

Proper Timing for Preanesthetic Fasting

Jonathan Miller, DVM, MS, DACVS

*Oradell Animal Hospital
Paramus, New Jersey*

In the Literature

Savvas I, Raptopoulos D, Rallis T. A “light meal” preoperatively decreases the incidence of gastro-esophageal reflux in dogs. *J Am Anim Hosp Assoc.* 2016;52(6):357-363.

FROM THE PAGE ...

The overnight, or *nil per os* after midnight, standard is commonly used to determine the duration of withholding food for presurgical procedures; however, evidence supporting this standard is lacking.

This randomized, prospective study used 120 healthy dogs undergoing elective surgery. Half received their last meal 10 hours before premedication for anesthesia; the other half received their meal 3 hours before surgery. An esophageal pH electrode was used to assess for gastroesophageal reflux (GER) during the surgery.

The results showed a 20% rate of GER with the 10-hour fast and a 5% rate with the 3-hour fast. In >80% of all cases, GER occurred within the first 30 minutes of anesthesia and lasted a mean of 37.15 minutes. GER can lead to clinically significant esophagitis with subsequent regurgitation in addition to potential esophageal stricture formation.

The authors of this study previously showed that the longer 10-hour fast resulted in a lower, more acidic stomach content pH and did not change the volume of stomach contents at the time of anesthesia.¹ A lower gastric pH is known to decrease the lower esophageal sphincter pressure to allow more reflux, thus a shortened fasting time seems prudent.



... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** This study found significantly less gastroesophageal reflux occurred with a 3-hour fast as compared with a 10-hour fast.
- 2** Reflux occurs early in the anesthesia process, which suggests that the procedure duration has less impact on postoperative problems related to GER.
- 3** A shortened fasting time may lead to lower risk for postoperative regurgitation and esophageal stricture.

Reference

1. Savvas I, Rallis T, Raptopoulos D. The effect of pre-anesthetic fasting time and type of food on gastric content volume and acidity in dogs. *Vet Anaesth Analg.* 2009;36(6):539-546.