



## Risk-Based Vaccines

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### **Risk-Based Vaccines**

Horses are routinely vaccinated to protect them from diseases that are highly infectious or pose a risk of severe disease for the horse or owners. As a vaccine program is developed for your horse, it will always include the 5 “core vaccines” which include Rabies, Eastern and Western Encephalomyelitis, West Nile and Tetanus. Risk-based vaccines are vaccinations included in a vaccine program after the performance of a risk-benefit analysis. Risk-based vaccines may vary depending on the geographical location, the population of horses within the area or specific to farms and to meet the individual horse’s needs. It is important to consult with your veterinarian to determine the best vaccination protocol for your horse before choosing to administer or decline vaccinations. We will discuss four diseases and the horses most at risk for each that are commonly included in risk-based vaccine protocols.

### **Influenza and Rhinopneumonitis**

Equine influenza (EIV) is one of the most common infectious diseases of the horse’s respiratory tract. Influenza is endemic, or regularly found, in the United States and is highly contagious. It is spread by contact with infected animals, commonly when the infected horse coughs and excretes the virus. Preventing entry of the virus into an equine population through means of quarantine and appropriate vaccination is key to preventing this disease. Clinical disease in horses can range from very mild to severe, and commonly includes cough and mucopurulent nasal discharge. Factors associated with an increased risk of contracting EIV include less than 5 years of age and frequent contact with large numbers of horses. Candidates for EIV vaccination include horses between the age of 1 and 5, horses in a boarding facility, horses that are competitively ridden, or any horse exposed to a great number of other horses for any variety of reasons.

Rhinopneumonitis is caused by Equine Herpesvirus types 1 and 4 (EHV-1, EHV-4). EHV-1 and EHV-4 infect the respiratory tract and cause a wide range of clinical disease, from mild signs to severe respiratory disease. Respiratory clinical signs include fever, lethargy, inappetence, nasal discharge, cough, and enlarged lymph nodes. EHV-1 can also cause neurologic disease as well. With the neurologic form, there are typically minimal respiratory signs, fever (rectal temperature greater than 101.5 degrees F) may be the only warning sign. Neurologic signs appear suddenly, and the disease usually progresses rapidly. Clinical signs of the neurologic disease may include incoordination, hindlimb weakness, loss of tail tone, urine dribbling, lethargy and nasal discharge. Both types are spread by direct contact with an infected horse or through contact with nasal secretions from an infected horse. Indication for vaccination against EHV-1 and EHV-4 include young horses from foals to yearlings, and those regularly exposed to new horses, such as show horses or those in a boarding facility with a high amount of traffic in and out of the barn.

## **Strangles**

Strangles is a highly contagious disease caused by a bacterium called *Streptococcus equi* subspecies *equi*. Strangles is spread through direct contact with infected horses or by contact with objects that have been contaminated with nasal discharge or pus from an infected horse. Strangles gets its name from the characteristic enlarged or abscessed lymph nodes below the mandible. As the lymph nodes swell, they may compress the airway of the horse, causing airway obstruction and potentially death as a result, leading to its name. Additional clinical signs may include fever, anorexia, and mucopurulent nasal discharge. Strangles commonly affects young horses, such as weanlings and yearlings, however horses of any age can contract the disease. Horses frequently in contact with new horses, such as show horses or those in a boarding facility with a high amount of traffic in and out of the barn are most at risk.

## **Potomac Horse Fever**

Once thought to be primarily a Northeastern disease, Potomac horse fever (PHF) has found its way into the wet regions of the South. PHF is caused by a bacterium, *Neorickettsia risticii*. This bacteria has been identified in freshwater snails and from trematodes released from the snails. A possible route of exposure is believed to be accidental ingestion of aquatic insects that carry the trematode with the bacteria while grazing. Clinical signs include fever, diarrhea, laminitis, and colic symptoms. Horses living in or around very wet environments, such as a marsh-type area, are at increased risk of exposure to PHF.

For further guidance on risk-based vaccine guidelines, to determine if your horse is at risk or for further information on these diseases or available vaccine options, please consult with your veterinarian.

Contact [Brandon Equine Medical Center](#) at 813-643-7177 or email [info@brandonequine.com](mailto:info@brandonequine.com) with any questions regarding this topic.

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