What is Anthrax?

Anthrax is an infectious bacterial disease. Anthrax can infect wild and domestic animals, such as cattle, pigs, and sheep. Anthrax can also infect humans when they are exposed to anthrax-infected animals.

How can you get Anthrax?

You can become infected with anthrax in three ways:

- through the skin, for example, when you handle infected animals,
- through the lungs, when you breathe in anthrax spores (tiny single-cell organisms of the anthrax bacterium),
- through the mouth, when you eat infected meat.

Anthrax cannot be transmitted from one person to another.

What are the symptoms you may experience if you are infected by Anthrax?

The symptoms will be different depending on how you got the disease. The symptoms usually appear within 7 days of exposure.

- If anthrax spores enter a cut in the skin, an itchy bump (very much like an insect bite) will appear and then have a black center. A swelling of the lymph glands in the infected area may occur. Approximately 20% of untreated cases of skin anthrax lead to death.
- If anthrax spores are breathed in, the symptoms may be like a common cold at first, but later you may have chest pain, breathing problems and symptoms of shock. This form of anthrax is usually fatal if there is no quick treatment.
- Anthrax caused by eating undercooked infected meat will result in an acute inflammation of the intestines. The symptoms will be nausea, vomiting, fever, loss of appetite, abdominal pain, and severe diarrhea. Intestinal anthrax can be fatal if not treated immediately.

Why should you be concerned about Anthrax?

Anthrax is a potential agent that could be used in biological warfare. Several countries are believed to have biological weapons programs that may include anthrax. Also individuals or groups may disseminate anthrax as an act of terror. If there is a bio-terrorism incident, the most likely way we could be exposed would be by breathing bacteria, or spores, spread through the air or through ventilation systems.
What is the treatment for Anthrax?

It is important that you are familiar with the symptoms of exposure, so that you see a doctor right away. Early medical treatment with more than one antibiotic is necessary for survival.

Is there a way to prevent Anthrax infection?

An anthrax vaccine is available for those who are at risk (for example, persons who work with anthrax in the laboratory, or military personnel in high-risk exposure areas). The vaccine is not recommended for use by the general public, unless people are in a risk situation. The vaccine is given six times over 18 months and is followed by a yearly booster dose.

Anthrax and the Workplace

In the fall of 2001, anthrax-contaminated mail was sent through the US Postal Service. After anthrax spores were found in a U.S. Senate office, a mailroom and a postal facility, staff who had been in contact with infected envelopes were given antibiotics. Currently, many government agencies have changed the way they process their mail. For example, mail sent to elected and other government officials in Washington, D.C. is irradiated before delivery. So far, the only method used to spread anthrax has been through the mail. The Centers for Disease Control (CDC) has issued guidelines for how to recognize and handle suspicious mail, including packages.

Some characteristics of suspicious envelopes and packages include the following:

- Inappropriate or unusual labeling;
- Excessive postage;
- Handwritten or poorly typed addresses;
- Misspellings of common words;
- Strange return address or no return address;
- Incorrect titles or title without a name;
- Not addressed to a specific person;
- Marked with restrictions, such as “Personal,” “Confidential,” or “Do not x-ray”;
- Marked with any threatening language;
- Postmarked from a city or state that does not match the return address.

Appearance:

- Powdery substance felt through, or appearing on, the package or envelope;
- Oily stains, discolorations, or odor;
- Lopsided or uneven envelope;
- Excessive packaging material such as masking tape, string, etc.;
- Excessive weight;
- Ticking sound;
- Protruding wires or aluminum foil.
How to handle suspicious packages or envelopes

- If a package or envelope appears suspicious, DO NOT OPEN IT.
- Do not shake or empty the contents of any suspicious package or envelope.
- Do not carry the package or envelope, show it to others, or allow others to examine it.
- Put the package or envelope down on a stable surface; do not sniff, touch, taste, or look closely at it or at any contents which may have spilled.
- Alert others in the area about the suspicious package or envelope. Leave the area, close any doors, and take actions to prevent others from entering the area. If possible, shut off the ventilation system.
- WASH hands with soap and water to prevent spreading potentially infectious material to face or skin.
- Seek additional instructions for exposed or potentially exposed persons.
- Notify a supervisor, a security officer, or law enforcement official.
- If possible, create a list of persons who were in the room or area when this suspicious letter or package was recognized and a list of persons who also may have handled this package or letter. Give this list to both the local public health authorities and law enforcement officials.

Investigation and Cleanup of Contaminated Sites

Investigation and cleanup is specialized work that must be performed only by trained personnel. Special protective clothing and equipment are needed to perform this task, such as OSHA-regulated respirators and equipment to decontaminate personnel as they leave the anthrax-contaminated area.

The Occupational Safety and Health Administration (OSHA’s) Hazardous Waste Operations and Emergency Response Standard, also known as HAZWOPER (29 CFR 1910.120), covers workers who do this kind of work. The HAZWOPER standard specifies the requirements for emergency planning, training, equipment, protective clothing, work practices and other measures to prevent worker exposure.

Useful websites to find out more about Anthrax:

- The Centers for Disease Control (CDC’s) recommendations for protecting workers who are taking samples that may contain anthrax: http://www.bt.cdc.gov/DocumentsApp/Anthrax/Protective/Protective.asp
- OSHA’s requirements and guidance for workers regarding responding to possible anthrax incidents: http://www.osha.gov/bioterrorism/anthrax/matrix/index.html