

From Puppies to Adults: The Diet That Fights Disease

Discover how a simple change in your puppy's diet can fortify their health against chronic enteropathy later in life.

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STORY AT-A-GLANCE

- A recent study by researchers at the University of Helsinki shows that feeding puppies and young dogs a non- or minimally processed meat-based diet from age 2 months to 18 months was associated with a decreased incidence of chronic enteropathy (a form of IBD)
- The study highlighted the role of the intestinal microbiome in canine chronic enteropathy, and the fact that offering puppies a non-processed, meat-based diet may encourage development of a balanced GI microbiome
- A 2019 study suggests some dogs with a form of IBD can experience remission through alterations in the gut microbiome triggered by a dietary change
- The diet used to help patients in the study was a highly processed veterinary diet; however, in my experience, avoiding ultraprocessed pet foods is the best way to avoid and treat chronic enteropathies, including IBD, IBS and "sensitive stomachs"
- To help your dog avoid GI disease, feed a variety of nutritionally optimal, species-specific diets containing unadulterated, high-quality animal protein, moisture, healthy fats and fiber, and low to no starch content

One of my favorite research teams, led by Anna Hielm-Björkman in the Department of Equine and Small Animal Medicine at the University of Helsinki in Finland, published a study in 2023¹ that looked at links between what puppies are fed and the incidence of **chronic enteropathy** (CE) later in life. Chronic enteropathy is a form of inflammatory bowel disease aka IBD characterized by inflammation in the gastrointestinal (GI) tract.

The study was based on longitudinal data and a food frequency questionnaire designed to gather information about early life diets. Results revealed significant associations between what puppies are fed and their risk for CE as adults. Specifically:

- Feeding a non- or minimally processed meat-based diet from age 2 months to 18 months was associated with a decreased incidence of CE; this diet included raw red meat, organ meats, fish, eggs, tripe, bones and cartilage, vegetables, berries, fruits, and fat supplements in the form of fish and vegetable oils and animal fat
- Feeding an ultraprocessed, carbohydrate-based diet, specifically kibble, during the same period increased the potential for development of CE later in life

Per the study authors:

"We found that feeding a non-processed meat-based diet and giving the dog human meal leftovers and table scraps during puppyhood and adolescence were protective against chronic enteropathy later in life."²

Needless to say, these findings fly in the face of the usual advice that **feeding table scraps to dogs** is a bad idea.

Importance of Microbiome Diversity in Puppies, Young Dogs

The study results revealed that specific food items fed to puppies and adolescent dogs play a protective role against CE, specifically, **raw bones** and cartilage (the protective effect of which increases with higher feeding frequencies), and berries.

The researchers discovered that eating human meal leftovers and table scraps in early life had a significantly protective effect on the future GI illness incidence. Interestingly, home-cooked meal diets did not have the same effect. Table scraps included cooked potato, non-sour milk products, cooked poultry and fish and processed meat.

The study highlighted the role of the intestinal microbiome in canine chronic enteropathy, and the fact that offering puppies a non-processed, meat-based diet may encourage development of a balanced GI microbiome, contributing to intestinal homeostasis (a condition of optimal functioning).

The biodiversity hypothesis, which holds that more microbial exposures in early life promote a healthier immune system, was supported by these study results. The study results provide evidence that minimally processed diets during puppyhood and adolescence may help lessen the risk of CE later in life.

2019 Study: Change in Diet Put CE Into Remission in 20 Dogs

An earlier study by veterinary researchers at the University of Pennsylvania suggests that some dogs with chronic enteropathy experience remission when a change in diet induces specific changes in their microbiome.³

In the Penn Vet study, researchers looked at links between a specific "therapeutic" diet fed to 29 dogs with CE, the microbiomes of those dogs, and remission of their disease. What they discovered was that in the 20 dogs whose disease went into remission, there were key features of the microbiome and associated metabolic products.

Specifically, the microbiomes of the dogs who achieved remission had an increase in metabolites known as secondary bile acids, which are produced when certain microbes in the gut consume bile released by the liver. One of the friendly microbes that produces secondary bile acids is *Clostridium hiranonis*, which was found in greater numbers in the dogs whose disease entered remission.

These dogs also had fewer pathogenic bacteria such as *E. coli* and *Clostridium perfringens* after they began the diet. The researchers performed two additional studies to test their hypothesis for what actually triggers remission.

*"This allowed us to show that secondary bile acids and *C. hiranonis* aren't just biomarkers of remission, they can actually effect change," Daniel Beiting, senior study author and an assistant professor at Penn Vet told the publication Penn Today. "Bile acids can block the growth of pathogens, and *C. hiranonis* can improve gut health in mice."⁴*

Finally, the researchers analyzed information from children with Crohn's disease (another form of inflammatory bowel disease) who responded to treatment with exclusive enteral nutrition, a specialized liquid diet. They found that the children's microbiomes showed an increase in *Clostridium scindens*, another friendly microbial species that produces secondary bile acids.

