Bloat is a very serious health risk for many dogs, yet many dog owners know very little about it. **According to the links below, it is the second leading killer of dogs, after cancer.**

It is frequently reported that deep-chested dogs, such as German Shepherds, Great Danes, and Dobermans are particularly at risk. This page provides some information on bloat and summarises some of the key points we found in the sites we researched. Although we have summarised information we found about possible symptoms, causes, methods of prevention, and breeds at risk, we cannot attest to the accuracy. **Please consult with your veterinarian for medical information.**

**If you believe your dog is experiencing bloat, please get your dog to a veterinarian immediately! Bloat can kill in less than an hour, so time is of the essence. Call your vet to alert them you're on your way with a suspected bloat case. Better to be safe than sorry!**

The technical name for bloat is "Gastric Dilatation-Volvulus" ("GDV"). Bloating of the stomach is often related to swallowed air (although food and fluid can also be present). It usually happens when there's an abnormal accumulation of air, fluid, and/or foam in the stomach ("gastric dilatation"). Stress can be a significant contributing factor also. Bloat can occur with or without "volvulus" (twisting). As the stomach swells, it may rotate 90° to 360°, twisting between its fixed attachments at the esophagus (food tube) and at the duodenum (the upper intestine). The twisting stomach traps air, food, and water in the stomach. The bloated stomach obstructs veins in the abdomen, leading to low blood pressure, shock, and damage to internal organs. The combined effect can quickly kill a dog.

*Be prepared!* **Know in advance what you would do if your dog bloated.**

◆ If your regular vet doesn't have 24-hour emergency service, know which nearby vet you would use. Keep the phone number handy.

◆ Always keep a product with simethicone on hand (e.g., Mylanta Gas (not regular Mylanta), Gas-X, etc.) in case your dog has gas. If you can reduce or slow the gas, you've probably bought yourself a little more time to get to a vet if your dog is bloating.
This information is not intended to replace advice or guidance from veterinarians or other pet care professionals. It is simply being shared as an aid to assist you with your own research on this very serious problem.

Symptoms

Typical symptoms often include some (but not necessarily all) of the following, according to the links below. Unfortunately, from the onset of the first symptoms you have very little time (sometimes minutes, sometimes hours) to get immediate medical attention for your dog. *Know your dog and know when it's not acting right.*

◆ Attempts to vomit (usually unsuccessful); may occur every 5-30 minutes
  *This seems to be one of the most common symptoms & has been referred to as the "hallmark symptom".*
  *"Unsuccessful vomiting" means either nothing comes up or possibly just foam and/or mucous comes up.*
  *Some have reported that it can sound like a repeated cough.*

◆ Doesn't act like usual self
  *Perhaps the earliest warning sign and may be the only sign that almost always occurs.*
  *A common tale in dogs that bloated asked to go outside in the middle of the night. If this is combined with frequent attempts to vomit, and if your dog doesn't typically ask to go outside in the middle of the night, bloat is a very real possibility.*

◆ Significant anxiety and restlessness
  *One of the earliest warning signs and seems fairly typical.*

◆ "Hunched up" or "roached up" appearance
  *This seems to occur fairly frequently.*

◆ Lack of normal gurgling and digestive sounds in the tummy
  *Many dog owners report this after putting their ear to their dog's tummy.*
  *If your dog shows any bloat symptoms, you may want to try this immediately.*

◆ Bloated abdomen that may feel tight (like a drum)
  *Despite the term "bloat," many times this symptom never occurs or is not apparent.*

◆ Pale or off-color gums
  *Dark red in early stages; white or blue in later stages*

◆ Coughing
◆ Unproductive gagging
◆ Heavy salivating or drooling
◆ Foamy mucous around the lips, or vomiting foamy mucous
◆ Unproductive attempts to defecate
◆ Whining
◆ Pacing
◆ Licking the air
◆ Seeking a hiding place
◆ Looking at their side or other evidence of abdominal pain or discomfort
◆ May refuse to lie down or even sit down
◆ May stand spread-legged
◆ May curl up in a ball or go into a praying or crouched position
◆ May attempt to eat small stones and twigs
◆ Drinking excessively
◆ Heavy or rapid panting
◆ Shallow breathing
◆ Cold mouth membranes
◆ Apparent weakness; unable to stand or has a spread-legged stance
  *Especially in advanced stage*
◆ Accelerated heartbeat
  *Heart rate increases as bloating progresses*
◆ Weak pulse
◆ Collapse

### Causes

According to the links below, it is thought that the following may be the primary contributors to bloat. To calculate a dog's lifetime risk of bloat according to Purdue University's School of Veterinary Medicine, click here.

<table>
<thead>
<tr>
<th>Stress - Dog shows, mating, whelping, boarding, change in routine, new dog in the household, etc.</th>
<th>Although purely anecdotal, we've heard of too many cases where a dog bloated after another dog (particularly a 3rd dog) was brought into the household; perhaps due to stress regarding pack order.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities that result in gulping air</td>
<td>Eating habits, especially...</td>
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<tr>
<td>- Elevated food bowls</td>
<td>- Eating dry foods that contain citric acid as a preservative (the risk is even worse if the owner moistens the food)</td>
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<td>- Rapid eating</td>
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<td>- Drinking too much water too quickly (can cause gulping of air)</td>
</tr>
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<td>Exercise before and especially after eating</td>
<td>Heredity</td>
</tr>
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<td>- Especially having a first-degree relative who has bloated</td>
<td>- Dogs who have untreated Exocrine Pancreatic Insufficiency (EPI) are considered more prone to bloat</td>
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*Gas is associated with incomplete digestion*
Build & Physical Characteristics
- Having a deep and narrow chest compared to other dogs of the same breed
- Older dogs
- Big dogs
- Males
- Being underweight

