

# Bloat/Torsion

Dr. Karen Becker discusses the frightening and deadly condition known as bloat, or twisted stomach. Learn whether your dog is a high risk breed, what signs to look for, what to do if you suspect GDV, and steps you can take to help prevent the condition.

GDV, or gastric dilatation volvulus, is a condition seen in dogs also known as twisted stomach or bloat.

Not all dogs that experience stomach bloating end up with volvulus, which is torsion (twisting) of the stomach. A dog's stomach can fill up with gas and air and stay in position.

GDV describes a condition of [bloating in conjunction with the stomach twisting on itself](#), which pinches off the blood supply and causes a host of other dangers to the animal's health.

This is absolutely a life-threatening condition. There's a 30 percent mortality rate associated with GDV. If you have a breed of dog at high risk for the condition, you should know the signs and symptoms. It is imperative you get your pet to a veterinarian immediately if you suspect a case of bloat.

## Signs and Symptoms to Watch For

The signs your dog may have GDV are not subtle and include:

- Bloating, in which your dog's belly grows very big with air.
- Episodes of unproductive belching, retching or vomiting. Your dog's body is trying to expel air collected in his stomach.
- Intense abdominal pain that can prevent the dog from moving around.
- Initial restlessness followed shortly by a moribund (close to death) condition.
- Shallow, rapid breathing and pale gums.

If you see any of these symptoms in your dog, you should get him to your vet or an emergency animal clinic immediately.

If you're unsure if it's simply bloat or bloat with stomach torsion, you should still take immediate action and get your dog to a vet. The only way to tell the difference between simple bloating and GDV is with an x-ray. Due to the high mortality rate associated with GDV, it's much better to be safe than sorry, so get your pet seen right away.

A dog with simple bloat can relieve himself through belching. Puppies, for example, tend to eat their food very quickly and swallow lots of air in the process. Their tummies become bloated and they belch to relieve the pressure. Sometimes they even throw up. Their stomachs return to a normal size as they expel all that excess air and gas.

If your dog has full GDV, it means both the entry to and exit from the stomach have been pinched off by the torsion. There's no way your pet can expel the air built up in his belly.

Your dog's spleen is attached to the greater curvature of the stomach. When the stomach twists on itself, it [pinches off the blood supply to the spleen and splenic vessels](#).

When the abdominal vessels are pinched closed, blood flow to the abdominal organs stops and blood flow back to your dog's heart is greatly reduced. This can result in a state of shock in which the gums go pale, breathing is rapid and shallow, and there can also be loss of consciousness. This can all happen very quickly, in as little as 20 minutes to an hour after GDV occurs.

If your dog doesn't get immediate veterinary care, the stomach will ultimately rupture and he will develop peritonitis, a fatal abdominal infection.

I can't stress enough how important it is that you get your dog to a vet immediately if you suspect GDV.

### **Risk Factors for GDV**

Unfortunately, the risk factors for gastric dilatation volvulus are widely variable. Veterinary professionals get into frequent heated debates about what risks truly apply to the condition.

The bottom line is we don't know every single reason why dogs bloat. It's important you understand that as a pet owner, you can do everything right and your precious pup might still develop GDV.

- **Certain dog breeds seem more prone to GDV than others.** The 12 breeds most likely to develop the condition include:

Great Dane	Basset Hound
Saint Bernard	Doberman Pinscher
Weimaraner	Old English Sheepdog
Irish Setter	German Shorthaired Pointer
Gordon Setter	Newfoundland
Standard Poodle	German Shepherd

- Generally speaking, **dogs with deep, narrow chests seem more prone to bloat and GDV.**
- A study of canine bloat conducted by Purdue University School of Veterinary Medicine in 2000 revealed that 50 percent of dogs fed from elevated food dishes developed GDV. Of course, advocates of elevated food dishes responded that the other 50 percent not eating from elevated dishes also acquired the condition. In any event, it seems **the height of your dog's bowl may play a role in GDV.**

- In my opinion, what's more important is **how fast your dog eats**. If she wolfs down her meals and swallows lots of air in the process, it can be a significant contributing factor to the development of GDV.
- **The type of food you feed your pet can also be a contributor**. The majority of kibble (dry food) on the market contains carbohydrates like corn, wheat, rice, soy and oatmeal. These carbs are highly fermentable, and fermentation produces gas.

