



## Gastric Dilatation Volvulus (GDV)

### Overviews:

GDV, sometimes also referred to as ‘bloat’ is a disease where the stomach is fully filled (foam, air, sometimes with food present) and rotates around. The rotation causes the contents of the stomach to be stuck, and they cannot move out of the stomach, creating severe stretching of the wall. This stretching might damage the wall of the stomach, and the severe extension of the stomach pushes on the lungs and the organs in the belly, leading to issues with breathing, and organ function, respectively. It might also push on the large vessels, creating blood circulation issues.

The stomach can dilate very severely with or without a rotation: the signs and compromise of the other organs might be very similar, and having your pet seen on an emergency basis is indicated. Radiographs are taken to confirm whether the “bloat’ is a gastric dilatation (GD) only or a gastric dilatation volvulus (GDV). But while a bloat without volvulus might be able to be treated without surgery, a GDV is always a surgical emergency.

### Preoperative workup and other diagnostics:

Dogs with GDV are emergencies, and the work up would include:

- General physical examination
- Preoperative laboratory work to determine anesthetic stability
- Abdominal radiographs: to confirm the diagnosis
- Potentially thoracic radiographs – to rule out thoracic disease in older dogs.

### Procedure:

Prior to surgery, the patient is stabilized. This generally entails intravenous fluids, and decompression of the stomach by removing the contents (air/foam). In some cases this is done by passing a tube via the mouth into the stomach, and in other cases, by placing a large sized needle through the skin & body wall into the lumen of the stomach (‘trocarization’).

#### *Surgery*

An incision into the abdomen (belly) is made, and the stomach is derotated (untwisted). After making sure that the stomach is in the appropriate position, the stomach wall is inspected to see if the wall is healthy, and all other organs in the belly are checked. A tube is passed via the mouth into the lumen of the stomach to remove as much of the contents as possible and allow the stomach to deflate.

If the stomach wall appears to be unhealthy enough to lead to a concern of perforation/leakage, a part of the wall might have to be removed. In some parts of the stomach, such as the connection between the stomach and esophagus this cannot be easily done. Sometimes the bloodsupply to the spleen is damaged due to the stomach twisting around, or the spleen gets twisted around as well. If this happens, the spleen might have to be removed (splenectomy). If we find a severe lesion that we cannot safely address, we will call you during surgery to discuss options.

The stomach is pexied (attached) to the body wall to create a permanent adhesion to prevent the stomach from twisting around in the future. The stomach might still fill with air, leading to bloat(ed appearance).

**Complications:**

Any patient with a GDV is at a higher anesthetic risk, due to the stomach pushing on the lungs, organs in the belly and large vessels. These risks include:

- heart arrhythmias: sometimes arrhythmias develop during surgery, and sometimes after surgery. We will monitor your pet's heart rhythm during and after surgery, and treat with medications if needed.
- aspiration pneumonia
- bleeding
- stomach wall compromise
- spleen issues
- surgical site issues, such as infection, dehiscence, seroma.

The emergency doctor and emergency surgeon will discuss these complications in more detail prior to emergency surgery.

**Postoperative Care:**

*In hospital care:* the pet will be monitored closely in our ICU unit during their recovery from anesthesia, this will include monitoring of heart rhythm, pain, and eating. Your pet will receive intravenous fluids and pain medications. We will re-introduce food in small meals.

*At home care:*

- Leash walks/exercise restriction for the first 10-14 days after surgery to allow all the incisions to heal.
- feeding small quantities of food, spread out over the day will be recommended.

Additional feeding instructions will be provided at time of discharge.

**Prognosis:**

In some pets a dilation (without rotation) might still occur, and there is a ~10% rate reported in the literature (across all gastropexies) for the pexy to fail to create a persistent adhesion.