

Anthrax

Description:

Anthrax is a disease caused by bacteria carried by wild and domestic animals that eat plants. These bacteria can form spores, which allows the bacteria to survive in the environment for a long time. Anthrax is now rare in Australia. Since 2001 there have only been two human cases of anthrax in Australia, in 2006 and 2007. Both of these cases had skin infections caused by exposure to anthrax spores.

Symptoms:

Symptoms usually occur within seven days of exposure, but can occasionally be delayed for up to 60 days. There are three forms of disease in humans: lung (inhalation) anthrax, skin (cutaneous) anthrax and gastrointestinal anthrax. All three forms can cause fatalities, but this is less common in skin infections.

Lung anthrax symptoms are flu-like and can include fever, tiredness, mild cough or chest pain. After several days, the symptoms progress to severe breathing problems and shock.

Skin anthrax is a skin infection. Initially, an itchy lump occurs. Over one to two days, this develops into a blister and then into a painless ulcer with a black centre. If untreated, the infection may spread to lymph nodes and then cause septicaemia (blood poisoning).

Gastrointestinal anthrax symptoms include nausea, vomiting, abdominal pain and diarrhoea. The illness may progress to fever and septicaemia.

Transmission:

People can become infected with anthrax by handling products from infected animals or by breathing in anthrax spores from infected animal products like wool. People can also become infected with gastrointestinal anthrax by eating undercooked meat from infected animals. It is extremely rare for the disease to spread from person to person. In 2001, several people in the USA contracted skin or lung anthrax from spores that were maliciously distributed through the mail.

Treatment:

Various different types of antibiotics can be used to treat anthrax infections.

Control

If anthrax is detected in Queensland, people who are exposed will be informed by public health units and given advice on further management.

Control of anthrax in livestock is important for preventing its spread to people. Animals dying from anthrax usually die suddenly, with only brief illness preceding death. A farmer who suspects anthrax in an animal must notify a government veterinary officer immediately. If anthrax is suspected, the farm will be isolated and herds vaccinated, and the dead animal disposed of appropriately so that contamination of the soil is minimised. See the [Biosecurity Queensland](#) website for further information.

Emergency response plans are in place to protect the public in the unlikely event of a deliberate release of anthrax.

Prevention:

Anyone who handles material potentially contaminated with anthrax should wear appropriate personal protective equipment and ensure that broken skin is protected with sealed waterproof dressings. See the [Biosecurity Queensland](#) website for further information.

Anthrax vaccines exist for use in livestock in Australia, but are not currently registered for civilian human use.

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In some cases where a person has had significant exposure to anthrax spores, antibiotics may be needed to help prevent infection.

Help and Assistance

For further information, please contact your local doctor, community health centre or nearest public health unit.

Other Resources

[Anthrax - information for general practitioners](#), Queensland Health

[Biosecurity Queensland](#) website

Footnotes

Heymann, D., ed. 2008. Control of Communicable Diseases Manual, (19th Ed). Washington, DC: American Public Health Association.

National Health and Medical Research Council, 2008. The Australian Immunisation Handbook (9th Ed.) Canberra: National Capital Printing.

Anthrax. WHO fact sheet number 264; October 2001.

[Anthrax: Guidelines for preparedness, response and management following deliberate release of Bacillus anthracis](#). 2005. Commonwealth of Australia (accessed March 2010).