

# Calving Ease

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By Sam Leadley of Attica Veterinary Associates



## Preventing Navel Infections

- **How often do navel infections occur?**
- **What are the consequences of navel infections?**
- **What are cost effective alternatives to reduce the rate of treatable cases of navel infections?**

### How often do navel infections occur?

It depends. National studies suggest the rate may be close to fifteen percent of calves retained on the farm as replacement animals. Smaller studies suggest a wider range varying from five to twenty percent.

It depends. Are calves observed to see if there is an infection present? During a study involving eighteen farms, vet college staff examined 410 heifer calves weekly (Virtala & Others, JDS 79). They felt of each navel area once a week for eight weeks in a row. They were looking for painful navels and/or thickening of the abdominal wall. They found fifty-seven calves with navel infections (fourteen percent infection rate).

In this study it was the owners' responsibility to diagnose and treat sick calves. Of these fifty-seven calves with navel infections the owners diagnosed only seven cases. That is correct. In this study **eighty-eight percent of the navel infections identified by the research staff were neither diagnosed nor treated by the owners!**

Wisconsin School of Veterinary Medicine veterinarian Dr. Sheila McGuirk suggests this observation protocol:

“We encourage you to routinely screen **all** of your calves between 5 and 7 days of age. As the examiner gently compresses the skin of the navel at the point where it enters the abdomen, the umbilical stalk can be slipped between the thumb and fingers to reveal any enlargement (diameter greater than ½ inch), discharge, odor or pain.” (emphasis added)

The bottom line in answering the question of “How often do navel infections occur?” is to touch the calf. Unless there is a protocol for routinely placing your hand on the belly of the calf around one week of age there is a good chance that two-thirds or more of infections will not be diagnosed early.

## What are the consequences of navel infections?

The consequences of navel infections depend, in part, on how early the infections are diagnosed and treated. However, in general it has been well documented that significant navel infections are associated with:

- Increased rates of umbilical hernias
- Increased rates of other diseases, especially respiratory illness
- Increased rates of death
- Decreased rates of growth
- Decreased rates of herd survivorship

## What are cost effective alternatives to reduce the rate of treatable cases of navel infections?

1. Allow spontaneous rupture of umbilical cord. Biochemical exchanges begin at the time of rupture that act to protect the calf from infection.
2. Provide a clean calving environment. Yes, now and again a calf will be born in the mud next to the water tank in the pasture or in the free-stall alley. However, well-managed calving means that as many calves as possible are born in a clean environment. Our biggest risk is adult cow manure – so plenty of clean bedding or a clean grass pasture reduce that risk.
3. Move the calf away from adult animals as soon as she is breathing well and licked off. The longer she remains with the dam and/or other cows the greater the risk of bacterial exposure to the ruptured umbilical cord. However, be cautious about pens for newborn calves. Sometimes they are not well-maintained. These “hell-holes” can have sky-high bacteria levels and simply serve to be sure that all calves are equally exposed to near-lethal doses of pathogens.
4. Navel disinfection. Spray or dip the cord with a commercial navel dip. If the dairy has a good examination protocol for identifying navel infections and the rate is less than five percent then dipping navels might not be cost effective. But, that is a big IF – unless infection rates are well documented, just buy product and dip all the navels.
5. Do a good job of colostrum management. The data are clear – navel infection rates are significantly higher among calves with passive transfer failure due to poor colostrum management than among calves with strong passive immunity.

References: A.M. Virtala and Others, “The effect of calthood diseases on growth of female dairy calves during the first 3 months of life in New York State.” Journal of Dairy Science 79:1040-1049. A.M. Virtala and Others, “Morbidity from nonrespiratory diseases and mortality during the first 3 months of life in New York State.” JAVMA 208:2043-2046. Sheila McGuirk, “See Many Infected Navels,” Veterinary Column in Hoard’s Dairyman.

**Remember to search for “Calves with Sam” blog for profit tips for calf rearing.**