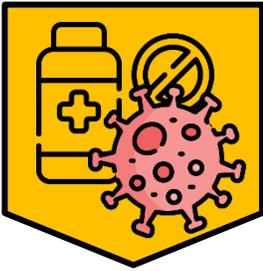


Navel Infections in Beef Calves

A Guide for Beef Cattle Producers

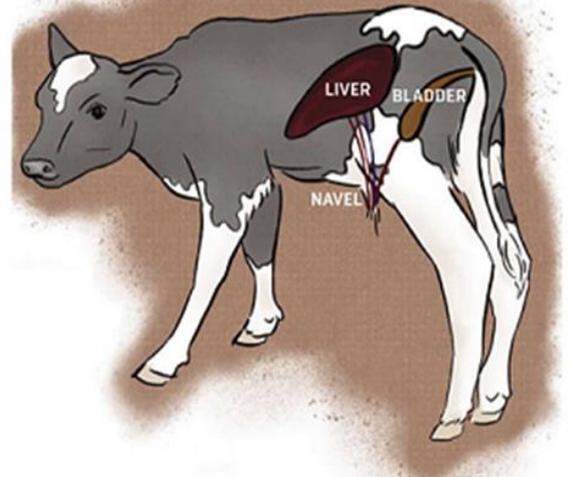


In the Western United States, 5% of cattle operations reported at least one case of navel infection in calves on cow-calf operations according to the USDA's National Animal Health Monitoring System. This costly health issue is likely to be more prevalent as identifying cases without handling the calf is difficult.

What is a navel infection and what causes it?

The umbilical cord connects the growing fetus to the placenta in the womb.

- ❑ The umbilical cord allows for the transfer of nutrients from the dam to the fetus and for waste products to leave the fetus.
- ❑ During calving, the umbilical cord ruptures and the remaining tissues dry and fall off within a few days.
- ❑ Before the drying process is complete, the umbilicus is a potential entry point for disease-causing bacteria into the calf's body.
- ❑ Depending on the type, number, and timing of bacteria that gain access through the navel, an infection may result.
- ❑ Navel infections can lead to swollen tissues localized to the navel region (umbilical abscess), or they can result in more widespread infections, leading to swollen joints, infection of the liver, or cause a whole-body infection called *septicemia* (aka "navel ill").



What are the risk factors for navel infections in beef calves?

- ❑ **Failure of Passive Transfer (FPT)**
 - Consuming at least 5% of their body weight of good quality colostrum twice in the first 12 hours of life is a good rule of thumb to prevent FPT in calves.
 - See a separate handout: “Failure of passive transfer (FPT) in cow-calf herds: How to manage and assess FPT in a beef herd” for more information.
- ❑ **Hygiene**
 - Calves that are born in a clean, dry environment have a smaller risk of developing navel infections than those that are born in muddy, contaminated environments.
- ❑ **Density of Dams on a Calving Pasture**
 - The higher the density, the higher the risk for newborn exposure to disease-causing organisms (called “pathogens.”)

What are the signs of navel infections in beef calves?

Navel infections usually occur during the first one or two weeks and up to four weeks of life. Check dams and calves at least twice a day during the calving season and while calves are under two weeks old.

- ❑ Swelling of the navel area, with or without discharge in the form of pus. (Note: Swelling may not always be obvious, especially when observing calves from afar.)
- ❑ If a calf seems painful with an arched back and taking short steps.
- ❑ Calves may appear listless with reduced appetite.
- ❑ Swollen joints.

What to do if you suspect a navel infection in a calf...

- Navel infections typically require treatment with antibiotics and pain control as prescribed by your veterinarian.
- Sometimes more invasive procedures such as draining, flushing, or surgical removal of tissues may have to be performed by the veterinarian.
- Occasional cases of navel infection may be unavoidable, but if you see multiple cases a year, talk to your veterinarian about ways to control them.
- You may need to evaluate your calving area and/or your colostrum management to reduce cases in the future.

How can navel infections be prevented?

- Good colostrum management and hygiene practices (mentioned below) can reduce the risk of navel infections.

NAVEL DIPS

- Dipping the umbilicus shortly after birth to disinfect the cord remnants and speeding up the drying of tissues is commonly practiced, especially in the dairy industry. Note- research is conflicting as to the usefulness of this procedure, therefore, catching calves just for the purpose of navel dipping may not be worth the added stress.

□ **Available Products**

- The product most tested, 7% iodine tincture, is difficult to obtain due to regulations of sale of this product.
- It is important to understand that other iodine products, such as teat dips, Betadine (Povidone-Iodine) solution or scrub, are not the same. The iodine content of those products is less, and they do not contain any alcohol, which acts as a drying agent.
- Several products are marketed for navel dipping in calves that will disinfect the navel, but it is unknown which of these products is preferable. Some of the navel dips may look like they are 7% iodine tincture, but they are not. Super 7 Ultra Navel Care by Vetericyn contains no iodine (the active ingredient is sodium hydroxide), Triodine-7 by Durvet has 7% active ingredient, only one of which is iodine.

□ **Hygienic Practices**

- Do not use the same teat dipping cup for the entire calving season as it may start harboring bacteria that can be spread from calf to calf.
- Using disposable paper cups is a good way to keep dip and delivery equipment clean.

Summary:

1. Monitor calves for signs of navel infection (arched back, short steps, decreased appetite)
2. If more than one or two cases of navel infection occur, re-evaluate colostrum management and calving hygiene and consider a navel dip.
3. Consult a veterinarian for treatment of individual cases with navel infections and how to reduce cases in the future.

This document was made in collaboration with the following organizations:

