**CAUSES**
Scours can be caused by bacteria (e.g. *E. coli*, *Salmonella*, *Clostridium*), viruses (e.g. rotavirus, coronavirus), OR parasites (e.g. cryptosporidium, coccidia).

Often, more than one pathogen might be affecting a single calf or calves within a single herd.

Many of these pathogens can cause disease in humans, particularly cryptosporidium and salmonella. Good personal hygiene is essential when handling scouring calves.

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**CLINICAL SIGNS**
Calves can exhibit a wide range of symptoms, such as:

- Loose or watery feces for >2 days
- Reduced or lack of appetite
- Dehydration (i.e. sunken eyes, tacky gums, reduced skin elasticity)
- Dullness or lethargy (i.e. droopy ears, lower levels of activity)
- Weakness (i.e. reluctance or inability to stand)

Dehydration and sepsis are the predominant reasons calves die from scours, more so than the scours itself.

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**VACCINATION**
Pre-calving vaccination of cows and heifers can be used to help protect calves against scours caused by *E. coli*, rotavirus, coronavirus, and/or clostridium, when used according to label directions. (*See Calf Diarrhea Vaccination Guidelines*)

Scours vaccines are given to the cows but immunity only gets passed to the calves when they drink enough good quality colostrum shortly after birth, so...

**Scours vaccines are only as good as your colostrum management!**

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**PREVENTATIVE MANAGEMENT**
The pathogens that cause scours are spread in the environment when young, vulnerable calves come in contact with contaminated materials.

Bedding, pasture, and even cows' udders get contaminated when exposed to infected manure of older calves or cows that may not show any symptoms of scours.

Pasture management strategies that minimize the contact of young calves with manure are key to reducing calf scours.

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**TREATMENT**
Most causes of scours cannot be treated with antibiotics. Treatment with antibiotics only helps prevent calves from becoming septic. (*See CVMA Beef Calf Diarrhea Decision Tree*)

Therefore, the ONLY scouring calves who need antibiotics:

- Are severely dull or lethargic,
- Have blood or mucus in the feces,
- Have signs of sepsis (e.g. reddened gums, bloodshot eyes)

Fluid therapy, either oral or IV, are essential to keeping scouring calves alive. Discuss this with your veterinarian.