Repairing a Dysfunctional GI Tract

The Penn Vet study results are interesting in that they reinforce the importance of a diverse microbiome to the health of dogs, and especially their digestive health. I couldn't agree more with these sentiments. I believe 100% of pets with IBD also have dysbiosis (a leaky gut), which thankfully can now be evaluated with a microbiome analysis.

In this [**interview**](#), Dr. Holly Gantz, co-founder of AnimalBiome and I discuss the benefits of a feeding a diversified, fresh food diet in keeping our pets' microbiomes balanced and resilient and recovering from GI disease. Most veterinarians agree that addressing a dysbiotic microbiome and the profound inflammatory response is the key to healing many chronic enteropathies.

With regard to the Penn Vet study, I don't agree that offering a **feed-grade**, highly processed "prescription" kibble containing hydrolyzed protein is the best approach to achieve improved gut health in dogs with inflammatory bowel disease. Although rendered, feed-grade pet food may improve GI symptoms in some pets, it's worth noting that a third of the dogs in the study didn't achieve remission on the "hypoallergenic" diet.

Researchers are beginning to identify potential systemic consequences, including chronic inflammatory responses, from consuming **advanced glycation end products** found in high-heat processed pet foods (kibble), which may explain why many pets don't improve by switching from one pellet to another.

The traditional dietary recommendation for dogs with IBD, especially those with vomiting or diarrhea, is to feed a homemade, bland diet temporarily until symptoms improve, along with medications or nutraceuticals to manage the vomiting and diarrhea, if needed. The bland diet most veterinarians suggest is ground beef and rice, but it isn't as effective, in my opinion, as the grain-free, highly digestible bland diet I suggest: cooked, fat free ground turkey and 100% canned pumpkin or cooked sweet potato.

Beef is relatively high in fat, which can increase GI upset and exacerbate acute pancreatitis, if also present. Rice is an unnecessary complex carbohydrate that often ferments in the gastrointestinal (GI) tract, causing gas, bloating, and additional irritation before being passed in the stool, undigested, in many cases.

If your dog has been diagnosed with IBD and you're feeding a bland diet, I recommend working with an integrative veterinarian, because after the bland diet, you'll need to choose a novel, balanced, low residue, preferably fresh food diet. A novel (new) diet will give your dog's GI tract and immune system a much-needed rest, and the anti-inflammatory nature of the diet will support healing.

I also recommend asking your veterinarian about **microbiome restorative therapy** (aka fecal microbiome transplants) which is nontoxic, resonates with the body, and can have a profoundly positive effect on your dog's health — not just GI health, but also organ function, immune system function and even behavior.

You and your veterinarian should also discuss appropriate supplements, including specific protocols to balance the microbiome and reseed the gut with healthy bacteria. In addition, there are numerous herbs and nutraceuticals that are excellent in helping to improve digestion and absorption and reduce GI inflammation.

Whether these supplements are introduced before, during, or after a dietary change depends on your dog's individual situation. Transitioning too soon or incorrectly can actually lead to a worsening of symptoms, which is why I strongly encourage you to get professional guidance from an integrative veterinarian well-versed in gut health.

Other environmental and lifestyle factors you should address include future unnecessary vaccines (which I don't automatically recommend) and other veterinary drugs (including the prescribing of dewormers without confirmation of parasites), as well as any potential toxins in your pet's environment or lifestyle that could be contributing to unaddressed inflammation.

The Best Way to Nourish Your Dog's Microbiome

While there are many environmental and lifestyle factors that influence your dog's gut health, as I've already mentioned, the diet you feed has a direct effect on the microbial diversity of the microbiome and is the single most important factor in preventing illness and maintaining wellness.

If you haven't already, I recommend transitioning your pet away from "fast food" (kibble), and instead feeding a nutritionally optimal, species-specific diet, which means human-grade food containing unadulterated, high-quality animal protein, moisture, healthy fats and fiber, with low to no starch content.

A variety of nutritionally complete raw or gently cooked homemade diets is the **top choice for pets**, but only for those pet parents who are committed to doing it right. If you don't want to deal with balancing diets at home, choosing to feed a pre-balanced, commercially available fresh food is a good alternative.

Sources and References

[PetfoodIndustry.com, November 28, 2023](#)

^{1,2} [Vuori, K.A. et al. Scientific Reports, Volume 13, Article number: 1830 \(2023\), published February 9, 2023](#)

³ [Microbiome, Volume 7, Article number: 126 \(2019\)](#)

⁴ [Penn Today, September 9, 2019](#)
