clinical signs. We don't know the optimal way to manage those dogs."*<sup>3</sup>

In my opinion, switching from one ultraprocessed food to another provides only a temporary respite from GI issues, and in most cases, those issues will resurface eventually. More about this shortly.

## **Study Dogs Are Fed Only Ultraprocessed Commercial Diets**

Dogs participating in the Cornell study are separated into three groups. Two groups are fed hydrolyzed protein diets; the remaining control group is fed a "high-quality maintenance mixed-protein diet."

All three diets contain the same balance of carbohydrates, protein, and fat, and are supplied to the dogs' owners at no cost by the pet food company that is sponsoring the study. (It's an unfortunate fact of life, not to mention an obvious conflict of interest, that ultraprocessed pet food companies provide most of the nutritional training in veterinary schools.)

A separate fourth group of dogs with a disease known as protein-losing enteropathy are also part of the study. These dogs are much sicker overall and present a significant treatment challenge because many of them refuse to eat the prescribed diets. For the study, this group receives either of the two hydrolyzed diets, and the primary goal is to increase their interest in eating and help them gain weight.

Dogs who fail to respond after two weeks can be moved to another group receiving a different diet. Once a dog is responding well to a given diet, he or she stays on it for at least three months, ideally six or more to see if any changes are maintained.

## **Study Suggests Any Change in Diet Is Beneficial Short-term**

Simpson and his colleagues are happy with their study results so far but are also somewhat surprised, in part because they expected the dogs on the hydrolyzed diets to do much better than the dogs in the control group, who are fed regular maintenance diets.

*"Conventional wisdom would suggest that the hydrolyzed diets would do better and dogs on the intact mixed-protein maintenance diets would fail to respond," he explains. "Yet, at three months, almost all dogs, independent of group ... had positive responses, which means the placebo group is performing equally well."*

These results comport with what many veterinarians, including myself, have seen in clinical practice: that almost any change in the dogs' diets would bring about a temporary improvement in their conditions because of the removal or replacement of a certain percentage of potentially problematic ingredients.

According to the pet food company website, they use only natural preservatives and no genetically modified organisms (GMOs) in pet food formulas.<sup>4</sup> It's potentially likely some of the study dogs were reacting specifically to synthetic preservatives and/or genetically modified ingredients in their pre-study diets. Simpson hypothesizes that:

*"... while we are still in the dark about what's driving adverse reactions to food in dogs, the positive responses to a high-quality, intact mixed-protein-source diet suggest they are not a simple allergic response to intact protein. Perhaps non-protein ingredients or additives may be causing adverse reactions."*

I agree. The epidemic of GI issues in dogs (and cats) isn't as simple as an allergic response to intact proteins; however, I do think contaminants, including herbicides (RoundUp) and antibiotic residues found in many pet foods negatively affect gut health.

And I definitely feel that all the "non-protein ingredients" and other additives found in ultraprocessed diets are a foundational problem, along with the changes that occur to ingredients subjected to high heat processing, including the formation of Maillard Reaction Products (MRPs), including **advanced glycation end products (AGEs)**, that create gut inflammation in animals.<sup>5</sup>

## Hidden Causes of Dysbiosis in Pets

It's important to be aware that for dogs with IBD, **leaky gut** (dysbiosis), or some other significant GI disorder, until the underlying disease is identified and healed, it's unlikely that treating food sensitivities alone by rotating diets will be successful.

Leaky gut in pets has many causes, including environmental contributing factors you might not be aware of. One of the most recently discovered triggers is toxic household dust. If you're still using Teflon pans, **air scenting products** (plug-ins and room sprays) and regular (nonorganic) cleaning products, now is a good time to switch to nontoxic alternatives.

The chemically laden dust in your home and the dust mites it attracts may be contributing to gut inflammation in your pet.<sup>6</sup>

In a leaky gut, as the tight junctions of the intestines break down, the body's first response is to release fluid into the intestines to try to flush the irritants out. Diarrhea is the result. All it takes is one round of the most common treatment for diarrhea, the antibiotic Flagyl (metronidazole), and research demonstrates that microbiome imbalance and dysbiosis is the outcome for most pets.<sup>7</sup>

Add in monthly oral administration of flea and tick pesticides that negatively affect the microbiome and the repeated prescribing of more antibiotics without appropriate diagnostics, in addition to an ongoing intake of highly refined, additive-laden feed-grade "pet food," and it's easy to see why many pets in modernized countries end up with recurrent gut issues and chronic enteropathies.

