



THE FACTS: ***Anthrax***

What is Anthrax?

Anthrax is an infectious disease caused by a very hardy germ, *Bacillus anthracis*. It is primarily a disease of sheep, goats and swine. This germ can survive for centuries in its spore form -inside a coating of armor that allows it to exist in the soil or floats about in the air until it finds a host to infect. Fortunately it is very rare in most parts of the world, including Canada and the United States.

How is it Spread?

Animals contract anthrax from contaminated soil. The germ will enter a tiny scratch or cut on the animal's hide, causing a localized sore. Sometimes there is no cut for the spores to enter, but the spores may then reside on the animal's hide. Some species of animals are believed to become infected by ingesting contaminated food or water or by inhaling anthrax spores kicked up the dust, in which case they may or may not become ill.

Humans typically contract anthrax from handling contaminated animal hides - the germ may enter a cut or abrasion on a person's skin and cause a localized infection, accounting for approximately 95 percent of cases worldwide. Anthrax is ***not spread from person to person.***

Signs and Symptoms

Symptoms of disease vary depending on how the disease was contracted, but symptoms usually occur within 7 days. Persons should watch for the following symptoms:

- fever (greater than 100 degrees F)
- flu-like symptoms (cough, fatigue, muscle aches), nausea, vomiting or diarrhea
- a sore, especially on your face, arms or hands

There is no screening test for anthrax; there is no test that a doctor can do for you that says you've been exposed to or carry it. The only way exposure can be determined is through a public health investigation.

Cutaneous:

Most (about 95%) anthrax infections occur when the germ enters a cut or abrasion on the skin. Skin infection begins as a raised itchy bump resembling an insect bite. But within a day or two, this bump turns into an open, but painless sore (about 1-3 centimeters in diameter) with a black circle in its center. This black area is actually dead tissue. There may be swelling in nearby lymph nodes. Cutaneous anthrax can be successfully treated with antibiotics; the sore(s) typically heal with little scarring, especially if treated early. It is reported that about 20 percent of cases of cutaneous anthrax result in death.

Inhalation:

Initial symptoms may resemble a common cold. After several days, the symptoms may progress to severe breathing problems and shock. After exposure to anthrax appropriate antibiotics should be started as soon as possible. Mortality rates from inhalation of anthrax are high particularly if antibiotics are not started soon enough.

Intestinal:

Humans also can contract anthrax by eating meat from infected animals. Initial symptoms may include nausea, loss of appetite, vomiting and fever. As the infection progresses, there may be severe abdominal pain, vomiting of blood and severe diarrhea. Given the difficulty of early diagnosis, this form of anthrax can also lead to death in a number of cases.

Can Anthrax be Prevented?

- Confirmed exposure to anthrax is treated with antibiotics and should be started within 24 hours. Unless anthrax has been confirmed in the area, it is recommended that persons thought to have been exposed await laboratory confirmation before starting preventive medication.
- Anthrax immunization is not licensed in Canada and would have to be accessed through the Special Access Program at Health Canada. If anthrax is being considered, the responsible physician should immediately consult with the local MOH who in turn will contact the Chief Medical Officer of Health of Ontario or his designate. Anthrax vaccination has been recommended for the following groups:
 - Persons who work directly with the germ in the laboratory.
 - Persons who work with imported animal hides or furs in areas where standards are insufficient to prevent exposure to anthrax spores.
 - Persons who handle potentially infected animal products in high-incidence areas.
 - Military personnel deployed to areas with high risk for exposure to the germ (biological warfare weapon).

**For Further Information Contact the Infectious Disease Program at 625-8318
or toll free 1-888-294-6630, ext. 8318.**

