

# Tetanus Factsheet

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Tetanus is caused by production of toxins by the bacterium *Clostridium tetani*. The spores of this bacterium are commonly found in the soil, and can survive in the environment for long periods of time. Wounds often provide an entry point for the bacteria. Puncture wounds to the foot, castration sites, retained placentas and dirty wounds are the most common sites for entry of infection. Deep puncture wounds are particularly dangerous as they provide an ideal anaerobic (low oxygen) site for the bacteria to thrive. However, many tetanus cases have no history of a wound.



## Clinical Signs

Tetanus neurotoxin attacks nerves controlling the muscles of the body. Stiffness and muscle spasm are the classic clinical signs. The affected horse will become stiff and have difficulty moving and chewing. The third eyelid may be retracted across the eye in affected horses. The tail head is often held straight out, and the horse may appear to have an anxious expression due to facial muscle spasm. The horse will be hypersensitive to loud sounds, bright lights, and touch, and these may exacerbate the clinical signs. In advanced cases, the horse may collapse, have convulsions and death may occur from respiratory failure.

## Treatment

Treatment is often unsuccessful with mortality rates as high as 90%. Horses often require euthanasia on

welfare grounds. If diagnosed early, treatment can be attempted. Treatment is aimed at destroying the toxin-producing bacteria. If a wound is present, this will be opened to the air and debrided. Large doses of antibiotics, in conjunction with tetanus antitoxin, will be administered to the horse. If the horse is still eating, food is offered up high. As the disease progresses, it may be necessary to sling the horse to keep it upright. Fluids, catheterisation of the bladder and manual evacuation of faeces may be indicated.

## Prevention

Fortunately, tetanus is easily preventable with vaccination using a tetanus toxoid.

Effective immunity against tetanus requires a primary course of two vaccinations given 4-6 weeks apart, followed by a booster 12 months later. After this, boosters are required every 2-3 years (depending on the brand of vaccine). Primary vaccinations are usually started in horses over the age of 5 months, but vaccination may be recommended in younger animals if the dam is unvaccinated. Foals will receive some immunity from their dam's colostrum if the mare has been vaccinated during late term pregnancy (usually the eleventh month).

If your horse has not been vaccinated or vaccination programme has lapsed and it sustains a wound, it is essential that a tetanus anti-toxin injection is given as soon as possible to prevent tetanus infection. This is separate to the tetanus toxoid vaccination course but will protect your horse for 2-3 weeks.

**Tetanus is a potentially fatal disease and it is dangerous to leave your horse unvaccinated.**



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