

Gastric Dilatation Volvulus: This Life-Threatening Emergency Kills 30% of the Dogs It Afflicts

It can develop extremely fast (as little as 20 minutes till shock sets in). Yet the first signs of trouble can be subtle. Unfortunately, she won't survive this life-threatening emergency without surgical intervention. Find out whether your dog is predisposed, and be ready to act fast.

Analysis by [Dr. Karen Shaw Becker](#)

STORY AT-A-GLANCE

- Gastric dilatation volvulus (GDV), or "bloat," is a life-threatening condition that primarily affects large and giant-breed, deep-chested dogs
- GDV occurs when the stomach bloats due to a buildup of air and gas, and then twists around on itself, impeding blood supply to internal organs
- Dogs at high risk for GDV are certain large and giant breeds, those fed primarily dry dog food, indiscriminate eaters, and dogs who are exercised or given large quantities of water right after eating
- Symptoms of a GDV emergency requiring immediate veterinary care include a bloated stomach, and retching or vomiting

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If you've never heard of a condition in dogs called gastric dilatation volvulus (GDV), you may have heard it referred to simply as "bloat." However, the technical name is quite descriptive of what's actually happening when this condition strikes. It affects the stomach (gastric), which bloats (dilatation), and then often twists or rotates (volvulus).

If your dog has simple bloat, or gastric dilatation, his stomach has filled up with gas and air but hasn't rotated or twisted. Gastric dilatation volvulus is when the bloated stomach twists around on itself, squeezing off the blood supply, and setting the stage for serious injury to other internal organs.

GDV is a life-threatening emergency, and sadly, about 30% of the time, dogs with the condition do not survive. It's critically important that a pet who is suspicious for GDV be seen by a veterinarian immediately.

Dogs at Highest Risk of GDV

The cause of GDV isn't well understood, however, it is most commonly seen in older, large, and giant breed deep-chested dogs that often have relatives with GDV in their lineage. Other markers for the condition include:

- The breeds most commonly diagnosed with GDV include the Great Dane, Basset Hound, Saint Bernard, Doberman Pinscher, Weimaraner, Old English Sheepdog, Irish Setter, German Shorthaired Pointer, Gordon Setter, Newfoundland, Standard Poodle, and German Shepherd

- Some studies suggest that elevated food dishes increase a dog's risk, but there are those who believe elevated dishes actually help to prevent the problem. In my opinion it's not so much about the dog's bowl as how fast he eats. Dogs that gobble their food and swallow air in the process are in my experience at higher risk for GDV
- Other dietary habits considered to be risk factors for GDV include eating large amounts at each meal, eating just once a day, exercising shortly after a meal, drinking large quantities of water right after eating, and being in a stressful situation right after eating
- Dogs fed primarily dry kibble are at significantly increased risk for GDV according to a 2012 published in the Journal of the American Veterinary Medical Association¹
- Another 2012 study found that gastric foreign bodies are a significant risk factor for GDV.² A gastric foreign body is defined as:

"[N]ondigestible or slowly digestible material palpated during gastrointestinal tract examination that was causing clinical signs or was > 10 cm in length or > 2 cm in width."

Gastric foreign bodies are the result of indiscriminate eating

- Other suspected risk factors include increased gastrin concentration (gastrin is a hormone that controls release of acid in the stomach); decreased stomach motility and delayed gastric emptying (meaning food stays in the stomach longer than normal); and removal of the spleen

Symptoms of Gastric Dilatation Volvulus

Many of the very first signs of GDV in a dog can be subtle, including an anxious look, focusing on the abdomen, standing and stretching, panting, and drooling.

If your dog has simple bloat without the twisting action, she should be able to relieve the pressure by belching. But if she has GDV, there's no way she can expel the gas and air from her stomach because both the entry and exit are pinched shut.

Signs that your dog is most likely suffering from GDV include a very distended abdomen filled with air; unproductive belching, retching or vomiting, obvious abdominal pain that inhibits her movements, restlessness, and a rapid decline in her condition accompanied by shallow, rapid breathing and pale gums.

