

Anthrax

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This guidance is for England

Anthrax is a serious bacterial disease, which infects all species of animals and also humans. Cattle seem to be the most commonly affected animals in Great Britain; however, it is rare to see symptoms in cattle as infection is so acute that it actually causes sudden death.

Any ailing animal to which the slightest suspicion of anthrax might be attached must not be moved, killed or bled. It should be isolated and the authorities informed.

Similarly, when an animal is found dead under suspicious circumstances, it should not be moved, skinned, or in any way cut or opened. Other animals, vermin and poultry must be kept away from it and the authorities informed.

Anthrax is notifiable. If you suspect anthrax you must by law immediately notify the Animal and Plant Health Agency (APHA - 03000 200301). Failure to do so is an offence.

What is the possible impact of the disease?

Anthrax is generally fatal and the period of illness in cattle and sheep is so short that affected animals may be found dead without any signs of illness ever being noticed. Occasionally anthrax is not rapidly fatal and an affected animal may be ill for several days before death occurs.

In pigs and horses the disease is almost always fatal, although with a slower onset than in cattle and sheep.

When a fatality due to anthrax occurs in a herd of cattle or flock of sheep it is not uncommon for other animals to have a latent infection and recover. Latently infected pigs can be visibly sick for a few days and recover completely. Any latently infected animals that are subject to severe strain or stress are likely to

relapse and die.

Legislative controls cover:

- veterinary enquiries as to the existence of the disease
- declaration of infected places and service of forms
- prohibitions or control of movements
- disposal of carcase(s)
- cleansing and disinfection
- vaccination and treatment
- issuing and revocation of licences

Movement of animals will be controlled and the local authority has powers to dispose of the carcase by incineration on the infected place.

Clinical signs

The spore-forming bacterium *Bacillus anthracis* causes anthrax. Under certain adverse circumstances each rod-shaped bacillus is able to form itself into a spore. The spores of anthrax are hard to destroy. They resist drying for a period of at least two years. They are able to live in the soil for ten years or more and still be capable of infecting animals.

Anthrax does not typically spread from animal to animal, nor from person to person. The bacteria produce spores on contact with oxygen. These spores are extremely resistant and survive for years in soil, or on wool or hair of infected animals. Then, if ingested or inhaled by an animal, or on entering through cuts in the skin, they can germinate and cause disease.

The bacillus itself is a comparatively delicate organism and easily killed by ordinary disinfectants.

In most cases for cattle, sheep and goats the animal is found dead without having shown any noticeable symptoms beforehand and their carcasses may show no obvious signs of the disease. In other cases the length of illness varies and some animals may display symptoms several days before death. These symptoms may include:

- a thin rapid pulse
- coldness of the ears, feet and horns
- a harsh dry cough
- bloodshot eyes and nostrils or staring eyes
- a very high temperature, shivering or twitching
- loss of appetite
- a decrease in or complete loss of milk
- laboured respirations
- occasionally a small trickle of blood from the nostrils is visible and there may also be blood in the dung

Anthrax infection may cause pigs and horses to die, though less quickly than cattle, sheep and goats. Symptoms in pigs and horses may include a hot, painful swelling in the regions of the throat. In horses, symptoms of acute colic are frequently seen. Pigs may simply go off their food for a day or so but the variation in symptoms they show is very great indeed.

After death the unopened carcase of an anthrax-infected animal may be swollen and blood may ooze from the nostrils or other natural orifices of the body. However, these conditions are not always present and if they are absent anthrax can still not be ruled out.

As sudden death of an animal is often wrongly attributed to lightning strike, a livestock keeper should consult a veterinary surgeon to make sure that the cause of death is not anthrax.

Any sudden or unaccountable death in farm stock should always raise suspicion of anthrax.

What happens if a suspect animal is found?

The flesh, blood, offal and discharges from an anthrax-infected carcass are full of anthrax germs - and therefore dangerous to animals and humans - so it is critical to remember that the carcass of a diseased or suspected diseased animal must not be opened or moved.

In cases of sudden unexplained death, livestock keepers should await veterinary opinion before disposing of the carcass or doing anything else.

