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## **Shortage of Tetanus Antitoxin Threatens**

Dr Ashley Vander Wey

### **Dear Dr. Weldy's:**

My Veterinarian mentioned a shortage of tetanus antitoxin. Should I be worried about this? Is tetanus even that big of a deal?

-Doubting Thomas

### **Dear Thomas:**

First, let's quickly talk about what tetanus is. Tetanus is an often fatal disease caused by the neurotoxins that are produced by the bacteria, *Clostridium tetani*. This is a bacteria that is present in the soil, that gastrointestinal tract and manure of horses, other animals and even humans.

The bacteria produces spores that can survive in the environment for years, presenting a long-term risk of exposure to horses and those who work in areas where horses are kept. Tetanus is not contagious. It occurs by the contamination of puncture wounds, lacerations, surgical incisions, and the umbilical cords of foals and the reproductive tract of mares after a traumatic foaling.

Signs of tetanus in a horse includes muscular stiffness and spasms, difficulty eating, protrusion of the third eyelid, a horse that is easily startled, the tail is held out straight, nostrils will flare and the horse may sweat. Any loud sound, bright light or touch can aggravate the signs.

As the disease progresses, the horse will collapse, spasm and convulse, and will die from respiratory failure. 50 to 75 percent of horses infected with tetanus will die from the disease, even with treatment.

Treatment goals include killing the bacteria so that no more toxin is produced and decreasing the effects of the toxins that are already circulating in the horse. Antibiotics (usually penicillin) and tetanus antitoxin are often used. In severe cases, the horse may be managed in a sling and intravenous fluids and bladder catheterization may be necessary. If these measures are necessary, chances for recovery are dismal and euthanasia is often the most human option.

Sounds pretty bad, right? So what can we do to prevent this serious disease? Luckily for horses owners, tetanus is easily preventable via a vaccination.

An unvaccinated, adult horse should be given two doses of tetanus toxoid at a 4 to 6 week interval and then yearly boosters. If a horse sustains a wound or undergoes surgery six or

more months after their prior tetanus booster, they should be given a tetanus toxoid vaccine immediately when the wound is noticed.

Foals born to unvaccinated mothers should have 3 tetanus toxoid injections beginning at 1-4 months of age with four weeks between doses and yearly vaccination after that. Foals born to mares vaccinated prepartum can be vaccinated with 3 tetanus toxoid injections starting at 4-6 months of age with 4 to 6 weeks between the first two doses and the third dose being given at 10-12 months of age with yearly vaccinations to follow.

Tetanus antitoxin is indicated in situations when a horse is at risk of contracting tetanus (ie. the horse sustains a wound) and has not been vaccinated appropriately for tetanus. It is also an EXTREMELY important component of tetanus treatment.

Veterinarians are dealing with a serious shortage of tetanus antitoxin. It is more important than ever to vaccinate every horse for tetanus.

Previously vaccinated mares should receive a booster vaccine 4 to 6 weeks before foaling. Unvaccinated pregnant mares should receive a two-dose series 4 to 6 weeks apart and receive a booster again 4 to 6 weeks before foaling. Vaccinating pregnant mares is crucial to protecting newborns via colostrum.

Those who have given tetanus antitoxin to foals born to unvaccinated mothers will likely find there is NO antitoxin available this spring. Horse owners MUST be proactive and vaccinate brood mares to prevent infection in newborns.

To learn more about tetanus vaccination, contact your local veterinarian.