

Raised bowls: a good practice or a time bomb?

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If you have had an Irish Wolfhound for more than 20 years, you have most likely brought your puppy home with the recommendation to feed it in an adjustable raised bowl. This advice was based on the belief that feeding from an elevated bowl reduced the chances of your dog having GDV (gastric dilatation-volvulus) or 'Bloat'. Unfortunately, nothing is ever that simple. In the early 2000s, a large epidemiological study of GDV1 conducted by Dr. Glickman of the University of Perdue notes, among several other possible causes, a correlation between the risk of stomach torsion and elevated bowls. Since this is a correlation without plausible explanations, this aspect of the statistical study has never been re-evaluated in other studies, that bowls are only one of several other risks, supported by several scientific research and especially that there are advantages to raised feeding, it is always relevant to ask the question. Are raised bowls a suitable option for the sometimes-special situation of my dogs? Let us see the pros and cons of raised bowls for food and water.

The Pros

Easy access to food and water facilitates the transit of food from the mouth to the stomach. Indeed, dogs tend to raise their heads to facilitate ingestion. As they do not have to bend over, they can maintain better posture and a more comfortable position when eating and drinking.

Better posture reduces stress on the neck, back and joints. Aging dogs tend to suffer from arthritis and osteoarthritis, therefore leaning over to reach their bowl of water and food becomes extremely painful. Raised bowls releases the pressure on bones and joints and helps reduce inflammation. An injury can also be a great reason to elevate the bowls.

Other medical conditions such as Megaesophagus (widening of the esophagus) can be better managed by using a raised bowl thus allowing food and water to reach the stomach without the risk of regurgitation and vomiting 'choking'.

Raised bowls are more hygienic because they reduce the



“sloppy” behaviour of some dogs who like to play with their bowls, especially if they slide on the floor, or, even more fun, put their paws in the water bowl.

The Cons

This is where research is complicated; in fact, there is only one serious reason not to use raised bowls and that is the possibility of an increased risk of stomach torsion or Bloat and there is only one serious study that suggests it.

Torsion begins with the excessive accumulation of gas in the stomach, which becomes distended, and can rotate, causing the closure of both ends and the compression of blood vessels and other organs. It is a fatal medical condition if not treated urgently. All dog owners must be aware of the clinical signs of Bloat.

The exact causes of Bloat are not fully understood. Researchers have been interested in the issue for several decades, especially after a steady increase of reported cases in all breeds during the 1980s and 1990s, probably related to the advent of dry food replacing leftovers, and other types of unprocessed food. The vast majority of studies are epidemiological studies where researchers are trying to establish statistical correlations between different factors.

The correlations most frequently reported in scientific articles and published in specialized journals, related to the animal itself, are of a physiological and psychological nature.

- The typical portrait of the dog most at risk for one or more episodes of Bloat is a dog with a narrow, deep chest. It is rather thin, without layer of fat on the ribs.

- An anxious, stressed and sometimes aggressive dog. He has at least one dog who has suffered a Bloat episode in his immediate family.
- He is an excessively fast eater.
- The risk of swelling and twisting of the stomach increases with age.

Strong correlations link dry food and increased risk under certain conditions;

- The food is dry and without added fresh or canned food
- It contains fat among the first 4 items listed on the bag and is moistened
- It is preserved with citric acid and is moistened.

If fed in one meal the quantity of kibble is more important than the calorie count per cup. The volume is therefore important and the cause that would be associated with this link would be that a large amount of food draws the stomach down and stretches the gastric hepatic ligaments.

There does not seem to be a correlation between exercise before or after meals, when to drink before or after eating, or with vaccination.

