

MALIGNANT EDEMA/ GAS GANGRENE



CAUSES

Malignant edema can affect all ages of cattle and is usually caused by *Clostridium septicum*, as well as *C. chauvoei*, *C. perfringens* Type A, *C. novyi* Type A, and *C. sordellii*.

The source of infection in the wound is usually soil, where clostridial spores can persist and accumulate over time.

Risk factors include traumatic calving with tearing of the uterus or vagina in cows and castration of bull calves.

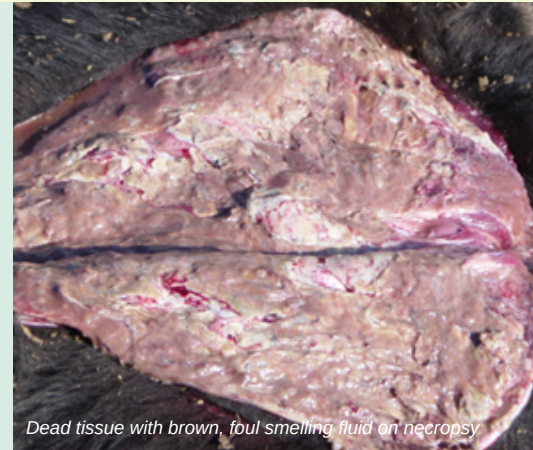
MALIGNANT EDEMA IS AN ACUTE, USUALLY FATAL, WOUND INFECTION THAT OCCURS WORLDWIDE.

CLINICAL SIGNS

Clinical signs develop within 6 to 48 hours of the predisposing injury and include: being off feed, high fever, or soft swelling of the injured area.

Affected tissue may contain gas and feel crackly to the touch. If there are large swellings, when aspirated, the fluid is a dark brownish color with a very foul odor. **Unless treatment is started very early, death rate is very high.**

At necropsy, there is a lot of smelly brownish fluid and dead tissue.



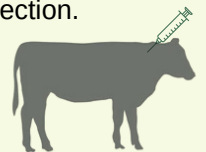
Dead tissue with brown, foul smelling fluid on necropsy

TREATMENT

Treatment is with antimicrobials and supportive treatment (e.g. NSAIDs) as per your veterinarian's treatment protocol. Surgical intervention may also be performed by a veterinarian to allow drainage of the affected area.

PREVENTATIVE MANAGEMENT

Low stress cattle handling and using clean needles and syringes to administer injectable animal health products will help reduce the risk of wounds and infection.



CLOSTRIDIAL BACTERIA ARE CONSIDERED CORE VACCINES AND SHOULD BE INCLUDED IN YOUR HERD'S VACCINATION PROGRAM.

VACCINATION

Clostridial bacteria are considered **core vaccines**, so they should be included in every herd's vaccination program ([See Core Vaccine Guidelines - Clostridial Vaccines](#)).

- Cattle that have not been previously vaccinated or have unknown vaccine history should be given a booster series (i.e., 2 vaccines, 3-6 weeks apart), as per label directions.
- Cattle that have been previously vaccinated should be vaccinated annually.
- Calves should be vaccinated at 2 or more of the following times: spring processing (or branding), 3-6 weeks before weaning, and/or weaning, as per label directions. Two vaccines should be given 3-6 weeks apart.