

Tetanus

Tetanus is a bacterial disease that can affect most animals. Horses are particularly susceptible because of their environment and tendency to incur injuries. Sadly, infected horses and ponies usually die or require euthanasia. Tetanus is caused by the bacterium *Clostridium tetanii* which can be found in soil and droppings just about everywhere. It survives in the environment for long periods of time. It enters the body through:

- Puncture wounds on the sole of the foot are common sites of infection.
- A wound anywhere on the horses body – even a thorn prick can be the cause and the infection site cannot be located
- Infection can be acquired via the intestines, after eating contaminated soil or droppings, through gastric or intestinal ulcers.
- In foals, infection can occur via the umbilicus (navel).

The tetanus bacteria do not need oxygen (they are classified as 'anaerobic' bacteria) and multiply rapidly in the damaged tissues at the site of the injury. They produce a toxin (tetanus toxin) and it is this potent neurotoxin that causes the classical signs of tetanus. The affected horse will:

- Become stiff and have difficulty moving and eating.
- The third eyelid (membrana nictitans, a membrane which can be easily seen at the inner corner of the eye) starts to protrude across the eye, particularly if the horse is startled.
- The tail is often held out straight and the horse develops an anxious expression because of facial muscle spasm.
- Any stimulus such as loud sound, bright light or touch can exacerbate the signs.
- The horse may sweat.

In advanced cases the horse will collapse with:

- Spasms
- Convulsion
- Respiratory failure.

Most cases of tetanus ultimately result in death of the affected animal. If diagnosed early, large doses of antibiotics, usually penicillin, are used in conjunction with Tetanus Antitoxin injected usually intravenously and intramuscularly. If the horse is able to eat, food should be offered at a height where it can easily reach it. In severe cases, slinging may be necessary. Intravenous fluids and/or catheterization of the bladder may also be necessary. Unfortunately, the chances of recovery are extremely poor if such measures are necessary and euthanasia on humane grounds is usually more appropriate.

Tetanus is a totally and easily preventable disease. Vaccination with 'tetanus toxoid' should be used for all horses and ponies. The initial course consists of two injections given approximately four to six weeks apart followed by boosters at yearly to two year intervals. Foals cannot respond to vaccine given before approximately four months of age but should start a course of vaccine soon after this. As protection before this age foals usually receive tetanus antitoxin soon after birth. They also receive some protection via colostrum (first milk) if the mare is well vaccinated.