## Leaky Gut Sets the Stage for Food Intolerance

Chronic GI inflammation sets the stage for systemic food intolerances and potential food allergies because the gut leaks contaminants and partially digested food particles into your pet's body, triggering a cascade of problems.

If the gut allows enough foreign particles into the body, the immune system may perceive that something in your pet's diet is attacking her body. To deal with the "threat," the immune system launches a counterattack just as it would against a real danger, for example, an infectious agent.

Certain substances in the diet are more likely to trigger the immune system than others, and unfortunately, the nutrient your **carnivorous pet** needs most — protein — is very often the culprit. Many integrative veterinarians have discovered protein reactions are much less severe or disappear when the protein is "clean" (human grade and not factory farmed) and minimally processed.

Although no research has been published on why carnivores develop sensitivities to protein, we suspect foreign contaminants and food processing byproducts may be the reason. Growth hormones, antibiotics, chemical residues and MRPs may be the triggers, and not protein itself.

If we had multiple generations of pets raised exclusively on organic, clean, fresh, species-specific diets, we could conduct studies to determine if they also develop sensitivities to meat proteins. If this population of animals did not develop intolerances to the proteins in their diet, our suspicions about foreign contaminants and heat processing byproducts would be confirmed.

However, since 99.9% of pet foods are made with conventionally raised, factory-farmed meats (and only the leftover, rendered pieces and parts that fail to become human food), blended with glyphosate-contaminated fillers known to disrupt the microbiome,<sup>8</sup> sensitivities will continue to be an issue for almost all susceptible pets.

And to compound the problem, often it isn't until the GI tract has been significantly compromised by the inflammation caused by a food intolerance that a dog begins to show symptoms of digestive disturbance.

Pets fed the same food day in and day out for a period of months or years can develop a sensitivity to not only the protein source, but also grains and vegetables.

If the food is made from inexpensive feed-grade raw materials (which describes the vast majority of pet food) and is highly processed (the vast majority of kibble has been **cooked 4 times** before reaching the bag), chances are the food contains high levels of detrimental substances, including oxidized fats and advanced glycation end products (AGEs), which in addition to medications that alter the gut microbiome (antibiotics, steroids, nonsteroidal anti-inflammatories, to name a few) can prompt the immune system to overreact and cause massive systemic inflammation.

These dogs also often grow sensitive to other reactive ingredients in the food, typically inflammation-creating grains and other refined carbohydrates. Many grains have been genetically modified and sprayed with pesticides and herbicides, which can compromise the microbiome and contribute to dysbiosis.

Certain breeds of dogs are more sensitive to the damaging effects of grains on the gut,<sup>9</sup> but because pets don't need any starch to begin with, most do best with a grain free, low carb/starch diet to address and prevent gut problems.

Unfortunately, ultraprocessed "grain-free" pet food manufacturers have simply replaced the excessive amounts of corn, wheat, or rice in their products with other starches that often contain high amounts of lectins or other "anti-nutrients" that can create equally as much inflammation in the gut.

## How to Help a Pet With Food Sensitivities

The first thing I recommend for animals over the age of 12 months who I suspect are dealing with a food sensitivity is a NutriScan saliva test. If the first thing your own veterinarian recommends is antibiotics and/or a highly processed prescription diet, I suggest you order a NutriScan test instead. I also suggest finding an integrative veterinarian who will work with you to identify the root cause of your pet's condition and develop a customized healing protocol.

The NutriScan panel tests for 24 purified food extracts that recognize 56 food ingredients, and the results can often identify the specific ingredient(s) in your pet's food that are causing a problem, which makes it much easier to customize a diet to resolve the issue.

When an animal is having a reaction to something in her diet, her body needs a break from that food. After determining your dog's food sensitivities with a NutriScan test, my recommendation is to introduce a novel diet to promote healing. This means transitioning her to a different food she isn't sensitive to containing ingredients her body isn't familiar with.

Evaluating your pet's microbiome can also provide insight. Lots of companies now offer microbiome assessments, and pairing a highly digestible, low residue, novel protein diet with a microbiome restoration protocol (based on your pet's microbiome results) has proven to be incredibly beneficial for many patients with long-standing GI disease.

