**Indications for Rumen Surgery**

* **Traumatic reticuloperitonitis (hardware disease)/ Foreign body**

Can occur in mature dairy cows where they don’t differentiate metal or other foreign objects in feed or while grazing. Once ingested the object becomes trapped in the reticulum by its honey comb like reticular mucosa. Contractions of the reticulum can cause penetration of wall by object thereby requiring surgical intervention.

* **Severe bloat**

During fermentation, the rumen can become distended from gases produced which can either be frothy or free gas. In severe cases, a rumenotomy may be done to release rumen contents and relieve pressure.

* **Vagal indigestion**

Results from injury, inflammation or pressure on the vagus nerve or by traumatic reticuloperitonitis.

Type I vagal indigestion, or failure of eructation, results in free-gas bloat and has been attributed to inflammatory lesions

Type II vagal indigestion is due to conditions that prevent ingesta passing through omasal canal into the abomasum.

Type III vagal indigestion results from abomasal impaction due to feeding of dry course roughage with little water available.

Type IV vagal indigestion occurs during gestation due to enlarged uterus shifting the abomasum which can inhibit its emptying.

With all these different causes, surgery is needed to identify and correct the problem by either a rumenotomy and laparotomy.

* **Carbohydrate overload (grain overload)**

By eating large quantities of readily digestible carbohydrates such as grain. A change in microbial population of rumen results in production of lactic acid which drops rumen pH to less than 5 thereby killing protozoa and other organisms. A rumenotomy can be done to remove rumen contents and replace it with healthy ingesta from another animal.

* **Ingestion of large amounts of toxin/ poison**

Free grazing of animals on pasture which is not limited may lead to encounter of toxic substances such as some plants or unsecure storage of toxic substances. In early cases where removal of these substances is necessary, a rumenotomy can be done for safe removal of the toxic compounds.

Links:

<https://www.msdvetmanual.com/digestive-system/diseases-of-the-ruminant-forestomach/traumatic-reticuloperitonitis#:~:text=Traumatic%20reticuloperitonitis%20is%20most%20common,completely%20masticate%20feed%20before%20swallowing>.

<https://www.msdvetmanual.com/digestive-system/diseases-of-the-ruminant-forestomach/grain-overload-in-ruminants?query=Carbohydrate%20overload>