GDV can quickly become a serious systemic issue because the bloating of the dog's stomach puts pressure on blood vessels, inhibiting their ability to pump properly. Pressure on the diaphragm makes breathing difficult, and when the stomach twists on itself, blood circulation is further inhibited.

Toxins begin to be released into the bloodstream and blood flow back to the heart is compromised. This can put your dog in a state of shock in as little as 20 minutes to an hour after the volvulus develops.

It's likely you won't be able to tell whether your pet has simple bloat or bloating with volvulus, so since GDV is a life-threatening emergency, you should get her to your vet's office or an emergency animal hospital right away.

If possible, administer homeopathic Belladonna, Nux Vomica, or Carbo Veg (depending on your dog's specific symptoms) on the way to the vet to help reduce rapid progression of the emergency.

Without urgent veterinary care, the stomach will ultimately rupture and cause peritonitis, a fatal abdominal infection. The most important factor in saving GDV patients is the time that elapses between presentation of symptoms and surgery. This is why I can't stress enough the importance of getting your dog immediate veterinary care if you suspect bloat or GDV.

GDV Diagnosis, Treatment, and Aftercare

Veterinarians diagnose GDV with x-rays. Patients are first stabilized with IV fluids and oxygen, and an attempt is made to move the accumulated gas and fluid out of the stomach.

Once your dog is stabilized, he'll undergo anesthesia and surgery to untwist the stomach and tack it to the inside of the abdominal wall in a procedure called a gastropexy. This will prevent recurrence of GDV.

During the surgery, the dog's stomach should be checked for damaged areas that may need to be removed as the result of poor blood circulation. Sometimes the spleen is also torqued and must be untwisted. Occasionally, the spleen may need to be removed if it has been significantly damaged.

Antibiotics are usually given to address bacteria that leak into the bloodstream from the damaged intestine. There can also be blood pH and electrolyte disturbances that must be corrected. If irregularities in the heart rate are occurring they must be carefully managed, and the kidneys may also need to be monitored.

Your dog will not be able to exercise for the first one to two weeks after surgery, and should be fed a bland diet in small meals along with frequent small amounts of water. Acupuncture may be beneficial in managing pain and supporting the return of normal contractions of the stomach and intestine. Laser therapy may also be helpful to speed healing and reduce pain around the incision site.

Steps You Can Take to Help Prevent GDV in a High-Risk Dog

- Feed a species-appropriate diet with no grains or other fermentable carbohydrates, and if your dog "wolfs" her food, feed two to three smaller meals a day vs. one large meal.
- Slow down the speed at which your dog eats by offering food from a Brake-Fast slow feed bowl.
- Make sure the food you're feeding contains no preservatives, GM ingredients, or citric acid, and add probiotics and digestive enzymes to assist in digestion and assimilation of food.
- Don't exercise your dog for an hour after he eats, and also withhold large amounts of drinking water during that time.
- Be very careful not to allow your dog to have recreational bones, dental chews, toys, or other foreign objects that are difficult or impossible to digest.
- Minimize stress on your pet. Make sure she is well exercised (though not right after meals, as I've discussed). Most large breed dogs need lots of daily physical activity to maintain muscle tone and range of motion, decrease cortisol levels, and relieve boredom. You'll also want to keep vaccines to a minimum to reduce immunologic stress, and limit the amount of chemicals your pet is exposed to orally, topically, and in the environment.
- Some veterinarians recommend gastropexy in high-risk dogs as a way to prevent GDV. The procedure is usually performed at the same time the pet is spayed or neutered. My first recommendation would be to try

to prevent GDV with the right diet and other lifestyle choices. However, if your dog is a breed prone to the disorder and eats a primarily dry food diet, gastropexy may be your best option.

Sources and References

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¹ [Journal of the American Veterinary Medical Association, June 15, 2012, Vol. 240, No. 12, Pages 1456-1462](#)

² [Journal of the American Veterinary Medical Association, November 1, 2012, Vol. 241, No. 9, Pages 1190-1193](#)
