

**Gastrointestinal Disorders**

INTESTINAL LYMPHANGIECTASIA IN DOGS



Intestinal lymphatic vessel dilatation and lymph leakage into the intestines are characteristics of intestinal lymphangiectasia (IL), one cause of protein-losing enteropathy in dogs.

Lymphangiectasia can be an inherited (primary IL) or an acquired (secondary IL) condition, with secondary IL more commonly reported in dogs.

Leakage of protein-, fat- and lymphocyte-rich lymph into the intestinal tract is typically responsible for the clinical signs of weight loss and chronic diarrhea. Vomiting and anorexia also are common signs. Diarrhea may be persistent or intermittent—or not present at all. Lymphatic vessel dilation alone or in combination with inflammation results in incomplete breakdown and impaired absorption of nutrients. Malnutrition is considered a common, potentially life-threatening complication.

Key Messages

- Feeding a nutritionally balanced, highly digestible, ultra-low- or low-fat diet that provides sufficient calories and protein is important to the management of dogs with intestinal lymphangiectasia. Restricting dietary fat intake reduces intestinal lymph flow, decreases lacteal distention, and minimizes protein loss.
- Low-fat diets are lower in calories. In dogs experiencing severe weight loss, selection of a diet containing C8 and C10 medium-chain fatty acids can provide an alternative energy source that is less likely to contribute to lymphatic congestion.
- The diet should provide enough highly digestible, high-quality protein to replace depleted serum and tissue proteins.
- A hydrolyzed protein or amino acid-based (i.e., elemental) diet, if low in fat, may be appropriate for patients with concurrent lymphangiectasia and chronic enteropathy.

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Key Messages (continued)

- Dogs with lymphangiectasia should be fed small amounts of food 3 to 4 times per day to reduce distention and/or congestion in the GI tract and possibly diarrhea or vomiting.
- Dogs with lymphangiectasia exhibiting small bowel diarrhea should eat a diet with reduced insoluble fiber since this fiber type reduces digestibility and may increase the risk for impaired protein and carbohydrate absorption.
- Prebiotic fiber (e.g., soluble or mixed fiber) in the diet may benefit some dogs through increased production of short-chain fatty acids by the microbiota.

Additional Resources

Davenport, D. J., Jergens, A. E., & Remillard, R. L. (2010). Protein-losing enteropathies. In M. S. Hand, C. D. Thatcher, R. L. Remillard, P. Roudebush, & B. J. Novotny (Eds.), *Small animal clinical nutrition* (5th ed., pp. 1077–1083). Mark Morris Institute.

Gaschen, F. P., & Laflamme, D. (2010). Chronic enteropathies—canine. In *Nestlé Purina PetCare handbook of canine and feline clinical nutrition* (pp. 62–63). Nestlé Purina PetCare Company.

Zoran, D. L. (2010). Lymphangiectasia—canine. In *Nestlé Purina PetCare handbook of canine and feline clinical nutrition* (pp. 66–67). Nestlé Purina PetCare Company.

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