

Anthrax occurs among grazing animals in many parts of the world, including livestock in parts of New South Wales. Anthrax is a very rare disease in humans. In NSW, only three cases of human anthrax have been reported since 1982.

Anthrax

Last updated: 15 March 2017

What is anthrax?

Anthrax is a bacterial disease caused by infection with *Bacillus anthracis*. The same bacteria can lead to three forms of disease:

- cutaneous anthrax
- intestinal anthrax
- inhalational (or pulmonary) anthrax

Anthrax occurs among grazing animals in many parts of the world, including livestock in parts of Australia, most commonly in central New South Wales in what is known as the 'anthrax belt' which stretches from central-east Queensland into northern Victoria. Sporadic incidents in animals have also occurred in Western Australia. Anthrax is a **very rare disease** in humans.

What are the symptoms?

- People who contract **cutaneous anthrax** develop dark coloured, painless sores within three to ten days (usually between 5 and 7 days) after exposure. These sores can be associated with swelling of the surrounding tissue. Even without treatment, four out of five people with cutaneous anthrax survive. With treatment patients generally make a full recovery.
- People who contract **intestinal anthrax** develop abdominal pain and fever between 3 and 7 days after exposure, and typically death follows soon after.
- People who contract **anthrax by inhalation** may first have flu-like symptoms. Over several days the disease can progress, with severe breathing difficulties and shock. Inhalational anthrax has a 60-90% fatality rate. The **incubation period** for inhalational anthrax is most frequently between one to five days but may be as long as 60 days.

How is it spread?

- In about 95 per cent of cases, anthrax bacteria gain entrance through broken skin or wounds (and cause **cutaneous anthrax**).
- Anthrax bacteria can also be ingested in poorly prepared meat from infected animals (and cause **intestinal anthrax**) or breathed in (and cause **inhalational anthrax**). Intestinal and inhalational anthrax in humans have not been recorded in Australia.
- In late 2001, several people in the USA contracted anthrax from spores that were maliciously distributed through the mail. Both cutaneous and inhalational anthrax were reported in that outbreak.
- Anthrax bacteria may remain in the soil for many years in the form of spores. These spores are usually the cause of infections in grazing animals. However, **human infection** from the source of spores is unlikely, as a large concentration of spores is needed for infection to occur.

- Anthrax is not known to be transmitted from person to person.

Who is at risk?

- Each year several cases of anthrax in livestock are reported. The handling of infected animals and their carcasses represents a risk to people.

How is it prevented?

- Anyone who handles material potentially contaminated with anthrax should wear gloves, overalls, and rubber boots and should ensure that skin breaks are protected with sealed waterproof dressings.
- All potentially contaminated items and clothing should be stored in labelled double plastic bags until anthrax is excluded. If anthrax is confirmed, all contaminated items need to be either incinerated, or sterilized at 121°C for 30 minutes.
- Thorough hand washing and showering with soap is also a very important protection against infection.
- In some cases where a person has had significant exposure to anthrax spores, antibiotics may be needed to help prevent infection.

How is it diagnosed?

- Cutaneous anthrax may be suspected based on the appearance of the ulcer.
- Confirmation requires isolation of anthrax bacteria from the blood, skin lesions or respiratory secretions of patients.

How is it treated?

- Several antibiotics including penicillin, doxycycline, and ciprofloxacin can be used to treat anthrax infections.

What is the public health response?

- Laboratories must notify the local public health unit of any suspected or confirmed anthrax cases.
- Public health unit staff will investigate all cases to find out how the infection occurred, identify other people at risk of infection, implement control measures and provide other advice.

[Information for Contacts - Farms and Similar Settings](#)

For further information please call your local Public Health Unit on 1300 066 055 or visit the New South Wales Health website www.health.nsw.gov.au