Unfortunately, many dog foods claiming to contain "novel proteins," don't. In addition, pet food mislabeling is a widespread problem, so if you're planning to go with a commercially available processed novel diet, be aware it will undoubtedly contain ingredients you're trying to avoid.

The safest approach, at least for the first few months, is homecooked meals that allow you to control virtually everything that goes into your dog's mouth. Second best is a human grade commercially available fresh food containing an uncommon protein, produced by a company you trust.

It's very important that all suspect foods be avoided for at least several months. Oftentimes animals experience a reaction to both the primary protein and carbohydrate sources in their diet. In addition to avoiding all potentially problematic foods, it's important to reduce or eliminate any unnecessary ingredients (including dyes/colors, flavorings, and preservatives) that can play a role in food sensitivities and inflammatory conditions.

I also believe pets with food intolerances do best on a very low-starch diet. Starches (aka soluble carbohydrates, or sugar) are pro-inflammatory to the body and can exacerbate GI inflammation. Microbiome expert Dr. Holly Gantz has also seen beneficial changes in pets' microbiomes when excessive carbs are reduced.

Until new labeling standards are fully in effect, pet food manufacturers aren't required to list carbohydrate content on their labels, so you have to calculate it yourself. It's worth taking the time to do this before choosing a novel diet (less than 20% carb content is the goal).

## Returning to a Regular Diet

A dog with food sensitivities should remain on a novel diet for a minimum of 2 months and preferably 3, to allow the body time to clear out the irritating substances and begin the GI repair and detoxification processes.



During this 3-month period I also typically address dysbiosis with the appropriate probiotics or **microbiome restorative therapy** and GI-supportive nutraceuticals. If your pet has had multiple rounds of antibiotics, assessing the microbiome, and beginning microbiome restorative therapy can be life changing. This is where partnering with a functional medicine veterinarian that has experience in healing dysbiosis is important.

Because each case of food intolerance is unique, again, I recommend a custom formulated protocol created by a professional that understands your pet's unique circumstances. Once a patient has completed 2 to 3 months on a novel diet, other foods can be slowly reintroduced one at a time while the dog's response is closely monitored.

Some pets show dramatic improvement on the new diet, and in those cases, I often don't rush the reintroduction of foods that could be problematic.

When the animal is stable and doing well, I encourage pet parents to find at least 1 and preferably 2 other protein sources their pet tolerates well so that every 3 to 6 months, they can rotate proteins and hopefully avoid further intolerances.

In addition, I believe the "cleaner" the proteins, the less chance your pet will become sensitive to them over time. Clean animal proteins are nontoxic, with no chemical residues to contend with. For example, food animals raised on a natural diet (grass fed, not factory farmed), as well as hormone-free animals, are better food sources for sensitive pets.

If your animal does not have gut issues or dysbiosis, the best way to avoid it is to diversify the diet (and in turn, the microbiome) now: feed a variety of different protein sources and brands of human-grade, less-processed diets (raw, gently cooked, freeze dried, low-carb dehydrated), with lots of microbiome-building fresh foods added at the time of serving.

And remember, if your pet receives known microbiome-disrupting drugs (antibiotics, steroids, flea/tick pesticides or nonsteroidal anti-inflammatories) always institute a concurrent microbiome reparative protocol (or at least probiotics) that extends at least a month past the last dose of medication.

## Sources and References

<sup>1,2,3</sup> [Cornell Chronicle, July 15, 2020](#)

<sup>4</sup> [Farmina Pet Foods, "Behind Our Natural Choice"](#)

<sup>5</sup> [Qu, W. et al. Mol Nutr Food Res 2017 Oct;61\(10\).](#)

<sup>6</sup> [Takahashi, K. et al. Veterinary Immunology and Immunopathology Volume 230, December 2020, 110150](#)

<sup>7</sup> [Pilla, R. et al. Journal of Veterinary Internal Medicine, August 28, 2020](#)

<sup>8</sup> [GMOScience, January 15, 2020](#)

<sup>9</sup> [Hall, E.J. et al. Dietary modulation of gluten sensitivity in a naturally occurring enteropathy of Irish setter dogs. Gut. 1992 Feb; 33\(2\): 198-205](#)

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