

Calf scours or diarrhea is a common disease that causes economic losses in the first few weeks of life. In its most severe form, it can cause severe dehydration and death in 12-24 hours.

There are many causes which include: bacterial (*Escherichia coli*, *Salmonella*, *Campylobacter* sp.), viral (rotavirus, coronavirus), and intestinal parasites (*Cryptosporidium parvum*). Calves with diarrhea can become dehydrated very quickly if they cannot take in enough fluids to replace the losses. The diarrhea can also lead to life-threatening electrolyte (salt) imbalances and energy depletion.

The calf's attitude, suckle response/appetite, and hydration status need to be assessed when deciding whether treatment is needed.

Dehydration can be evaluated by pulling the skin up ("tenting") on its neck or shoulder. In dehydrated animals, the skin remains "tented" for an extended time, the longer the time period the more severe the dehydration. Dehydration also causes the calf's mouth to become dry and eyeballs to sink away from the eyelids. Calves that are bright, alert and still nursing well may not need to be treated, but should be observed as they can become dehydrated rapidly.

The foundation of treatment is to replace the electrolyte and fluid losses. If the calf is depressed but still nursing, this can be done by providing a special oral electrolyte solution. Tap water will not work since it does not contain the electrolytes or energy that the calf needs.

A calf that is extremely dehydrated, weak, recumbent, and/or has lost its suckle reflex will need fluids administered by your veterinarian to correct the dehydration and other abnormalities. Antibiotics may be indicated in some situations, but not all.

If the diarrhea is due to a virus or parasites then antibiotics may not be indicated. You should consult with your veterinarian to help decide whether antibiotics are needed and which one to use. A diagnosis can be difficult to achieve on clinical signs alone; therefore, a stool sample may be required so that your veterinarian can test for these different causes.

The incidence of scours can be reduced by following some simple guidelines. These include: 1. making sure that calves ingest an adequate amount (10 percent of body weight, 10 pounds or 10 pints for a 100 pound calf) of the mother's milk within the first 18-24 hours of life; 2. vaccinating cows and heifers before calving to stimulate antibody production *against harmful bacteria*; 3. isolate diseased animals; 4. practice good general hygiene; and 5. when managing sick calves, always treat them last to avoid spreading the disease to the healthy animals.

It should also be understood that there are many causes of calf scours (i.e. *Salmonella*, *Cryptosporidium*

,  
*Campylobacter*

, and  
*E. coli*

, etc.) which can also affect humans. Therefore, when handling calves with diarrhea, people should wear gloves or wash their hands immediately after touching the animals. Young children and people with compromised immune systems should not be involved in the treatment of calves with diarrhea.

This column is provided by the faculty of the OSU Boren Veterinary Medical Teaching Hospital.

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