



## **ANTHRAX (Veterinary) FACT SHEET**

### **What is Anthrax?**

Anthrax is primarily a disease of hoofed herbivores (plant eaters) caused by the bacterium *Bacillus anthracis*. These bacteria can form spores which are often found in the dirt where hoofed animals graze. The anthrax spores can remain dormant in the soil for many years because they are resistant to environmental conditions. This makes anthrax difficult to eliminate from certain areas. Outbreaks tend to occur after periods of wet, cool weather, followed by several weeks of hot, dry conditions. Outbreaks usually end with the return of cool weather. Anthrax is classified as a reportable disease and is a threat as a biological weapon.

### **How does infection occur?**

Many wild and domestic herbivores (cattle, sheep, goats, deer, antelopes, camels, horses and other herbivores) can develop anthrax. Most are infected while grazing in areas contaminated with the anthrax organism. Other animals, including pigs, dogs, cats, and some wildlife, can be infected with anthrax by eating infected animal carcasses.

People are usually exposed to anthrax during contact with infected animals, products made from infected animals (hides, brushes made from animal hair, bone meal, etc.) or soil contaminated with spores. In people, the exposure occurs in three ways:

- Most commonly, the bacteria enter the body through a break in the skin while handling infected animals or their products.
- Biting flies may also transmit the disease.
- Less commonly, the bacteria are ingested while eating undercooked meat from an infected animal or are inhaled in contaminated dust.

Fortunately, anthrax is not known to spread from person to person.

### **What are the signs and symptoms of anthrax?**

Signs of the disease in animals include fever, muscle tremors, staggering, difficulty breathing, convulsions, and sudden death. There may be obvious bleeding from the mouth, nose, and anus after death.

The cutaneous (skin) form of the disease is most common. Within a few days after exposure through a break in the skin, a person develops itching at the site, followed by

a bump that develops a painless sore (ulcer) with fluid, which will turn black (dying skin). Lymph glands near the sore may become infected and swollen. Infection of the blood can also occur. When infection results from ingestion of the organism, nausea, vomiting, abdominal pain and severe, bloody diarrhea may occur. People infected through inhalation may experience fever, coughing, severe chest pain and difficulty breathing. This form of the disease is the most severe and may result in death.

### **How soon after exposure will illness be seen?**

Animals will generally show signs within three to seven days, with a range of one to 14 days. When people are exposed to anthrax, they will usually get sick in 1 to 7 days. However, symptoms may take as long as 60 days to develop. This is most likely to occur when spores are inhaled.

### **What should I do if I think I have been exposed to anthrax?**

If you think you have anthrax, contact your doctor immediately. All three forms of anthrax are very serious infections. Outcomes of skin infections are good if treated with antibiotics. Outcomes of inhalation or intestinal anthrax are poor, even when treated with antibiotics.

### **How do we prevent the spread of anthrax?**

- Do not move or open infected carcasses. This will prevent mechanical spread and release of bacteria into the air.
- Texas Animal Health Commission regulations require that anthrax infected carcasses be thoroughly burned to prevent ground contamination with the anthrax organism.
- Wear long sleeves and gloves when handling animals suspected of having anthrax.
- Do not salvage hides, skulls, horns, antlers or any other tissue from the carcasses.
- Disinfect the animal's bedding, manure and the surrounding soil, as well as any contaminated equipment with an ammonia-based disinfectant labeled as effective for anthrax.
- Burn infected pastures to kill the organism. It is not possible to effectively disinfect pastures with chemicals.
- Keep dogs out of pastures and away from infected carcasses. Dogs are reportedly resistant to anthrax. However, they occasionally develop infection from the bacteria and require treatment.
- Prevent wild hogs from feeding on infected carcasses as this may also spread the disease.
- Do not swim in stock tanks or ponds in pastures where anthrax deaths have occurred.
- Vaccinate when indicated. Vaccines are available for livestock and for people in high risk occupations. In the US, the people most likely to be exposed are

laboratory and military personnel, hunters, ranchers, veterinarians or others exposed to wild livestock (i.e. deer and elk).

**Sources of Information**

The Center for Food Security and Public Health

The Texas Animal Health Commission

The Centers for Disease Control and Prevention