What is anthrax?
Anthrax is an infection caused by a bacterial organism called *Bacillus anthracis*. The disease can be spread between animals and humans, but most people and animals become ill from exposure to soil containing spores where animals with anthrax have died. The recent use of anthrax by terrorists and the possibility of spreading anthrax for the purpose of warfare have increased the public’s awareness of this disease.

Although anthrax can be found anywhere in the world, it is most common in the developing countries of South and Central America, Eastern Europe, Asia, Africa, the Caribbean, and the Middle East. Anthrax is also present in the Western United States which is where human cases of anthrax typically occur. Ohio is not endemic for anthrax.

Who can get anthrax?
Anthrax is typically a disease of sheep, cattle, horses, goats, and swine; but humans and other mammals can also become infected.

How is anthrax transmitted?
The bacterium exists in the soil in the form of spores. Spores are inactive forms of the bacteria that can survive for decades. Humans and other animals can become infected through contact with infectious spores from animals, animal hide, or contaminated environments. It cannot spread from person-to-person.

There are four types of anthrax in humans caused by different routes of infection:
- Cutaneous anthrax is caused by touching the spores (soil, animal fur, etc.).
- Inhalation anthrax is caused by breathing in airborne spores.
- Ingestion anthrax is caused by eating undercooked animal meat or other animal byproducts containing anthrax spores.
- Injection anthrax has been seen in northern Europe in people injecting heroin.

How long after exposure before symptoms appear?
The first symptoms usually occur within seven days, but typically within 48 hours.

What are the symptoms of anthrax?
Symptoms of disease vary depending on how the disease was contracted.

Cutaneous: Most anthrax infections occur when the bacterium enters a cut or abrasion. Skin infection begins as a raised itchy bump that resembles an insect bite, but within 1-2 days develops into a small blister and then a painless ulcer, usually 1-3 cm in diameter, with a characteristic black area in the center. Lymph glands in the adjacent area may swell. Five to 20% of untreated cases of cutaneous anthrax will result in death. Deaths are rare with appropriate antimicrobial therapy. Cutaneous anthrax symptoms can include:
- A group of small blisters or bumps that may itch.
- Swelling can occur around the sore.
- A painless skin sore (ulcer) with a black center that appears after the small blisters or bumps.
- Most often, the sore will be on the face, neck, arms, or hands.

Inhalation: Initial symptoms may resemble a common cold. After several days, the symptoms may progress to severe breathing problems and shock. Inhalation anthrax is usually fatal. Inhalation anthrax symptoms can include:
- Fever and chills.
• Chest discomfort.
• Shortness of breath.
• Confusion or dizziness.
• Cough.
• Nausea, vomiting, or stomach pains.
• Headache.
• Sweats (often drenching).
• Extreme tiredness.
• Body aches.

Ingestion: The intestinal disease form of anthrax may follow the consumption of contaminated meat and is characterized by inflammation of the intestinal tract. Initial signs of nausea, loss of appetite, vomiting, and fever are followed by abdominal pain, vomiting of blood, and severe diarrhea. Intestinal anthrax results in death in 25% to 60% of cases. Gastrointestinal anthrax symptoms can include:
• Fever and chills.
• Swelling of neck or neck glands.
• Sore throat.
• Painful swallowing.
• Hoarseness.
• Nausea and vomiting, especially bloody vomiting.
• Diarrhea or bloody diarrhea.
• Headache.
• Flushing (red face) and red eyes.
• Stomach pain.
• Fainting.
• Swelling of abdomen (stomach).

Injection: Symptoms may be similar to cutaneous anthrax; however, there may be infection deep under the skin or in the muscle where the drug was injected. Injection anthrax results in death in 21% of cases. Injection anthrax symptoms can include:
• Fever and chills.
• A group of small blisters or bumps that may itch, appearing where the drug was injected.
• A painless skin sore with a black center that appears after the blisters or bumps.
• Swelling around the sore.
• Abscesses deep under the skin or in the muscle where the drug was injected.

How is anthrax diagnosed?
Anthrax is diagnosed by isolating \textit{B. anthracis} from the blood, skin lesions, or respiratory secretions or by measuring specific antibodies in the blood of persons with suspected cases.

How is anthrax treated?
Anthrax can be treated with antibiotics. The earlier anthrax is treated, the higher the chances of recovery. If left untreated, anthrax can be fatal.

Is there a vaccine for anthrax?
There are effective vaccines for both animals and humans. The anthrax vaccine is currently provided only to people who are at increased risk of coming in contact with anthrax spores, such as members of the U.S. military, certain laboratory workers, and some people who handle animals or animal products (farmers, veterinarians and livestock handlers). The vaccine is not licensed for use in children under age 18, adults over 65 or pregnant or nursing women.
How can I prevent anthrax?
   • When visiting countries where anthrax is common, humans should avoid contact with livestock and animal products.
   • Avoid eating meat that has not been properly slaughtered and cooked.
   • Do not open suspicious-looking mail or packages.

For more information, please visit these websites:
   • CDC's Anthrax: www.cdc.gov/anthrax