Fermentable carbohydrates can be considered a side effect of feeding your dog a non-species appropriate diet. Dogs don't have a dietary carbohydrate requirement. The more carbs you feed to an animal with no requirement for them, the more gas they will produce.

If the gas can be expelled, there's less risk. But if the gas becomes trapped in your dog's stomach, then in theory, your dog will be more prone to develop bloat.

So my recommendation is to [feed your pet a species-appropriate diet](#). This will insure your dog has less fermentation of food in her stomach, and therefore less risk of gas accumulation and bloat.

- **Exercising your dog right after meals** is considered a contributing factor to GDV.
- **Allowing your pet to drink a large amount of water after eating** is also a no-no.

### **At the Vet's Office or Emergency Animal Clinic**

When you bring your dog to your vet's office or an emergency animal hospital, the doctor will establish an IV line to assist with blood pressure regulation and to administer medications to help combat shock and pain.

The next step for the vet will be to try to release the air in your dog's stomach either with an esophageal tube inserted through the mouth, or by inserting a trocar (a long, sharp needle) into the stomach to relieve the pressure and prevent rupture.

X-rays will be taken to determine if your pet's stomach is simply bloated or if there's a volvulus. If the stomach is twisted, as soon as your dog is stable he'll require surgery to repair the twist and sew his stomach in place to prevent recurrence.

If your dog doesn't have surgery to untwist the stomach, he will die. Unfortunately, there is also risk of death during surgery because as the stomach is untwisted, it can cause what are known as reperfusion injuries. These are injuries incurred as blood flow is re-established to the vital organs, and can include palpitations and electrical abnormalities in your dog's heart, as well as blood crises.

So there is a critical peri-operative and post-operative period from the time your pet goes into surgery through several days after surgery during which your dog is at risk of dying from the condition.

## Preventing Bloat/GDV in Your Dog

One of the most important things you can do to prevent a high-risk breed from developing GDV is to feed a species-appropriate diet containing no grains or other fermentable carbohydrates.

Especially if your dog is one of the high risk breeds or has experienced bloating in the past, you want to feed two or three smaller daily meals rather than one large one.

Don't exercise your dog right after a meal, and withhold large amounts of water for an hour after eating. Give your pet's body time to process the food she has consumed and then offer water in small amounts.

If yours is a multi-dog household, sometimes competition can cause one or more of the dogs to eat too quickly. There are things you can do to slow a gobble down.

Try spreading the food out on a cookie sheet. You can also invest in a type of [bowl designed to slow down eating](#). Try putting your dogs in separate rooms to reduce the competition among them at mealtime.

A slower, more even rate of food consumption will help reduce the amount of air your dog swallows, thereby reducing the opportunity for bloat.

## Stress and GDV

Lastly, you'll want to minimize stress on your pet.

I firmly believe the biological, metabolic, environmental, physiological and immunologic stressors a dog undergoes contribute to a susceptibility to bloat.

One of the best ways to reduce all forms of stress is to [make sure your pup is getting sufficient daily exercise](#) – but not right after eating, as I discussed earlier. Your dog needs to move her body to maintain muscle tone and range of motion. Physical activity will also help decrease her cortisol levels and facilitate optimal body function.

Keeping the number of vaccines your dog receives to a minimum is also extremely important. [Over-vaccinating can bring on a tremendous amount of immunologic stress.](#)

[Reducing the amount of chemicals](#) you put into and on your dog will also help manage immunologic stress and the detoxification processes than can tax your pet's body.

You should also [review all the ingredients in the food you feed your pet](#). Eliminating preservatives, emulsifiers, citric acid load, FD&C colors and any other additives that aren't critical to your dog's optimal health will reduce nutritional stress.

Taking all these factors into consideration and making changes as necessary to your dog's diet and lifestyle can significantly reduce the risk of GDV.

Having knowledge of the signs to look for, the seriousness of the condition, and the quick action you must take will help you save your pet's life in the event she develops the condition.