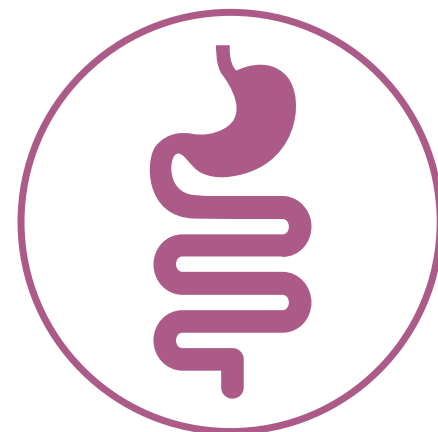


**Gastrointestinal Disorders**

FOOD-RESPONSIVE ENTEROPATHY IN CATS



Feline chronic enteropathy encompasses food-responsive enteropathy, antibiotic-responsive enteropathy, immunosuppressant-responsive enteropathy (i.e., steroid-responsive enteropathy or inflammatory bowel disease) and alimentary small cell lymphoma.¹⁻⁴

Diagnoses as food-, antibiotic- or immunosuppressant-responsive enteropathy may be based on treatment response, histopathological examination of intestinal biopsies, or both.⁵ Feline food-responsive enteropathy includes cats with adverse food reactions (i.e., food allergy and food intolerance), as well as mild intestinal inflammatory conditions that benefit from properties of a different diet.^{2,6}

Cats with food-responsive enteropathy can present with any combination of clinical signs, including diarrhea, vomiting, changes in appetite, weight loss and/or lethargy.^{1,2,7,8} Since these signs are nonspecific and overlap with many other gastrointestinal (GI) and non-GI conditions, dietary elimination trials are recommended for most cats with chronic (≥ 3 weeks) GI signs of mild to moderate severity for which no other causes (e.g., parasites, infectious agents) are identified.^{6,8}

The goal of an elimination diet trial is to provide complete and balanced nutrition while avoiding known allergens or ingredients that cause adverse reactions, intestinal inflammation and/or clinical signs.

Cats whose clinical signs resolve during an elimination diet trial and relapse upon challenge with the original diet (or its components) are classified as having food allergy or food intolerance. Other diet-responsive cats may have mild to moderate intestinal inflammation (e.g., gastritis, enteritis, colitis or enterocolitis) that benefits from the therapeutic aspects of highly digestible food.^{6,8} These cats should be continued on dietary therapy for maintenance of their food-responsive condition.

(continued on next page)

DID YOU KNOW?

Up to 50% of cats with chronic idiopathic GI problems may have a food-responsive enteropathy that benefits from diet modification.²

Key Messages

- Many cats with chronic idiopathic GI signs may be managed simply by changing their diet to a highly digestible, commercial gastrointestinal diet.⁹⁻¹¹
 - High digestibility helps improve nutrient absorption in the proximal small intestine and minimize complications associated with undigested food (e.g., osmotic diarrhea or altered colonic microbiota).¹⁰⁻¹¹
 - Purina studies have shown that diet changes can result in clinical improvement in cats' diarrhea.⁹⁻¹¹
- For cats with suspected food-allergic enteropathy, protein is the nutrient of greatest concern. Hydrolyzed or novel protein diets can be used in these cases, especially if a cat has failed to respond to a highly digestible food.
 - A true food allergy (food hypersensitivity) is an adverse reaction mediated by the immune system following ingestion of food.^{2,6,12-14}
 - In most cases of feline food allergy, the allergen is a dietary protein.^{12,13} Common food allergens in cats are beef, fish, chicken, dairy products and even lamb.¹²⁻¹⁵ Allergies can form to any protein, since allergies are an inappropriate immune reaction to a normal protein.
 - Although a comprehensive diet history is not critical to the selection of a hydrolyzed protein diet, it is necessary to identify a novel protein diet.
- Food intolerance is an adverse reaction to food or food additive in which there is no immune system involvement. Food intolerance can be:
 - a non-immunological response to some component of the diet such as disaccharides (e.g., lactose intolerance)
 - a reaction to the pharmacological effects of a food component (e.g., vasoactive amines converted to histamine by the microbiota)
 - an idiosyncratic response to a food additive or other component (e.g., preservative, food coloring, gelling agent)
- Increased levels of omega-3 fatty acids, which have anti-inflammatory and immune response-modulating effects, may benefit cats with food-responsive enteropathy.^{1,6,10}
- Prebiotics, probiotics or synbiotics may help cats with food-responsive enteropathy by influencing the composition of the GI microbiome.^{6,10,12}
- Exclusive feeding of the recommended diet is essential to managing cats with food-responsive enteropathy, especially if the underlying cause is food allergy or intolerance.
 - Although improvement in dermatological signs often requires a diet elimination trial lasting 8 weeks or longer, improvement in gastrointestinal signs may be seen within 1 to 4 weeks.^{2,6,16}
 - Some cats with food-responsive enteropathy can be transitioned back to their previous diet after their clinical signs resolve while eating a hydrolyzed or novel protein diet.^{6,12} Other cats, however, may need to continue eating a hydrolyzed or novel protein diet for the remainder of their lives.

