

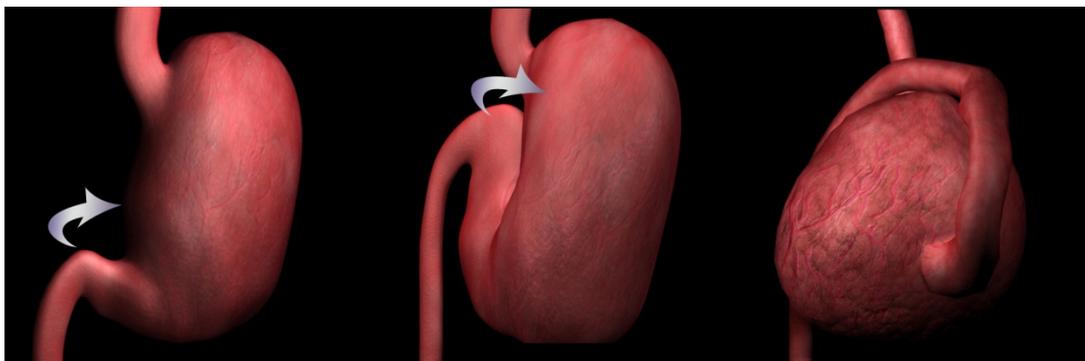
Gastric torsion



What is a gastric torsion (or gastric dilation and volvulus)?

A gastric torsion is a medical emergency that requires immediate surgical intervention. This condition is often seen in large breed dogs with deep chests like Great Danes, Dobermans, Saint Bernards, Standard Poodles, Labrador retrievers, etc. It is possible, albeit rarely seen, in small breed dogs and in cats. Affected animals are often middle aged, but this condition can occur at any age.

An excessive accumulation of air, food or liquid in the stomach causes its dilation, which can in turn cause a rotation of the stomach; this is what we commonly call a gastric torsion. The rotation occurs usually in a clockwise direction, and can result in a $\frac{1}{4}$ to $\frac{3}{4}$ turn of the stomach. (approximately 90 to 270 degrees).



Stages of stomach torsion

A dilated stomach will compress important blood vessels, preventing the blood from circulating normally in the body. Vital organs (stomach, kidneys, heart, pancreas, etc) will be deprived of blood causing tissue death and a release of harmful molecules (body waste) into the bloodstream, and this will worsen the pet's condition. An animal suffering from a gastric dilation and volvulus (gastric torsion) is at risk of dying within a few hours if not treated appropriately. Consequently, time is of the essence if we want to attempt to save your pet.

What are the predisposing factors?

- 🐾 Large breed dogs, especially the deep chested ones (lower part of the chest is below the abdomen, as in the Standard Poodle and the Great Dane).
- 🐾 Physical activity after a meal: swimming, running, etc.



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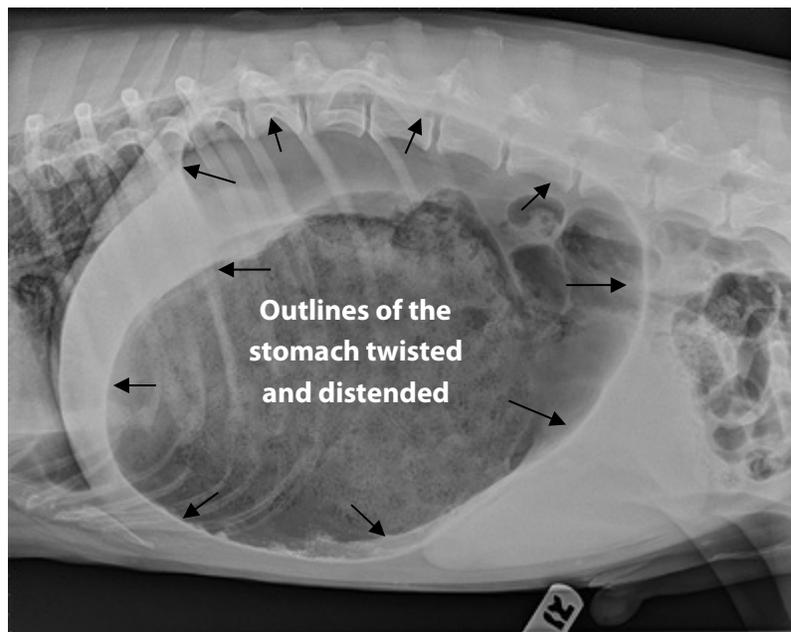
- 🐾 A large meal.
- 🐾 The daily food requirement given as a single meal once a day.
- 🐾 Gastro-intestinal problems (vomiting, etc).
- 🐾 Etc.

How can I know if my pet has a gastric torsion?

- 🐾 Repeated and non-productive writhing
- 🐾 Excessive drooling
- 🐾 Distended and hard abdomen
- 🐾 Abdominal pain
- 🐾 General weakness
- 🐾 Agitation and/or discomfort
- 🐾 Etc.

If you see these signs in your pet, you need to see a veterinarian immediately!

The diagnosis of a gastric dilation/volvulus is made with a right lateral abdominal x-ray (pet laying on the right side).



How is a gastric dilation/torsion treated?

The animal needs to be stabilized as optimally as possible, as soon as possible

- 🐾 An intravenous (IV) catheter is necessary to begin IV fluid therapy immediately. An IV catheter is therefore installed as soon as your pet is admitted.

- 🐾 Injectable pain medications are given.
- 🐾 Injectable antibiotics are started.
- 🐾 An orogastric or nasogastric tube (from the mouth to the stomach or from the nose to the stomach respectively) can sometimes be necessary to release the air from the stomach and decompress it.

A gastrocentesis or trocarization (a catheter or needle that we insert through the skin into the dilated stomach to try to decompress it) can be performed if needed and if the orogastric and nasogastric intubation did not work. Your pet will be transferred to the operating room as soon as they are deemed stable enough to undergo surgery.

The surgery consists of repositioning the stomach to its normal position, and suturing it to the abdominal wall to try and prevent another torsion from happening. This procedure is called a **gastropexy**. Although the preceding steps seem to be independent and dissociated from one another, they actually are not and occur almost all at the same time.

Are there complications related to the surgery?

- 🐾 As in any surgery, there is an inherent anesthetic risk with the intervention. Although significant anesthetic complications are rare if the pet is well stabilized prior to surgery, they can still happen.
- 🐾 DIC (disseminated intravenous coagulation), can cause one or many organs to fail and induce coagulation problems that can lead to the pet's death.
- 🐾 Septic peritonitis (infection of the abdomen). Although rare, it is a possible complication.
- 🐾 Cardiac arrhythmias can occur and may require special medications in an attempt to prevent them because they can place these patients at risk for heart muscle failure or death.
- 🐾 Chronic dilations of the stomach.
- 🐾 Recurrences can occur although very rarely (about 1% of cases).

Can we decrease the risk of a gastric dilation/torsion?

- 🐾 The recommended daily intake of food should be spread throughout the day into 2 to 3 meals, instead of a single large meal.
- 🐾 Physical activity should be avoided for about 1 hour before and after meals.
- 🐾 Feed your pet in a calm environment. Feed your dogs separately if you have more than one so they will eat more slowly.
- 🐾 Water should be available at all times, but you should limit the quantity offered right after a meal. Do not let your dog drink a large amount of water at a single time.
- 🐾 Avoid any causes of stress during the hours before and after meals.
- 🐾 Try to pick food that your dog will need to chew well in order to slow down the speed with which it eats (choose large kibbles, for example).
- 🐾 Predisposed breeds can benefit from a preventive gastropexy.

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