

Avondale Veterinary Group

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TETANUS

Of all domestic animals, horses are the most susceptible to tetanus. The disease itself is caused by a bacterium called *Clostridium tetani*, spores of which are often found in soil. The bacterium thrives in an environment where there is no oxygen and so any area of the body where there is damaged tissue, for example, wounds or hoof abscesses are susceptible. In foals, the navel is a possible entry route. The bacterium multiplies in the wound and produces a powerful toxin which attacks the nerves supplying the muscles. The muscles go into spasm, causing the horse to appear stiff and reluctant to move in the early stages.

Other clinical signs as the disease progresses are:

- Increased temperature
- Difficulty moving, swallowing and eating
- Flaring nostrils
- 'Startled' expression
- Sweating
- Erect ears
- Tail held straight out
- Heightened reactions to noise, bright light and touch
- Collapse, convulsions and death from respiratory failure as the muscles allowing breathing are in spasm and therefore paralysed

Approximately 90% of horses who contract tetanus will die within a few days of clinical signs appearing, even with intensive veterinary care. Those who do recover face a convalescence period of six weeks or more. Treatment with penicillin aims to destroy the toxin-producing bacteria and, with the tetanus anti-toxin, attempts to neutralise the neurotoxin which has already been produced. Nursing is extremely important, with the horse being kept in a dark, quiet stable and handled calmly to reduce stimulus which will worsen the muscle spasms. In some cases, intravenous fluids, placing the horse in a sling and feeding via a stomach tube may be necessary. Animals which require such intensive care have a further reduced chance of recovery and euthanasia should be considered.

Vaccination against tetanus is the minimal vaccination requirement for all horses, ponies and donkeys and through vaccination; tetanus is a completely preventable

disease. The primary course of vaccinations requires an injection of tetanus toxoid any time from four months of age and then a second injection 4-6 weeks after the first. These injections can be combined with vaccinations for Equine Influenza. Thereafter, a booster is only required every 2 years. Any unvaccinated horse which suffers a wound, should receive tetanus anti-toxin and tetanus toxoid.

Pregnant mares should be vaccinated and receive a booster 4-6 weeks prior to foaling. This means antibodies will be passed through the colostrum to the foal. Once these maternally derived antibodies start to fall, the foal can be vaccinated. We also recommend that newborn foals receive an injection of tetanus antitoxin within 24hrs of birth. This is included in our routine newborn foal check, along with examining the placenta and checking the mare. Please contact the surgery for more information on vaccination or check our web site news page.