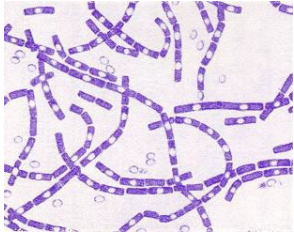


# ANTHRAX

Highly infectious, Zoonotic, Spore-forming Bacteria



## Causative Agent: *Bacillus anthracis*



Characteristic gram (+) staining bacteria with squared ends in long chains. Note the centrally located spores in the left image

## Signs of an outbreak:

- Acute death of ruminants
- Bloody discharge from
- deceased animals
- Rapid bloating
- Lack of rigor mortis
- **DO NOT MOVE ANIMAL, DO NOT NECROPSY**
- **Call your veterinarian or SD AIB immediately for sample collection and handling directions**



## Prevention

- Annual vaccination in late spring/early summer
  - (2-4 weeks prior to pasture turnout)
- Avoid contact with infected carcasses and do not share water sources with other herds

## Treatment – contact your veterinarian

- If caught early, animals can be treated with antibiotics such as oxytetracycline or penicillin
- Most animals only show clinical signs for a few hours and treatment is not effective

## Fast Facts

- Large areas of South Dakota are endemic for the presence of spores in the soil. These spores can persist in their dormant state for decades and are resistant to many conventional decontamination methods.
- Grazing ruminants (cattle, sheep, etc) are most likely to consume the spores from the soil during times of drought.
- Anthrax is not contagious. Direct contact with infected animals is not a common route of infection. However, infected carcasses can be a source of large numbers of bacteria and lead to contamination of the soil, plants, and nearby water sources.

## Human Safety

- The most common form of anthrax in humans is cutaneous (skin). This form is rarely fatal and easily treated with antibiotics.
- The gastrointestinal form is less common but more severe. It is caused by undercooked contaminated meat.
- The inhaled form (lung) is the rarest and most severe.
- Contact your physician if you are concerned about exposure.

## Outbreak Response

- WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE)
  - Gloves, boot covers, etc
- Do not move animals or carcasses from or within the premises
- Clean and disinfect all machinery, equipment, clothing, and other materials that could be contaminated
- Under SD AIB direction, bury +/- burn all infected carcasses, bedding, that could be contaminated
- Quarantines will be lifted 30 days after the last carcasses is disposed of

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