References

1. Jergens, A. E. (2012). Feline idiopathic inflammatory bowel disease: What we know and what remains to be unraveled. *Journal of Feline Medicine and Surgery*, 14(7), 445–458. doi: 10.1177/1098612X12451548
2. Guilford, W. G., Jones, B. R., Markwell, P. J., Arthur, D. G., Collett, M. G., & Harte, J. G. (2001). Food sensitivity in cats with chronic idiopathic gastrointestinal problems. *Journal of Veterinary Internal Medicine*, 15(1), 7–13. doi: 10.1111/j.1939-1676.2001.tb02291.x
3. WSAVA International Gastrointestinal Standardization Group, Washabau, R. J., Day, M. J., Willard, M. D., Hall, E. J., Jergens, A. E., Mansell, J., Minami, T., & Bilzer, T. W. (2010). Endoscopic, biopsy, and histopathologic guidelines for the evaluation of gastrointestinal inflammation in companion animals. *Journal of Veterinary Internal Medicine*, 24(1), 10–26. doi: 10.1111/j.1939-1676.2009.0443.x
4. Marsilio, S. (2021). Feline chronic enteropathy. *Journal of Small Animal Practice*, 62(6), 409–419. doi: 10.1111/jsap.13332
5. Makielski, K., Cullen, J., O'Connor, A., & Jergens, A. E. (2019). Narrative review of therapies for chronic enteropathies in dogs and cats. *Journal of Veterinary Internal Medicine*, 33(1), 11–22. doi: 10.1111/jvim.15345
6. Gaschen, F. P., & Merchant, S. R. (2011). Adverse food reactions in dogs and cats. *Veterinary Clinics of North America: Small Animal Practice*, 41(2), 361–379. doi: 10.1016/j.cvsm.2011.02.005
7. Al-Ghazlat, S., Eriksson de Rezende, C., & Ferreri, J. (2013). Feline small cell lymphosarcoma versus inflammatory bowel disease: Diagnostic challenges. *Compendium: Continuing Education for Veterinarians*, 35(6), E1–E6.
8. Gianella, P., Pietra, M., Crisi, P. E., Famigli Bergamini, P., Fracassi, F., Morini, M., & Boari, A. (2017). Evaluation of clinicopathological features in cats with chronic gastrointestinal signs. *Polish Journal of Veterinary Sciences*, 20(2), 403–410. doi: 10.1515/pjvs-2017-0052
9. Laflamme, D. P., Xu, H., & Long, G. M. (2011). Effect of diets differing in fat content on chronic diarrhea in cats. *Journal of Veterinary Internal Medicine*, 25(2), 230–235. doi: 10.1111/j.1939-1676.2010.0665.x
10. Laflamme, D. P., Xu, H., Cupp, C. J., Kerr, W. W., Ramadan, Z., & Long, G. M. (2012). Evaluation of canned therapeutic diets for the management of cats with naturally occurring chronic diarrhea. *Journal of Feline Medicine and Surgery*, 14(10), 669–677. doi: 10.1177/1098612X12446906
11. Ramadan, Z., Xu, H., Laflamme, D., Czarnecki-Maulden, G., Li, Q. J., Labuda, J., & Bourqui, B. (2014). Fecal microbiota of cats with naturally occurring chronic diarrhea assessed using 16S rRNA gene 454-pyrosequencing before and after dietary treatment. *Journal of Veterinary Internal Medicine*, 28(1), 59–65. doi: 10.1111/jvim.12261
12. Gaschen, F. P., & Laflamme, D. (2010). Chronic enteropathies—feline. In *Nestlé Purina PetCare handbook of canine and feline clinical nutrition* (pp. 64–65). Nestlé Purina PetCare Company.
13. Bryan, J., & Frank, L. A. (2010). Food allergy in the cat: A diagnosis by elimination. *Journal of Feline Medicine and Surgery*, 12(11), 861–866. doi: 10.1016/j.jfms.2010.09.005
14. Verlinden, A., Hesta, M., Millet, S., & Janssens, G. P. (2006). Food allergy in dogs and cats: A review. *Critical Reviews in Food Science and Nutrition*, 46(3), 259–273. doi: 10.1080/10408390591001117
15. Mueller, R. S., Olivry, T., & Prélaud, P. (2016). Critically appraised topic on adverse food reactions of companion animals (2): Common food allergen sources in dogs and cats. *BMC Veterinary Research*, 12, Article 9. doi: 10.1186/s12917-016-0633-8
16. Roudebush, P., Guilford, W. G., & Jackson, H. A. (2010). Adverse reactions to food. In M. S. Hand, C. D. Thatcher, R. L. Remillard, P. Roudebush, & B. J. Novotny (Eds.), *Small animal clinical nutrition* (5th ed., pp. 609–635). Mark Morris Institute.

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