

# Anthrax

## What is anthrax?

**Anthrax** is an acute infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. It most commonly occurs in mammals such as cattle, sheep, goats, camels and antelopes, but can also occur in humans when they are exposed to infected animals or tissue from infected animals. Anthrax organisms can cause infection in the skin, gastrointestinal system, or the lungs.

## How can people be infected with anthrax?

There are three ways the bacterium *Bacillus anthracis* can get into the body: through the skin, through inhalation, or through the gastrointestinal system. **Cutaneous** or skin anthrax occurs when the bacterium enters through a cut or scrape. To be infected with **Inhalation** anthrax, a person has to breathe in the spores, which must be sprayed in a very fine mist. Eating contaminated food causes **gastrointestinal** anthrax and it is rare to find infected animals in the United States.

## What are the symptoms of anthrax?

They vary depending on how the disease was contracted, but symptoms usually occur within seven days.

**Cutaneous:** About 95% of anthrax infections occur when the bacterium enters a cut or abrasion on the skin. It begins as a raised itchy bump that resembles an insect bite, but soon turns into a painless ulcer, usually one to three centimeters in diameter, usually with a black center in the middle. Lymph glands in the adjacent area may swell along with fever or achiness.

**Inhalation:** If the particles are the right size to be inhaled deeply into the lungs, they can grow and infect the blood and lymph system. Illness begins with flu-like symptoms that progress in a matter of days to severe breathing problems and shock. Possible flu-like symptoms are just an additional reason that individuals should get their flu shots.

**Intestinal:** This form of anthrax may follow the consumption of contaminated meat and is characterized by an acute inflammation of the intestinal tract. Initial signs include nausea, vomiting and fever, followed by abdominal pain, vomiting blood and severe diarrhea. Remember that it is rare to find infected animals in the United States.

## Is it contagious?

Anthrax cannot be passed through the air from person to person, even after a victim has developed symptoms. Relatives and contacts of people who may be infected do not need to take antibiotics. The exception is that with cutaneous (skin) anthrax, direct contact with the drainage from an open sore can spread the bacteria.

## Is there a treatment for anthrax?

Doctors can prescribe effective antibiotics. To be effective, treatment should be initiated early. If left untreated, the disease can be fatal. **Cipro** is approved for use against inhalation anthrax, mainly because there has been concern about the potential use of strains of anthrax that have been genetically modified to resist other antibiotics. Non-genetically engineered, naturally occurring anthrax can be treated with several different antibiotics, including penicillin and doxycycline. The above information was gathered from the **Centers for Disease Control and Prevention**.

### **What kind of mail should be considered suspicious?**

**According to the United States Postal Service, you should be wary of the following:**

1. Mail that has any powdery substance on the outside, strange odors, or stains.
2. Mail that is from someone unfamiliar, has excess postage, has no return address, or one that does not appear legitimate.
3. Mail that is addressed to someone no longer with your company.
4. Mail that is of unusual weight, lopsided or oddly shaped, has an unusual amount of tape on it.
5. Mail that is marked with restrictive endorsements, such as "Personal" or "Confidential."
6. Mail that show a city or state in the postmark that does not match the return address.

### **Tips for handling mail packages suspected of anthrax contamination provided by the U.S. Postal Service:**

1. Do not handle, smell, or taste the contents of the suspicious envelope or package.
2. Make sure that damaged or suspicious packages are isolated perhaps placed in a plastic bag or some other type of container and the immediate areas are cordoned off. Keep others away.
3. Ensure that all persons who have touched the mail piece wash their hands with soap and water.
4. If at work: Notify your supervisor, who will immediately contact the Inspection service, local police, safety office, or designated person. If at home, report the incident to local police.
5. Call a postal inspector to report that you have received a parcel in the mail that may contain biological or chemical substances. An inspector will collect the mail, assess the threat situation, and coordinate with the FBI.
6. List all persons who have touched the letter and/or envelope. Include contact information. Provide the list to the postal inspector.
7. Place all items worn when in contact with the suspected mail piece in plastic bags and have them available for law enforcement agents.
8. As soon as practical, shower with soap and water. Do not use bleach or disinfectant on your skin.
9. If prescribed medication by medical personnel, take it until otherwise instructed or prescription is finished.

**ATTENTION:** This web page is intended to be used for health information ONLY. If you or a family member has a medical emergency, please call your doctor or 911, or your local emergency service number.