Finally, two studies included as variables in their statistics the height of the bowls. The oldest and most authoritative is the University of Perdue. More than 1000 dogs including 11 large and giant breeds whose medical history did not contain an episode of GDV were enrolled in an epidemiological study, which lasted 5 years. Its authors, Glickman et al. concluded that an increased risk of GDV is attributed to elevated bowls. The risk varies depending on whether dogs are large or very large. The height of bowls for other types of dogs does not induce any increased statistical risk. However, the height of the bowls reduces the risk from higher to lower if large dogs eat in bowls lower than 30cm while the opposite is noted in giant dogs. There are no causes or explanations for these findings. Like any epidemiological study, this study has some gaps. First, it seems that the owners of the dogs have chosen to belong to the group with or without elevated bowls. This twist in the random distribution brings a bias, because who knows, the choices could be dictated by underlying medical conditions such as a sore neck or other orthopaedic problem. The 5-year term can also bring defections or withdrawals of dogs from groups, which changes the equitable representation. Science has its limits and it is always good to doubt a little, especially when no study has taken the results and retested them again.

The second study dates back to 2012 and involved more than 1114 dogs that had suffered from one or more episodes of Bloat. Despite the impressive cohort, this survey-based report does not detail survey questions and answers to raised bowls, and responses were processed for all breeds. It concludes that there is no correlation between raised bowls and the risks of Bloat.

This conclusion, however, is not supported by numbers, but rather is presented at the end of the publication. Treating all breeds together can reduce the risk for larger breeds.

As can be seen, risk studies associated with raised bowls are unclear. However, it is not uncommon to see results of research or studies conclude their publications with different or even opposite results. Some argue that raised bowls, because they are more comfortable and that access to food or water is facilitated would encourage fast eaters to become super fast. It's a hypothesis...

It may be interesting to add a parameter to a future study such as raised bowls designed to slow the speed of eating.

It's up to you to evaluate the advantages and risks of raised bowls for your own animals, according to their health conditions, and with regard to all other parameters that could increase their risk of torsion.



Quick Reference Guide For GDV			Vet's Emergency Telephone Number...	
SEE EMERGENCY CONTACT SHEET				
	What Is Happening	What The Dog Does	What You Should Do	Treatment
Stress >>> Excitement >>> Vigorous Exercise >>> Large Meals >>> Long Drink >>> Swallowed Air >>> Familial Tendency >>>	Stomach function is normal.	Dog behaves as usual.	Keep the dog quiet. Do not leave the dog alone. Give Antacid if your vet agrees.	During this period the dog may recover without going on to develop Gastric Volvulus.
	Gas accumulates in the stomach but the stomach does not empty as it should.	Seems slightly uncomfortable.	Be aware of Phase I symptoms.	
	Stomach starts to dilate. (Gastric Dilatation)	Anxious, restless, pacing; Trying to vomit-may bring up stiff white foam but no food; Salivating; Abdomen may be swollen.	Call your vet, tell him what you suspect and why.	During this period the dog may recover if your vet releases the pressure with a stomach tube.
PHASE I GDV	Stomach twists. (Gastric Volvulus)		Take the dog to the vet without further delay.	
	Blood supply to part of stomach is cut off. Stomach tissue is damaged. Portal vein, vena cava and splenic vein become compressed and twisted. Spleen becomes engorged. Shock begins to develop.	Very restless; whining & panting; Salivating copiously; Tries to vomit every 2-3 min; Stands with legs apart & head hanging down; Abdomen swollen & sounds hollow if tapped; Gums dark red; Heart rate 80-100 beats/min; Temperature raised (104°F)	Get someone to tell your vet you are on your way and why.	During this period the vet will need to relieve the stomach pressure, start an intravenous drip and perform surgery to untwist the stomach.
PHASE II GDV	Spleen and stomach tissue become necrotic. Shock now very severe.	Unable to stand or stands shakily with legs apart; Abdomen very swollen; Breathing shallow; Gums white or blue; Heart rate over 100 beats/minute; Pulse very weak; Temperature drops (98°F)	Get someone to tell your vet you are on your way and why.	As well as doing everything above, the vet will need to remove part of the stomach and the spleen. He will also need to use powerful drugs to counteract shock.
PHASE III GDV	Heart failure develops. Shock now irreversible. Death.		Take the dog to the vet as quickly as possible.	It is no longer possible to save the dog's life.

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