

Anthrax is a serious disease caused by *Bacillus anthracis*, a bacterium that forms spores. A bacterium is a very small organism made up of one cell. Many bacteria can cause disease. A spore is a cell that is dormant (asleep) but may come to life with the right conditions.

There are three types of anthrax:

- **skin (cutaneous)**
- **lungs (inhalation)**
- **digestive (intestinal)**

## Symptoms

- **Inhalational anthrax** is the most serious form of anthrax and is caused by inhaling Anthrax bacteria into the lungs. Initial symptoms usually begin 1-6 days after exposure, but can occur as late as 42 days after exposure. Symptoms include fever, headache, cough, difficulty breathing, chills, weakness, and chest discomfort. Without treatment, severe breathing problems and death usually result. Inhalation anthrax is NOT contagious (spread person-to-person).
- **Cutaneous anthrax** is caused when the anthrax bacteria come into direct contact with skin that has a cut or break in it. Cutaneous anthrax begins within 1 to 7 days after exposure and first causes a raised, itchy bump that resembles an insect bite. Within 1-2 days after the appearance of the bump, a small blister develops. This blister then becomes a painless sore with a black center. Lymph glands in the area of the infection may swell.
- **Intestinal anthrax** is caused by eating meat from an animal that has died of anthrax or by drinking other foods or liquids contaminated with anthrax bacteria. It causes nausea, vomiting, fever, pain in the abdomen, and diarrhea. Intestinal anthrax symptoms appear within 1 to 7 days after exposure.
- If untreated, each of these forms of anthrax can spread to the blood, brain, or spine and cause severe illness or death.

## Transmission

- Anthrax is not known to spread from one person to another.
- **Anthrax from animals.** Humans can become infected with anthrax by handling products from infected animals or by breathing in anthrax spores from infected animal products (like wool, for example). People also can become infected with gastrointestinal anthrax by eating undercooked meat from infected animals.
- **Anthrax as a weapon.** Anthrax also can be used as a weapon. This happened in the United States in 2001. Anthrax was deliberately spread through the postal system by sending letters with powder containing anthrax. This caused 22 cases of anthrax infection.

## Treatment

- There is no laboratory test to test for anthrax before symptoms begin. Antibiotics are used to treat all three types of anthrax. Early identification and treatment are important. Treatment is usually a 60-day course of antibiotics. Success depends on the type of anthrax and how soon treatment begins.

## Prevention

- Treatment is different for a person who is exposed to anthrax, but is not yet sick. Health-care providers will use antibiotics (such as ciprofloxacin, levofloxacin, doxycycline, or penicillin) combined with the anthrax vaccine to prevent anthrax infection.

**All information is general in nature and is not intended to be used as a substitute for appropriate professional advice.**

