



Clostridium Type A

What is it?

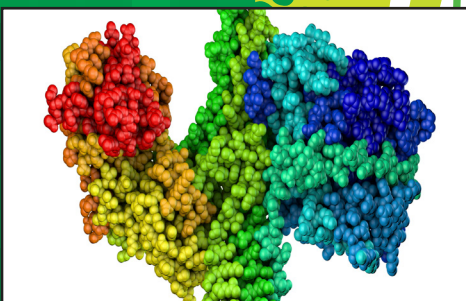
Clostridium is a type of disease causing bacteria that has many different species. Clostridium is a pathogenic, anaerobic bacterium commonly located in soil, water, feces, domestic animal feeds and animal gastrointestinal tracts. There are 5 bacterial types, A, B, C, D and E. Type A is the most widespread in the intestines of warm blooded animals and in soils. Each type produces potent exotoxins, responsible for specific enterotoxemias.

What symptoms are typically seen in Cervid?

- Diarrhea/death
- Enterotoxemia-blood poisoning caused by an enterotoxin, a protein exotoxin released by a microorganism that targets the intestines
- There is not a lot of research on *C. perfringens* type A. in cervid, more research is on cattle and the following are some diseases from *C. Perfringens* type A
 - Adult cows: causes Jejunal Hemorrhagic Syndrome (jejunum is a section of the intestine)
 - Calves: sudden onset of abdominal distension with pain, depression, feed refusal and sudden death
 - In Sheep Clostridium type A causes Yellow lamb disease, a rare form of acute enterotexmia

How is it spread?

- Clostridial diseases are not spread from animal to animal.
- Susceptible animals are those that have the organism and have one or more risk factors for disease.
- Young animals are susceptible of ingesting *c. perfringens* in the first few days of colostrum feeding. Other factors below also set animals at risk.
- In many cases with whitetail fawns the fastest growing animals will succumb to the disease
- Inconsistent feeding practices-feed changes, temperature, mixing, frequency, volume
- Limited access to water after feed consumption
- Abnormal intestinal flora from abundant medications, specifically oral
- Stressful interventions that result in erratic intakes



Signs and Symptoms

- Depressed physical activity
- Anorexia
- Diarrhea and pyrexia (normal temperature ranges from 99.5F to 101.3F/37.5-38.5C depending on species, health, season and breeding).

Disease Management

- Clostridial organisms are, for the most part, normal flora of most animals and only become problematic with dietary stress, injury, changes in management, parasitism or other unusual circumstances that set up a favorable growth environment and result in production of potent toxins.
- Proper management is important to minimize disease and reduce the contagiousness of the bacteria. Keeping deer in a clean, minimal stress environment and not overcrowding them will decrease the incidence of the disease. Stress such as heat, cold, overcrowding or poor nutrition predispose to infection.
- Clostridial diseases are usually too rapid to allow adequate treatment of affected animals
- Preventative maintenance such as maintaining an active vaccination protocol is the best means of protection

Points to Remember

- Clostridial diseases are not spread from animal to animal
- Diarrhea is the primary symptom seen with Clostridium
- Clostridial diseases are very rapid in progression and therefore difficult to treat
- Preventative measures such as a vaccination protocol should be introduced, EV1 covers Clostridium Type A