In accordance with the Anthrax Order 1991, the occupier of the premises on which there is a diseased or suspected diseased animal must:

- block the drainage system for the part of the premises that contains the carcasses
- fence off the area to prevent the access of animals or poultry to the diseased or suspected animal or carcass; and to any part of the premises on which the animal or carcass, or any dung or discharge from the animal, has been
- place disinfectant at places specified by the veterinary officer
- sterilise any milk and utensils that have been used with the milk from infected animals

Animals that have been in contact with a suspected animal should be watched carefully and isolated at once if they show similar symptoms.

Treatment is seldom possible for animals infected with anthrax because of the rapid and fatal course of the disease once symptoms become apparent. However, if time permits, antibiotic drugs may be used with good effect.

What happens if disease is confirmed?

If, on veterinary investigation, there are reasonable grounds for supposing that disease exists or has existed in the last 56 days, a notice will be served declaring an infected place. Once an infected place has been declared, the following will apply:

- a notice declaring an anthrax-infected place must be displayed at every entrance
- no person may enter any part of the premises unless they are an inspector, the owner of any animal or poultry on the premises, or a person attending any such animal or poultry. The only exception to this is under the authority of a licence granted by a veterinary inspector
- a receptacle containing disinfectant specified by a veterinary inspector must be kept in a convenient position, directed by the veterinary inspector, at every exit from the premises. Fresh disinfectant must be placed in the receptacle daily and whenever directed by a veterinary inspector
- no person may enter the premises unless they wear overall clothing and footwear that are capable of being disinfected or are disposable
- no person may leave the premises until they have thoroughly cleansed and disinfected their overall clothing and footwear; if their overall clothing and footwear are disposable they must be removed and left on the infected place
- no person may leave the premises until they have washed their hands
- nothing must be moved to or from the premises without a pre-issued licence

- any subsequent livestock deaths must be notified to a veterinary officer immediately

The local authority may, in liaison with APHA, arrange for the disposal of infected or suspected diseased carcasses.

The occupier of the premises will normally be required to finally cleanse and disinfect the premises as specified by a veterinary inspector. Only then will a notice lifting the restrictions be issued.

Can people catch the disease?

Yes. Anthrax may cause a raised boil-like lesion on the skin, which develops a black centre. There are two main forms of anthrax infection: cutaneous and inhalation. More information on anthrax in humans can be found on the World Health Organisation website.

Could it affect the food I eat?

According to the World Organisation for Animal Health's information on anthrax, there have been reports of people who lost their animals to anthrax also losing their lives trying to salvage something and consuming the meat from an animal that died. In Great Britain this is highly unlikely as there are strict legal controls on the disposal of infected or suspected infected anthrax carcasses, which are always excluded from the human food chain.

Additional stringent controls in abattoirs are designed to prevent unsafe meat from entering the human food chain.

What can be done to reduce the risks?

Monitor any animals that have been in contact with suspected animals and isolate them if they show signs of infection. Remain vigilant. Regularly inspect your livestock and if you suspect anthrax you must notify the authorities immediately.

Whilst anthrax is difficult to prevent in the first instance due to the nature of infection, the proper disposal of dead infected or suspected infected animals is critical:

- the carcase should not be opened, since exposure to oxygen will allow the bacteria to form spores
- premises must be quarantined until all susceptible animals are dealt with and all carcasses disposed of by incineration by the local authority
- cleaning and disinfection are important, as is control of insects and rodents

Defra recommends good biosecurity to prevent the spread of disease and to improve farm efficiency. Guidance on biosecurity can be found on the GOV.UK website.

Penalties

Failure to comply with trading standards law can lead to enforcement action and to sanctions, which may include a fine and/or imprisonment. For more information please see 'Trading standards: powers, enforcement and penalties'.

Key legislation

Animal Health Act 1981

Anthrax Order 1991

Last reviewed / updated: November 2020

In this update

Clarification of the procedure for carcase disposal

Please note

This information is intended for guidance; only the courts can give an authoritative interpretation of the law.

The guide's 'Key legislation' links may only show the original version of the legislation, although some amending legislation is linked to separately where it is directly related to the content of a guide. Information on amendments to legislation can be found on each link's 'More Resources' tab.

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