



GDV in Dogs

Quick take

GDV is a true emergency: the stomach balloons with gas/food and twists, blocking outflow, cutting off blood supply, compressing major veins, and rapidly causing shock. Immediate hospital care, surgery to untwist and secure the stomach (gastropexy), and intensive monitoring are the standard of care.

With modern and prompt treatment, about 70–85% of dogs survive to discharge; survival is highest when treatment is fast and gastric tissue is still healthy.

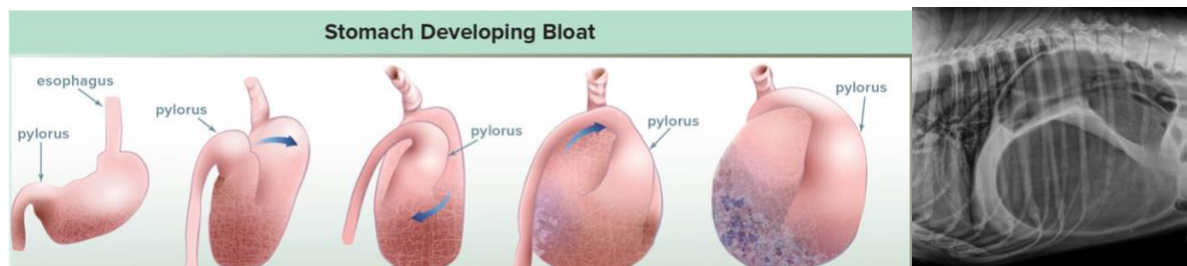
Prophylactic treatment using gastropexy can prevent development of this aggressive condition.

1) What's going on inside (pathophysiology)

The bloated, twisted stomach obstructs blood return to the heart, reduces cardiac output, and can injure the stomach wall and spleen; toxins then surge when blood flow returns (reperfusion injury). Shock and dangerous heart arrhythmias are common.

Who's at risk? Large, deep-chested breeds (e.g., Great Dane, Standard Poodle, German Shepherd), older age, fast eating, single large daily meals, family history; raised bowls may increase risk.

At-home red flags: sudden non-productive retching, unproductive vomiting, distended/firm abdomen, restlessness, drooling, collapse—go now to emergency care!



2) Emergency stabilization (what happens on arrival)

Time is the essence ... Prompt stabilization is needed in order to avoid development of the hypovolemic shock. Locate the closest veterinarian with the staffing to manage this condition 24/24!

Rapid IV fluids, pain relief, oxygen, stomach decompression (orogastric tube or trocar), bloodwork and lactate check, ECG monitoring.

X-rays confirm diagnosis and help plan surgery: no advanced imaging is typically needed.

3) Definitive treatment = surgery

Done **as soon as your dog is stable** enough for anaesthesia.

Steps the surgeon takes:

- 1) Explore the abdomen, untwist the stomach (detorsion), and check stomach and spleen.



- 2) Remove dead stomach wall (partial gastrectomy) and/or splenectomy only if tissue is devitalized.
- 3) Gastropexy (permanently tacking the stomach to the body wall) to prevent re-twist.

Techniques include incisional (common), circumcostal, belt-loop, or minimally invasive/laparoscopic-assisted—each effective when properly performed. Laparoscopic-assisted gastropexy only applies in a prophylactic type of surgery and cannot be used in the emergency situation.

Why gastropexy matters: Without it, recurrence can be very high (up to ~80%); with gastropexy, recurrent GDV falls to <5% (not zero).

When is it important to have an experienced surgeon:

4) Complications (and typical rates)

Numbers vary with how sick a dog is on arrival, surgical findings, and hospital protocols.

- **Overall survival after surgery:** commonly **70–85%** (ranges across centres and case mix).
 - o In-hospital mortality in surgical cases: often ~**10–30%** in older series;
 - o modern cohorts frequently report ~**15–20%**; gastric necrosis, persistent high lactate, and need for gastrectomy/splenectomy worsen prognosis.
- **Cardiac arrhythmias** (usually ventricular): common post-op (~40–70%) → continuous ECG 24–48 h; many are transient and treated medically (e.g., lidocaine).
- **Aspiration pneumonia, hypotension, acute kidney injury, DIC, GI ulceration/ileus:** recognized systemic risks in severe GDV/shock.
- **Recurrence after gastropexy:** low; studies note **near-zero to ~4%** depending on technique/follow-up.

5) Recovery & aftercare (what to expect)

- **Hospitalization** 1–3+ days for fluids, ECG, pain meds, anti-nausea drugs, antibiotics as indicated. Gradual re-feeding with small, frequent meals.
- **Home:** strict rest for 10–14 days, incision care, slow meal plan, and meds as prescribed. Most dogs resume normal activity in a few weeks, though full stamina may take longer after severe shock/necrosis.
- Commonly dogs can develop recurrence of the of gastric dilation (not torsion) and get bloated. This is due to the initial injury to the muscles in the gastric wall and a failure to resume a normal motility. This is a reason why rest and small meals, small drinks are needed in order to avoid overloading the stomach until the muscles resume their contractile function.

6) Preventing first-time GDV or a repeat episode

- Prophylactic gastropexy (often laparoscopic-assisted) at spay/neuter or later for at-risk breeds/families—substantially reduces lifetime GDV risk.
- Feeding/behaviour tips: multiple smaller meals, slow-feeder bowls, avoid vigorous exercise right around meals, manage anxiety. (These reduce risk but don't guarantee prevention.)



7) Useful questions for your vet visit

- “How sick is my dog now (lactate/ECG/necrosis risk)?”
- “Which gastropexy technique will you use and why?”
- “What’s this hospital’s survival rate for GDV?”
- “Should my other deep-chested dog get a prophylactic gastropexy?”

Selected references

- 1) ACVS client guide: Gastric Dilatation-Volvulus (clear overview for owners).
- 2) Cornell Canine Health Center: GDV risk factors and prevention tips.
- 3) dvm360 review (Mazzaferro, 2021): prognosis, lactate guidance, survival 70–80%.
- 4) Beck et al., JAVMA 2006: surgical mortality commonly 15–33%; risk factors.
- 5) Sharp et al., 2014/2020: cardiovascular/systemic effects; mortality timing patterns.
- 6) Ward 2003; Mann 2023; Veterinary Evidence 2023: gastropexy effectiveness; recurrence <5% but not zero.
- 7) Bruchim 2014: postoperative management; arrhythmias, AKI, DIC, aspiration.
- 8) MSU CVM notes: arrhythmias 40–70% in first 24–48 h → ECG monitoring.

Bottom line

GDV is a time-critical, fixable emergency. Rapid stabilization + surgery with gastropexy saves most dogs and greatly reduces the chance of it ever happening again. Know the signs, seek care immediately, and talk with your vet about prophylactic gastropexy if your dog is deep-chested or has a family history and is undergoing an abdominal surgery.

Although this surgery is commonly performed by most veterinarians, there are frequent situations for which a more complex surgery is needed (such as partial gastrectomy or splenectomy) and a strong experience of your surgeon will be needed.