

## How I Manage Chronic Vomiting and Regurgitation

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Diseases of the esophagus and gastrointestinal tract are common reasons for referral to a veterinary nutrition service. These diseases present in a multitude of ways, and their nutritional management will similarly vary between etiologies. For the purposes of this article, I will focus on the nutritional management of chronic vomiting and regurgitation; however, it should be mentioned that there are nutritional interventions appropriate for acute and chronic presentations of any gastrointestinal sign.

Differentiating between vomiting and regurgitation is an important aspect to the medical workup of affected patients, as owners without medical training will likely be unaware of the difference. Vomiting is an active process involving the coordinated efforts of the brainstem, stomach, and diaphragm towards the expulsion of gastric contents, which commonly includes an “abdominal component” as the diaphragm and abdominal musculature contract to assist this process.<sup>1</sup>

Chronic vomiting in dogs and cats can have many etiologies, including primary gastrointestinal disease (ex: chronic enteropathy), chronic pancreatitis, neoplasia (ex: small cell lymphoma), endocrinopathies (ex: hypoadrenocorticism, hyper-/hypothyroidism), or secondary to another disease process (ex: chronic kidney disease). Dietary modification for patients with chronic vomiting is best paired with medical management of the underlying disease, and may not be required if the disease can be adequately controlled through medication administration (ex: hyper-/hypothyroidism). In general, dietary modification for vomiting will prioritize moving ingesta through the stomach quickly and minimizing esophageal reflux or delayed gastric emptying. This is usually achieved through reducing fat and fiber content, as they slow gastric emptying, while increasing protein content to tighten the lower esophageal sphincter and prevent esophageal reflux.<sup>2</sup> If there is concern for an underlying food sensitivity, the use of a novel, hydrolyzed, or elemental protein source could also be considered. Feeding 3-4 small meals per day (ideally 6-8 hours apart) will also help to reduce gastric distension and nausea for affected patients, and should be recommended for all chronically vomiting patients.<sup>3</sup> These modifications of low fat, low fiber, moderate/high protein (+/- hypoallergenic protein sources), and small, frequent feedings can either be instituted all at once or sequentially introduced, depending on patient disease severity, dietary history, and pet owner expectations for therapy.



*Getting a thorough history is critical when evaluating a vomiting or regurgitating patient.*

Regurgitation is the retrograde expulsion of ingesta from the esophagus. The hallmark presentation of regurgitation is its passive nature, lacking the “abdominal component” that vomiting includes. Regurgitation events do not always correlate with mealtimes, and can contain either esophageal contents or a mixture of esophageal contents and gastric fluids that have refluxed into and irritated the esophagus. Causes for regurgitation include pharyngeal/esophageal



Kibble (left) and canned food “meatballs” (right) can be helpful when feeding pets with esophageal motility disorder.

motility disorders (ex: megaesophagus), inflammation (ex: esophagitis, often secondary to vomiting or gastric reflux), and obstructive processes (ex: esophageal strictures following vomiting or esophageal intubation, foreign bodies, vascular ring anomalies, etc.).<sup>4</sup> Nutritional priorities for regurgitation will include small, frequent feedings to minimize the risk of aspirating ingesta, as well as a reduced fat and fiber content with increased protein content to minimize gastric reflux or vomiting recurrence.<sup>2</sup> Diet form is also an important consideration, as dry foods and canned/fresh foods mixed into a larger bolus (“meatball”) will help promote esophageal motility

more than smaller portions of a canned/fresh food.<sup>4</sup> Feeding a patient upright, such as in a Bailey Chair, can also be beneficial to prevent regurgitation in patients with dysmotility disorders.

Through these dietary modifications, I tend to see at least partial improvement in a patient’s clinical signs; however, it is important to note that response to diet modification is a vital component of a nutritional assessment, and given the individual variation seen with chronic vomiting and regurgitation, trial-and-error is commonly required to optimize patient care.

## References:

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