

Gastric Dilatation and Volvulus

by Jackie Pozniak, DVM

What is gastric dilatation and volvulus?

Gastric dilatation and volvulus (GDV) is an acute, life threatening disorder seen in certain breeds of dogs. GDV is a medical and surgical emergency in which the stomach dilates with air (dilatation) and twists on itself (volvulus).

What breeds are at greatest risk for GDV?

Breeds at greatest risk for GDV include the Great Dane, Doberman, Bloodhound, Irish Wolfhound, Irish Setter, Akita, Standard Poodle, German Shepherd and Boxer. St. Bernards, Rottweilers, Bernese Mt. Dogs, Labrador Retrievers, Golden Retrievers, and Basset Hounds are also frequently affected. While these represent the most common breeds that we see with GDV, any deep-chested dog, including mixed breeds and small dogs like Dachshunds can develop GDV.

What are the symptoms of GDV?

The most common clinical signs of GDV are retching without being able to vomit, increased salivation, restlessness, and pacing. Your dog may also bite and/or stare at his/her abdomen, show respiratory distress, have a distended abdomen or seem weak and depressed. If your dog is exhibiting many of these symptoms, **IT IS IMPERATIVE THAT YOU CONTACT US OR AN EMERGENCY CENTER IMMEDIATELY!**

Why is GDV such an emergency?

With dilatation the stomach is distended with fluid, food and swallowed air. This stage of the disease is called "bloat." Volvulus occurs if the stomach then rotates on itself. When this happens, both the entrance and exit from the stomach are sealed off and blood flow to the stomach is severely limited. Because of the poor blood flow, the tissues of the stomach can die off (necrosis). Since the spleen shares connective tissue with the stomach, it will often rotate along with the stomach. This again limits blood flow and the spleen becomes engorged with blood. The stomach tissue continues to dilate and puts extreme pressure on the major vessel that returns blood from the abdomen to the heart. This complication can cause heart failure and death within hours.

What risk factors predispose a dog to GDV?

Dr. Glickman at Purdue University's School of Veterinary Medicine identified the following risk factors for GDV in a controlled study:

- Dogs with deep and narrow chest cavities. (This is by far the greatest risk because it increases the room in which the stomach has to move.)
- Lean Dogs (Less fat also gives more room for the stomach to move.)
- Older Dogs (The risk goes up 20% each year after the age of 5 for large breeds, and 20% each year after 3 for giant breeds.)
- Dogs with a first-degree relative that has had GDV.
- Dogs that eat quickly.
- Fearful, nervous or aggressive dogs.
- Stress
- Dogs that eat/drink from an elevated surface. (Elevated feeding used to be recommended to help prevent GDV, but it actually increases the risk slightly.)
- Feeding only dry food.

- Feeding a single large meal per day
- Feeding dry foods that contain fat as one of the first four ingredients.
- Moistening a dry food that contains citric acid prior to feeding it.
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Along these same lines, certain practices were found to decrease the risk of GDV:

- Feeding dry food containing rendered meat or bone meal as one of the first four ingredients.
- Mixing table food or canned food with dry.

The following factors had no influence on the incidence of GDV:

- Exercise before or after eating.
- Vaccination.
- Brand of food.
- Timing of water intake in relation to eating.
- Volume of water intake in association with eating.

What should I do if I believe my dog is starting to bloat?

Call us or a veterinary emergency center immediately. Next, give your dog Maalox Max. Other brands of medication that can be used include Gas-X and Phazyme. Keep one of these medications on hand, but make sure they contain simethacone. Simethacone may help to break up gas in the early stages of bloat.

Doing acupressure on your dog may help to expel some of the gas if he/she is in the early stages of GDV. Run your hand up the front of your dog's shinbone between the ankle and knee. As you reach the top of the bone near the knee, you will feel a bony crest that curls around to the outside of the leg. Just behind the crest on the outside of your dog's leg is a depression. This is the spot that you should massage.

While simethacone and acupressure may help, the most important thing that you can do for your dog is to get him/her to a veterinary hospital for emergency treatment immediately. If you are having a difficult time giving the medication or trying to find the acupressure point, don't waste time, just bring your dog to veterinary hospital immediately.

How is Bloat or GDV treated?

Your dog will be treated with large amount of IV fluids and we will attempt to pass a stomach tube to relieve the gas pressure. Pain medications will be given, x-rays will be taken, and other medications may be given. All dogs will need surgery to tack their stomach to their abdominal wall (gastropexy). If your dog's stomach has already twisted, surgery will need to be done right away. The surgery will not only treat your dog's current condition, but will prevent it from happening again. In dogs that have bloated, but do not have a twisted stomach, surgery is still necessary. While your dog may not need surgery right away, it will need to be done within a couple days of bloating. 76% of dogs with this problem will bloat again if surgery is not done.

Many experts recommend doing a gastropexy on healthy dogs that are predisposed to developing GDV as they get older. The surgery will prevent those dogs from developing GDV, but they may still be able to bloat without getting a twisted stomach. We can do this surgery at the same time of your pet's spay or neuter.

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