



What is anthrax?

Anthrax is a disease caused by the bacteria *Bacillus anthracis* that can infect all warm-blooded animals, including humans.

Who is at risk for anthrax?

Anthrax is primarily a disease that affects people who work in certain jobs including people who are exposed to dead animals and animal products such as wool and hair. However, precautions may be used and these infections are rare.

What are the symptoms of anthrax?

The symptoms will vary depending on how a person was exposed to the bacteria. With skin exposure, a boil-like sore appears that eventually forms a black center. Swelling of the lymph glands under the arm also may occur. With respiratory exposure, symptoms may resemble the common cold and may progress to severe breathing problems and even death. Intestinal exposure may include abdominal cramps, nausea and vomiting and can be followed by fever, bloody diarrhea, sepsis and even death.

How soon do symptoms appear?

Symptoms usually appear seven days after exposure.

How is anthrax spread?

The anthrax bacteria can live in the soil for many years in the form of a spore. (A spore is a bacteria that has gone dormant because its environment wasn't good for growth and/or reproduction.) People may become infected with anthrax by inhaling contaminated soil particles or by handling wool or hair from diseased animals. Infection of the intestinal tract can occur by eating undercooked meat from diseased animals.

When and for how long is a person able to spread the disease?

There are no reports of the disease spreading from person to person.

How is a person diagnosed?

Diagnosis will depend on the type of anthrax infection a person has. Laboratory tests - which can be done on blood, spinal fluid, skin biopsies, etc. - are available to help aid a health-care professional with the diagnosis.

What is the treatment?

Anthrax can be treated and cured with antibiotics. Penicillin is the drug of choice, but tetracycline may also be prescribed. Make sure to follow all directions when taking antibiotics to reduce the chance of relapse and developing antibiotic resistant strains.

Does past infection make a person immune?

How immune a person may be is unknown; however, second attacks of this disease are rare.

Should children or others be excluded from day care, school, work or other activities if they have anthrax?

No. Infants, toddlers and school-age children should not be excluded unless the staff determines the child is unwilling or unable to participate in activities. They also should be excluded if the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

All others can attend work and other functions as long as they are well enough to do so. As always, good hand washing and respiratory etiquette is recommended.

What can be done to prevent the spread of anthrax?

Anthrax vaccine is no longer available to the public. However, it is available to people in high-risk occupations, such as:

- People who work directly with the anthrax bacteria in the laboratory.
- People who work with imported animal hides or furs in areas where work standards are insufficient to prevent exposure to anthrax spores.
- People who handle potentially infected animal products in high-incidence areas; while incidence is low in the United States, veterinarians who travel to work in other countries where incidence is higher should consider being vaccinated.
- Military personnel deployed to areas with high risk for exposure to the anthrax bacteria.

For everyone else, the best way to reduce his or her risk of getting anthrax is to carefully handle dead animals suspected of having anthrax. When processing or working with animal hides, always work in an area that has good ventilation. Vaccinating livestock will further reduce the risk of exposure to infected animals and animal hides; check with a licensed veterinarian regarding animal vaccinations.

Additional Information:

Additional information is available by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resource: American Academy of Pediatrics. Pickering LK, ed. *Red Book: 2003 Report of the Committee on Infectious Diseases*. 26th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003:[196-199; 123-129]

