

Anthrax

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Bacillus anthracis has been responsible for pandemics in humans and animals for centuries in Europe, the Middle-East and Africa. This spore-forming bacterium was most likely transported to the Mississippi River Delta during the French settlement by cargo ships from the Nile valley. The spores can survive in the environment for years. Outbreaks are most commonly recognized in livestock although other domestic animals and wildlife, especially deer, may be involved. Farmers, butchers, veterinarians and persons working with wool, mohair, hides or bones have the greatest potential for becoming infected. The three manifestations of anthrax are cutaneous, respiratory, and intestinal.

Transmission

- Direct contact with infected materials
- Inhalation of spores
- Eating infected meat

Symptoms

- Cutaneous: small sore that develops into a blister. The blister then develops into a skin ulcer with a black area in the center. The sore, blister and ulcer do not hurt
- Gastrointestinal: nausea, loss of appetite, bloody diarrhea, and fever, stomach pain
- Inhalation: cold or flu symptoms and can include a sore throat, mild fever and muscle aches. Later symptoms include cough, chest discomfort, shortness of breath, tiredness and muscle aches.

Treatment/Care

- In most cases, early treatment with antibiotics can cure cutaneous anthrax.
- Antibiotics are used to treat all three types of anthrax

Prevention

- Control measures in livestock in endemic areas, such as the safe disposal of anthrax carcasses and vaccination of at-risk herds
- Antibiotics (such as ciprofloxacin, levofloxacin, doxycycline, or penicillin) combined with anthrax vaccine to prevent anthrax infection in those with known or suspected exposure.

The first recorded outbreak of anthrax in Florida occurred in a dairy herd near Miami in 1927 and 1928. In January of 1974, the Naval Air Station in Jacksonville documented an eye infection of anthrax in a young female recruit that had recently visited Haiti. Investigation revealed the source of infection to be a goatskin covered drum which carried *B. anthracis* spores. The most recent cases of anthrax reported in Florida were in 2001. A 63-year-old white male in Palm Beach County died of respiratory anthrax after inhaling the spores in contaminated mailings. The second case involved an individual who worked in the same building and tested positive for the bacterium in a nasal sample. Any suspected cases of anthrax should be reported to local and state health departments and the CDC immediately as the CDC has classified *Bacillus anthracis* spores as a potential bioterrorist agent.

More information

<http://www.bt.cdc.gov/agent/anthrax/index.asp>

http://www.doh.state.fl.us/Disease_ctrl/epi/anthrax/index.html

<http://www.niaid.nih.gov/factsheets/anthrax.htm>

<http://www.who.int/mediacentre/factsheets/fs264/en/index.html>