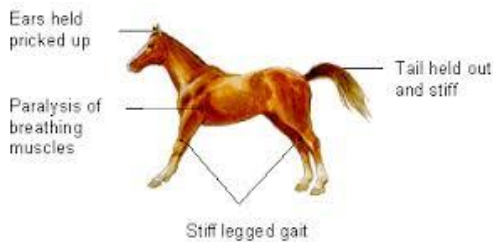


TETANUS Aka Lockjaw

What is it?

Tetanus is an infection caused by a toxin which is released by the bacteria called *Clostridium Tetani*. This toxin causes spasms throughout the body. It stops the body being able to relax any of its muscles. It affects not only the legs and head but also the chest, the heart, the throat, the eyes and basically everything in the body and paralyses them in a rigid tension.



The tetanus bacteria are found everywhere. It lives in soil, especially around animals and farms. It gains access to the body through the smallest of wounds. It may be a wound that is never noticed, for example the horse biting its cheek by accident or getting pricked by brambles. Often the bacteria will get in via puncture wounds to the hooves, e.g.

standing on a nail. The bacteria breed and release their toxin. It is this toxin that damages the nerves and causing the symptoms seen. By the time symptoms start, just using antibiotics to kill the bacteria will not save the horse as the toxin has already been released in lethal amounts. This is not Black Beauty, most horses with Tetanus do not survive.

What are the symptoms?

Symptoms start 7-21 days after the bacteria have entered the body.

- Usually it starts around the head area. The jaw becomes stiff until eventually they can't open it at all (hence lockjaw) and often the 3rd eyelid comes across as the eyeball is pulled back and they get a startled expression which they can't relax.
- They become hypersensitive so every noise, bright light or movement is terrifying and seems so much louder and closer.



- The horse will walk stiffly, if at all, struggling to bend their legs. Often the tail head is raised and tense.
- They can't move their neck meaning they can't put their heads down to take a drink, even if they could open their mouths or swallow.
- At this point the horse is terrified, they know everything that is happening and they cannot move to get away. Taking their only known defence away from them. They are often dripping in sweat.
- The horse can't swallow so they will dribble saliva.
- Eventually they fall and can't get up. Their rib cage seizes up so the horse cannot draw in air to breathe. They cannot urinate so sometimes their bladders will rupture.



- Eventually they will die either from suffocation, dehydration or a heart attack.

What is the treatment for Tetanus?

Over 90% of infected horses will die even with treatment. Often the owner will quickly decide to put their horse to sleep rather than see their suffering with such a small chance of survival. We can give an anti-toxin which is designed to work against the toxin rather than the bacteria. However, it can only neutralise the toxin before it has attached to the nerves. So generally, by the time symptoms have started, it is too late. But vets will always give very



large doses of the anti-toxin in an effort to prevent it getting worse. Other than this, all that can be done is support the horse's body systems. This is done with things like fluids, soft mushy food or special food given directly into the vein, muscle relaxants, sedatives, dark and quiet stable with minimal handling, painkillers, antibiotics and in the most severe cases, be put on a ventilator. Then the horse must wait until the toxin wears off. This could be weeks or even months.

How do I prevent my horse from getting Tetanus?

The only way to keep your horses safe is by vaccinating them. The vaccination is very effective and cheap. There are little to no side effects and the horse will always be protected even from wounds too small to notice. We often have owners that say "We just call the vet for the anti-toxin if it gets a cut", but we have seen many horses die from Tetanus where no wound was ever found, so this is not a safe way to keep horses. Also, the anti-toxin is very expensive. It is much cheaper, simpler and safer to just vaccinate your horse!



If your horse gets a wound and is not covered for tetanus, your vet will give the anti-toxin, but this only last 3-4 weeks. This is different from the vaccine. The anti-toxin protects the horse immediately, standing by ready to 'catch' any toxins that are floating around. But the anti-toxin starts to wear off after 3 weeks. The vaccination only starts to protect after the second vaccine. This is because it has to 'train' the horse's body to recognise and fight the bacteria as they enter.

The initial starter course is two injections 4-6 weeks apart. The horse's first booster should be 12 months later, then every 2 years after this.



Brood mares should be vaccinated, they are at high risk from Tetanus and so are their foals. When a mare is vaccinated, their foals are protected by their milk. Their foals should be vaccinated from 4-5 months of age. When a mare is not vaccinated, their foals should be given an anti-toxin after birth and be vaccinated at 4-6 weeks of age. This vaccine will likely not be fully protected because of their poor immune system so they could need another booster course after weaning.