What IS Feline Inflammatory Bowel Disease (IBD)?

According to *Dysbiosis in the Pathogenesis of Pediatric Inflammatory Bowel Diseases*, (Comito and Romano, 2012),

A condition of “dysbiosis”, with alterations of the gut microbial composition, is regarded as the basis of IBD pathogenesis. The human gastrointestinal (GI) microbial population is a complex, dynamic ecosystem and consists of up to one thousand different bacterial species. In healthy individuals, intestinal microbiota have a symbiotic relationship with the host organism and carry out important metabolic, “barrier,” and immune functions. Microbial dysbiosis in IBD with lack of beneficial bacteria, together with genetic predisposition, is the most relevant conditions in the pathogenesis of the pediatric IBD."

Since this was published in 2012, subsequent work has definitively linked alterations in the gut microflora (dysbiosis) to the development of IBD in people. (See information in “Supporting Links” at the end of this document). There are very few studies in cats, but the two examining the microflora of healthy vs IBD cats found significant differences in gut microflora. Please note, we recommend this article be read in conjunction with the Raw Feeding for IBD Cats article, *Probiotics – A Cornerstone of Feline IBD Treatment – Why and Which Ones*.

In cats, many things can contribute to the development of gut dysbiosis. But notably, a species-inappropriate diet that creates changes in the natural pH of the animal likely has an important role. The evidence is only anecdotal at this point, but far too many cats transitioned to a raw diet see their symptoms of IBD (whether vomiting or diarrhea) clear up almost overnight. Notably, the *All Feline Hospital* notes that they “started trying commercial raw food diets with amazing results.” They further state

**We have had cats with confirmed by biopsy IBD that had severe IBD and significant symptoms that had to be on very high doses of steroids just to have some quality of life. Many of these cats had a complete reversal of signs and symptoms by going to an exclusively raw food diet, and were able to either come off of all medications, or at the very least, drastically reduce their medications.**
Basically, whether due to diet, pathogens, over-vaccination, exposure to toxins, overuse of antibiotics, or any of these coupled with a genetic predisposition, cats with IBD undergo changes in the structure of the small intestine that set the stage for chronic diarrhea and/or vomiting, malabsorption, gut dysbiosis (the lack of beneficial bacteria) and leaky gut syndrome.

The gut dysbiosis leads to gut inflammation. The inflammation increases permeability of the intestine wall, allowing toxins (rather than just nutrients) to “leak” through the walls into the bloodstream. This triggers an immune response that can ultimately result in what appears as “allergies” and/or other more serious autoimmune disorders. **This is why we believe that (appropriate!) diet and (appropriate!) probiotics are the cornerstone of effective IBD management.**

Causes of IBD include

- diet
- gut bacterial imbalance (“microflora”)
- GI parasites
- Immune system function
- environment
- certain drugs

According to Dr. Lyn Thomson, writing at the Feline Nutrition Education Society,

> The main hypothesis for the cause and development of human IBD is that there is a dysregulation of the mucosal immune responses to intestinal microflora and/or dietary antigens. This same abnormal immune response to dietary antigens is often suspected in feline IBD.

> ...The important point that seems to have been missed is that it is actually the feeding of a species-inappropriate diet that has led to the rise in inflammatory bowel disease in cats and loss of integrity of the gut wall.

> By feeding cats inappropriately and not recognising them as obligate carnivores, we have damaged their intestinal tracts...

Read more: [Feline Inflammatory Bowel Disease: Nature and Treatment](https://www.felinesociety.com/ibd/index.html), Feline Nutrition Education Society (FNES)

Lyn Thomson, BVSc DipHom March 09, 2012
“Inflammatory bowel disease” is as it sounds: a condition where there are high numbers of inflammatory cells present in the lining of the digestive tract. This inflammation causes structural changes in the mucosal lining: in IBD, so many inflammatory cells can accumulate that they cause thickening of the gut lining, interfering with gastrointestinal motility, absorption of nutrients, and sometimes causing significant weight loss.

Symptoms of IBD can include
- frequent vomiting or intermittent bouts of vomiting
- regurgitating hairballs more than once every two months
- diarrhea or bouts of diarrhea
- constipation
- unexplained weight loss
- variation in appetite and/or nausea
- lethargy

Traditional vet protocol for treating the symptoms IBD include steroids, antibiotics, and/or broad spectrum dewormers – often with little success because these medicines treat the symptoms, they do not address the underlying causes. Many vets do attempt to address diet by recommending novel proteins, hypoallergenic or other prescription diets, but as most commercial diets are replete with potentially problematic ingredients (additives such as carrageenan, guar gum, xanthan gum, etc.) and/or preservatives, many find it impossible to control IBD with that type of diet alone.

