

Stall Talk - Vaccines

A review of management tips for the horse owner.

Prepared By

Bold Springs Veterinary Service, Jason R. Wall, DVM

“So Doc, why is it so important to give my horse all these shots?”

Whether you have a trail horse, a hunter/jumper, a rodeo horse, or just a pasture ornament, he/she needs at least the basic shots. The exact vaccinations needed depend on the level of exposure to disease. The diseases we mainly vaccinate against include: Eastern & Western Equine Encephalomyelitis (EEE & WEE), Tetanus, West Nile Virus (WNV), Rabies, Influenza (Flu), Rhinopneumonitis (Rhino), Potomac Horse Fever (PHF), and Strangles.

-Eastern & Western Encephalomyelitis are two deadly viral infections of horses. They are spread by biting insects such as flies and mosquitoes, which make them most prevalent during the warmer months. These diseases affect the central nervous system of horses and cause depression, weakness, twitching of muscles (especially face and shoulder muscles), paralysis and death. Treatment is limited to supportive care and few horses survive. Humans are susceptible to these viruses and when infected usually show mild flu-like signs. Prevention of these diseases in horses is best achieved by vaccination with an initial two shot series followed by annual boosters, preferably just before the warmer months.

-Tetanus is caused by a toxin produced by a bacterium commonly found in soil. The bacteria usually do not cause a problem unless a horse has an injury which breaks the skin, such as a cut or puncture wound. When the skin barrier is broken the bacteria invade the body and grow, producing a toxin which affects the horse's nervous system. Typical signs are muscle stiffness, muscle tremors, restriction of mouth movements (Lock Jaw), visibility of the third eyelid, and exaggerated response to normal noises. The muscle stiffness usually results in an unsteady gait, eventually causing the horse to go down. This is soon followed by death. Treatment includes supportive care, antibiotics, and antitoxin if available, the cost of which can be very high with poor results. Recovery, if any, is usually very slow. Most horses with signs of tetanus die even with aggressive treatment. Prevention is the best way to “treat” tetanus with an initial two shot vaccination series followed by an annual booster and when injuries occur.

-West Nile Virus is a potentially deadly nervous system virus. The virus is transmitted by mosquitoes and affects a broad range of species including birds, horses, and humans. A horse that becomes sick with West Nile will appear depressed, lethargic, and weak, may have muscle twitching and appear uncoordinated, particularly in the rear limbs. Over a few days the condition may worsen to varying degrees of neurologic signs including paralysis. Just as with other viruses, there is no specific treatment, only supportive care. The prognosis is very poor for affected horses. Vaccination is the best defense. After an initial two shot series, boosters are given once or twice a year in early spring and late summer.

-Rabies is a deadly disease which can affect horses, as well as other mammals, and humans. The disease is caused by a virus and is spread by the bite of an infected animal, most often skunks, foxes, and raccoons. The signs of rabies can vary greatly but may include depression or aggression, drooling (due to the inability to swallow), weakness of the rear legs, straining to urinate or defecate, paralysis, and eventually death. Infected horses can spread the disease to humans through their saliva. There is no treatment for rabies but it can be prevented through annual vaccinations.

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-Influenza is an infectious respiratory disease of horses caused by a virus. This disease is easily spread from one horse to another and can affect all ages but is most often reported in young horses. Influenza, by itself, is usually a very mild disease and is limited to decreased appetite, high fever, and an occasional dry cough. If a horse with influenza is stressed, however, through hard workouts or bad weather conditions the disease can progress to pneumonia due to a secondary bacterial infection. Treatment for influenza includes: rest, isolation to prevent spread of the disease, fever reducing drugs (such as Banamine or Bute), and frequently antibiotics to prevent secondary bacterial infections. Prevention is centered on vaccinations that are given as shots or given up the nostril. Frequency of vaccination is typically twice a year.

-Rhinopneumonitis (Rhino) is another infectious disease of horses caused by a virus. This disease spreads rapidly among horses, especially during the colder months and when horses are grouped together. Rhino predominately causes respiratory disease but can cause abortions in pregnant mares and on rare occasions it can cause neurologic disease. Horses affected by this disease usually show signs of fever, runny nose, and coughing. Just like influenza, rhino is a mild disease lasting only a few days unless complicated by a secondary bacterial infection. Treatment and prevention for rhino is the same as for influenza with the exception of pregnant mares. Mares should be vaccinated against rhino at 3, 5, 7, & 9 months of pregnancy.

-Potomac Horse Fever is not a well-known disease to many people. It is caused by a bacterium and thought to be spread by an insect. The complete life cycle is not totally understood but may involve flukes and aquatic insects. Signs of this disease are high fever, colic with profuse watery diarrhea, and founder. Treatment includes fluids to prevent dehydration, antibiotics, and preventive measures for founder. Even with aggressive treatment many horses with this disease will die. Until recently Potomac Horse Fever was not reported in this area, with most cases remaining in the northern part of the state; however, PHF has since become more widespread. Due to its association with an insect, summer and early fall are the most likely time of infection. With this in mind vaccination against this disease should include an initial two shot series with annual boosters in early spring and/or mid-summer.

-Strangles is a bacterial infection of the upper respiratory tract. Initially, an infected horse has a fever, is lethargic, and may have a snotty nose. This usually leads to varying degrees of swelling and abscess formation involving the lymph nodes under the jaw. Swellings can become massive and progress to a point where the horse's wind pipe is obstructed causing respiratory difficulties. Other potential complications include pneumonia and spreading of the infection to other lymph nodes in the body. Strangles is a highly contagious illness and vaccination is one way to protect your horse. The vaccine is given up the nose and requires a booster after the initial dose. Annual boosters are given.

Remember, not all horses need all vaccinations on a single schedule. Some horses may require only the core vaccines, others may need additional ones. A vaccination program should be tailored to your horse's specific needs. We will be glad to answer any questions and help establish a vaccination protocol for your horse, just give us a call. Don't forget to deworm!

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