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What is anthrax?

Anthrax is a serious disease caused by *Bacillus anthracis*, a bacterium that forms spores. There are four types of anthrax: cutaneous (affecting the skin), inhalation (affecting the lungs), gastrointestinal (affecting the digestive system), and injection anthrax (affecting the skin or other body parts).

Who gets anthrax?

Anyone can get anthrax, but it is a rare disease in the United States. Anthrax occurs naturally in certain wild and domestic animals (e.g., cattle, sheep, goats, camels, etc.), most commonly in South and Central America, sub-Saharan Africa, central and southwestern Asia, southern and eastern Europe, and the Caribbean. People who get anthrax usually become infected from contact with infected animals or with meat or products (such as hides or wool) from infected animals while traveling in the countries where the disease is more common or from products imported from those countries.

How is anthrax spread?

Anthrax is not known to spread from one person to another. *Bacillus anthracis* spores can enter the body in four ways: (1) through skin contact with anthrax spores, such as by touching or handling hides or wool from infected animals, that get into a cut or scrape on the skin; (2) from inhaling anthrax spores from infected animals; (3) from eating contaminated, undercooked meat from infected animals; or (4) from injecting contaminated heroin.

What are the symptoms of anthrax?

The symptoms of anthrax are different, depending on the type of exposure:

- **Cutaneous:** The first symptom is a small sore that develops into a blister. The blister then develops into a skin ulcer with a black area in the center. The affected area does not usually hurt.
- **Gastrointestinal:** The first symptoms are usually nausea, loss of appetite, bloody diarrhea, and fever, followed by severe stomach pain.
- **Inhalation:** The first symptoms can feel like a cold or the flu and can include a sore throat, mild fever, cough, and muscle aches. Within a few days, however, the breathing problems get much worse and become quite severe. A person with inhalation anthrax will be sick enough to need to be in a hospital. In 2001 in the United States, several of the cases of inhalation anthrax that resulted from bioterrorism ended in death.
- **Injection:** The first symptoms are usually redness, swelling and a group of small blisters or bumps at the injection site. Deeper wounds develop within the skin or muscle where the injection occurred and fever might be present. As the disease worsens, other body parts, including the brain, can be affected.

How soon after exposure do symptoms appear?

The time for symptoms to appear depends on the type of exposure. In general, symptoms can appear anywhere from one day to two months after exposure.

How is anthrax diagnosed?

Special laboratory tests of the blood, skin lesion, spinal fluid or respiratory secretions are needed to confirm the diagnosis. The diagnosis can be suspected when x-rays show specific changes in the lungs that inhalation anthrax causes.

What is the treatment for anthrax?

People with anthrax need to take antibiotics, usually for 60 days. Treatment is usually more successful if it is started early.

How can anthrax be prevented?

If a person has been exposed to anthrax but is not yet sick, healthcare providers will prescribe antibiotics to prevent infection. A vaccine to prevent anthrax is available to those at higher risk of routine exposure to anthrax, including certain members of the U.S. armed forces, lab workers, and workers who may enter or re-enter contaminated areas. In the event of an attack using anthrax as a weapon, anyone exposed to anthrax would likely get the vaccine.

Could anthrax be used for bioterrorism?

Anthrax spores can be used as a bioterrorist weapon, as was the case in 2001, when *Bacillus anthracis* spores were intentionally distributed through the U.S. Postal System, causing 22 cases of anthrax, including five deaths.

How can I learn more about anthrax?

- If you have concerns about anthrax, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at the [VDH Local Health Districts page](#).
- Visit the Centers for Disease Control and Prevention website at [the CDC's page on anthrax](#).

[Anthrax: Overview for Health Care Providers](#) (Updated March 2024)

Two page summary of: Organism, Reporting, Infectious Dose, Occurrence, Natural Reservoir, Route of Infection, Communicability, Case-fatality Rate, Risk Factors, Incubation Period, Clinical Manifestations, Differential Diagnosis, Laboratory Tests/Sample Collection, Treatment, Vaccine

[Anthrax: Guidance for Health Care Providers](#) (Updated March 2024)

Key Medical and Public Health Interventions After Identification of a Suspected Case

March 2024

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