



# Dairy Details

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Editor: Lindsey Borst DVM

NORTHERN VALLEY DAIRY PRODUCTION MEDICINE CENTER

## Abomasal Bloat in Calves

Every cattle producer knows what the word “bloat” means. Any bloat can be deadly in cattle. Each type of bloat requires a different type of treatment to be successful.

This month we’re going to talk about abomasal bloat. It is very different than rumen bloat. The abomasum is referred to as the “true stomach” of a ruminant’s four-compartment digestive system. From birth to 2 weeks of age, the abomasum comprises about 70% of a calf’s digestive system and about 50% by 6 to 8 weeks. Digestion in the abomasum is very similar that of the human stomach. Abomasal bloat only occurs in baby calves. The abomasum becomes very distended with a lot of fluid and a little gas.

Signs of abomasal bloat can include:

- Big, “sloshy” stomach
- Painful belly and grinding teeth
- Weak
- Poor appetite
- Scours

We don’t yet know the exact cause of abomasal bloat. There seems to be multiple factors involved, many of which are preventable with good management practices.

Just like cows, calves like a daily routine that never changes. Keeping your calf feeding routine as consistent as possible is an important key in preventing abomasal bloat.

Feeding consistency means feeding calves at the same times every day. Milk needs to be fed at the same temperature and consistency. Ideally, we should strive to feed milk as close to the calf’s body temperature as possible. Meaning, in the winter it should probably be higher than body temperature (~110°F) when it leaves the barn, especially if going to calves in outside hutches. Cold milk has two major disadvantages. Bacteria loves to grow in cold milk. Calves also use precious energy in the winter when they have to warm milk in the stomach before they can digest it. Osmolality is a term used to describe the concentration of a solution. It can also be a factor in abomasal bloat. When mixing milk replacers, it is important to mix the correct ratio of powder to water so osmolality remains constant. If osmolality is too high, milk is slower moving out of the abomasum. That gives bacteria more time to grow and multiply in the stomach, leading to bloat. A brix refractometer can be used to measure osmolality, or the solids in milk.

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Other possible risk factors for abomasal bloat include:

- Not offering water to calves
- High bacteria counts in milk
- Cold stress
- Tubing milk or electrolytes (If you have to tube a calf with milk or electrolytes, try to keep the volumes small ( $\leq 2$  quarts))

Treatment success often depends on how soon calves with abomasal bloat are detected. Even if they do respond to treatment and recover, these calves will often have “chronic stomach issues” and may be on and off milk for an extended period of time. It seems to take the abomasum a long time to return to normal. Work with your veterinarian to develop a treatment protocol for your farm.

Treatments usually include:

- **Aggressive fluid therapy:** Give either under the skin or IV. These calves are often very dehydrated and septic with bacteria in their bloodstream. 3- 5 liters of sterile water with bicarbonate and lactated ringers will help hasten recovery.
- **Oral and IM/SQ Antibiotics:** There is often a large amount of bacteria growth in the abomasum. This is why oral and injectable antibiotics are needed. For example, penicillin can be given orally. But, this is an extra label drug use and does require special directions from a veterinarian.
- **Oral and SQ Clostridium Antitoxin:** Clostridium is the main bacteria found in abomasal bloat cases. Antitoxins negate some of the toxins that this bacteria releases.
- **Stomach Protectant:** Sucralfate and Kaolin Pectin are the most common ones used. Sucralfate is a tablet that is given twice a day on an empty stomach. This will help the lining of the stomach heal faster.
- **DO NOT TUBE:** These calves often have poor stomach motility. Fluid will stay in the abomasum longer than normal, meaning more time for bacteria to grow. Tubing milk or electrolytes can exacerbate this problem. Do not tube for at least 24 hours after you’ve diagnosed a calf with abomasal bloat.

## NEW YEAR’S COW COLORING CONTEST!

Would you like to have the chance to win \$25 while you pretend to be a kid again?!? Enter Northern Valley’s Inaugural Cow Coloring Contest! A picture was included in this month’s bill and more copies can be picked up at our office or feel free to make your own copies. We want to fill our office with colorful cows for the New Year! Research shows that coloring is good for mental health and isn’t just for kids anymore. We encourage you to color one yourself, and encourage your employees to do so as well. We’re excited to see your artistic works!

We’ve also included a kid’s picture to color! (Feel free to color this one if you find the other adult picture has too many lines for you 😊) We will pick a kid’s coloring contest winner too! Submit your colored cows to the office by the end of January.



Everyone in our office will be participating in the contest as well. We are especially excited to see what Dr.’s Bennet and Nigon come up with for their colored cow!

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