Disposition
- Fearful or anxious temperament
- Prone to stress
- History of aggression toward other dogs or people

Prevention

Some of the advice in the links below for reducing the chances of bloat are:
◆ Avoid highly stressful situations. If you can't avoid them, try to minimize the stress as much as possible. Be extra watchful.
◆ Do not use an elevated food bowl
◆ Do not exercise for at least an hour (longer if possible) before and especially after eating
◆ Do not permit rapid eating
◆ Feed 2 or 3 meals daily, instead of just one
◆ Do not give water one hour before or after a meal
  *It dilutes the gastric juices necessary for proper digestion, which leads to gas production.*
◆ Always keep a product with simethicone (e.g., Mylanta Gas (not regular Mylanta), Phazyme, Gas-X, etc.) on hand to treat gas symptoms.
  *Some recommend giving your dog simethicone immediately if your dog burps more than once or shows other signs of gas.*
  *Some report relief of gas symptoms with 1/2 tsp of nutmeg or the homeopathic remedy Nux moschata 30*
◆ Allow access to fresh water at all times, except before and after meals
◆ Make meals a peaceful, stress-free time
◆ When switching dog food, do so gradually (allow several weeks)
◆ Do not feed dry food exclusively
◆ Feed a high-protein (>30%) diet, particularly of raw meat
◆ If feeding dry food, avoid foods that contain fat as one of the first four ingredients
◆ If feeding dry foods, avoid foods that contain citric acid
  *If you must use a dry food containing citric acid, do not pre-moisten the food*
◆ If feeding dry food, select one that includes rendered meat meal with bone product among the first four ingredients
◆ Reduce carbohydrates as much as possible (e.g., typical in many commercial dog biscuits)
◆ Feed a high-quality diet
◆ Feed adequate amount of fibre (for commercial food, at least 3.00% crude fibre)
Add an enzyme product to food (e.g., Prozyme)
Include herbs specially mixed for pets that reduce gas (e.g., N.R. Special Blend)
Avoid brewer's yeast, alfalfa, and soybean products
Promote an acidic environment in the intestine
Some recommend 1-2 Tbs of Aloe Vera Gel or 1 Tbs of apple cider vinegar given right after each meal
Promote "friendly" bacteria in the intestine, e.g. from "probiotics" such as supplemental acidophilus
Avoids fermentation of carbohydrates, which can cause gas quickly. This is especially a concern when antibiotics are given since antibiotics tend to reduce levels of "friendly" bacteria. [Note: Probiotics should be given at least 2-4 hours apart from antibiotics so they won't be destroyed.]
Don't permit excessive, rapid drinking

And perhaps most importantly, know your dog well so you'll know when your dog just isn't acting normally.

Breed at Greatest Risk
Breeds most at risk according to the links below:

- Afghan Hound
- Airedale Terrier
- Akita
- Alaskan Malamute
- Basset Hound
- Bernese Mountain Dog
- Borzoi
- Bouvier des Flandres
- Boxer
- Bullmastiff
- Chesapeake Bay Retriever
- Collie
- Dachshund
- Dalmation
- Doberman Pinscher
- English Springer Spaniel
- Fila Brasileiro
- Golden Retriever
- Gordon Setter
- Great Dane
- German Shepherd
- German Shorthaired Pointer
- Great Pyrenees
- Irish Setter
- Irish Wolfhound
- King Shepherd
- Labrador Retriever
- Miniature Poodle
- Newfoundland
- Old English Sheepdog
- Pekinese
- Rottweiler
- Samoyed
- Shiloh Shepherd
- St. Bernard
- Standard Poodle
- Weimaraner
- Wolfhound
- Sighthounds
- Bloodhounds
Links

- Bloat - the life threatening canine emergency - Overall summary of high-risk factors
- Canine Gastric Dilatation-Volvulus (Bloat) - From Purdue University School of Veterinary Medicine
- Meteorological influence on the occurrence of gastric-dilation volvulus - Purdue University School of Veterinary Medicine study
- Bloat: Strikes in Minutes, Kills in Hours - Excellent pdf for educational purposes
- Bloat: The Mother of All Emergencies - Statistics and clear medical explanations.
- On My Soapbox - A commentary on the Purdue studies
- Bloat and Torsion: Is Nutrition a Factor? - Explores nutritional factors
- Bloat & Allergies: The Relationship to Yeast Overgrowth and/or Pathogenic Bacteria
- Prevention of Bloat and Torsion in Dogs - Maintains avoidance is possible in high-protein diets with raw meat that avoid carbohydrates
- Gastric Volvulus and Dilatation (Stomach Bloat) - Excellent description from a medical perspective. Detailed descriptions, photos, and drawings.
- Understanding Bloat and Torsion - Lots of good information and advice
- Bloat First Aid - Describes the stages and associated symptoms
- Bloat First-Aid Kit - May help those who are unable to get to a veterinarian
- How to Tube Your Dog - May help those who are unable to get to a veterinarian
- Signs of Bloat - Many first-hand descriptions by dog owners of the symptoms they observed
- Overview of Gastric Dilatation-Volvulus (GDV) - Provides an overview of GDV.
- Gastric Torsion in Dogs
- Bloat (Gastric Dilatation & Volvulus)
- Feeding Regimen and Bloat
- Bloat - A Medical Emergency
- Bloat During Recovery from Anaesthesia
- GDV - Animal Health Channel
- Bloat and Torsion - GDV
- Gastric Torsion - Bloat in Dogs
- Canine Bloat and Temperament
- GDV (a veterinary surgeon's perspective)
- Homeopathic information

Information adapted from an article written by GlobalSpan.net using the references above. Although we have summarised information we found from the links, we cannot attest to the accuracy. Please consult with your veterinarian for medical information!