Feline IBD is best treated with a healing protocol that addresses all potential contributing factors to the inflammation, starting with a minimally processed, fresh food, species-appropriate diet. Treatment should also include supplement therapy that supports healthy gut flora and immune system regulation. As many vets are not familiar with this approach (or even antagonistic to it), IBD kitty parents often must rely on each other and groups like this to see their kitties thrive again. For more information, please refer to the Raw Feeding for IBD Cats FB group Alternative Protocol for Treatment.

A Note on IBD vs Intestinal Lymphoma

IBD is almost always a diagnosis of exclusion. Actual diagnosis of IBD involves functional GI testing (ultrasound, endoscopy, and/or biopsy). See Is it IBD or Cancer? Diagnosing and Treating IBD vs Lymphoma. Many people opt not to have biopsies done, whether endoscopic or full surgical. There’s nothing wrong with this. But it is important to be aware of a 2014 study published by Dr. Gary Norsworthy and associates. They reviewed the cases of 100 cats with a history of chronic vomiting, weight loss, chronic diarrhea or a combination in JAVMA (Journal of the American Veterinary Medical Association). This review found that 99 of 100 cats had either IBD (“chronic enteritis”) or neoplasia – most often lymphoma. In fact, 49 cats were found to have IBD and 50
found to have neoplasia. Of those 50, 46 had lymphoma. The primary difference was age at the time of diagnosis: older cats were more likely to have lymphoma. So if in the future your kitty’s IBD has been managed, yet begins to experience unexplained weight loss (B12 and folate levels are normal, hyperthyroidism has been ruled out, kidney disease is not present or has been all along, etc.), please discuss adding leukeran (chlorambucil) and prednisolone to the treatment regimen. This chemotherapy combo is usually very well tolerated by cats. Given that almost HALF the time in older kitties “IBD” is actually lymphoma, this treatment course may both improve the quality of life your kitty is living and add years to your kitty’s life. Of course, this is not a substitute for proper nutrition with homemade food or a balanced raw diet and appropriate IBD management with probiotics that contribute to GI healing. This is for use when kitty is failing despite those steps, especially if they had been working.

More on IBD:

All Feline Hospital: Inflammatory Bowel Disease (IBD)

Feline Inflammatory Bowel Disease: Nature and Treatment, Feline Nutrition Education Society (FNES) Lyn Thomson, BVSc DipHom March 09, 2012

Dr. Becker of Mercola

The Hidden Inflammatory Bowel Disease That Threatens Your Pet’s Well-Being 11/2/2010

Feline IBD: The Most Common Cause of Vomiting and Diarrhea in Cats 6/1/2012

The Wrong Way to Treat GI Inflammation 9/24/2012

Supporting Links:


Ritchie, L.E. 2008. Molecular Characterization of Intestinal Bacteria in Healthy Cats and a Comparison of the Fecal Bacterial Flora between Healthy Cats and Cats with Inflammatory Bowel Disease (IBD). MS
Human IBD / Inflammation Research Findings:


**Article:** Chow & Mazmanian 2010. Caltech Biologists Link Gut Microbial Equilibrium to Inflammatory Bowel Disease [http://www.caltech.edu/content/caltech-biologists-link-gut-microbial-equilibrium-inflammatory-bowel-disease#sthash.2URwr4FP.dpuf]


**Article:** Comito, D and Romano C. 2012. Dysbiosis in the Pathogenesis of Pediatric Inflammatory Bowel Diseases, Intl. Jour of Inflammation Vol 2012, Article ID 687143, 7 pages. [http://www.hindawi.com/journals/iji/2012/687143/]


**Article:** Khounlotham et al, Emory News 2013. Immune system compensates for 'leaky gut' in IBD susceptibility. [http://news.emory.edu/stories/2012/09/immune_system_compensates_for_leaky_gut/]


**Article:** Winter et al, UC Davis Health System News 2013. Scientists find key to growth of "bad" bacteria in inflammatory bowel disease. [http://www.ucdmc.ucdavis.edu/publish/news/newsroom/7462]

http://uanews.org/story/putting-the-brakes-on-inflammation