

# Equine Vaccination

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Vaccinations are an important part of equine healthcare and the benefit of these “routine shots” should not be underestimated. The horse is a unique species and is affected by a host of debilitating diseases. With an appropriate vaccination strategy tailored to your specific horse your equine friend can lead a happy healthy life with little risk of infection from many deadly diseases. Factors that play a role in the vaccine protocol include: geographical location, age of the horse, efficacy of the vaccine, and risk vs benefit of the vaccine. The southeast is endemic for mosquito borne viruses, especially West Nile Virus and Eastern Equine Encephalitis making appropriate vaccination critical. Please consult with your veterinarian to develop a customized vaccine protocol for your horses.

Equine vaccines can be divided into “Core” and “Non-core” vaccines. Core vaccines protect against diseases that are endemic in an area, reportable by law, highly infectious, or zoonotic. These include the following: Tetanus, Eastern/Western Equine Encephalitis, West Nile, and Rabies. Non-core or risk based vaccines are given depending on environment, and risk of exposure. These include the following: Equine Herpes Virus, Equine Influenza, Strangles, Rotavirus, Botulism, and Equine Viral Arteritis.

## Review of the Diseases

### Core

**Tetanus:** Caused by a toxin producing bacteria, and is found in the intestinal tract and the soil. Can enter the body through wounds, or the umbilicus of newborns. Clinical signs include: muscle stiffness, inability to walk, and a prolapsed third eyelid. Roughly 80% of horses affected by Tetanus will die.

**West Nile:** Caused by a virus that is transmitted by mosquitoes after feeding on a viremic bird. The disease has been in the United States for the past 15 years and can affect both horses and humans. However, it is not transmitted from horse to human. Clinical signs include: incoordination, muscle tremors, paralysis, fever,

change in demeanor, and convulsions. Roughly 30-40% of horses affected by West Nile will die.

Eastern Equine Encephalitis (EEE): Caused by a virus that is transmitted by mosquitoes after feeding on a viremic bird. This disease does not transmit from horse to horse or from horse to human. However, on rare occasion humans can become infected. Clinical signs include: fever, incoordination, paralysis, change in behavior, and convulsions. Roughly 90% of horses affected by Eastern Equine Encephalitis will die.

Rabies: This is a debilitating virus that causes severe neurologic disease. Clinical signs include: aggression, change in behavior, seizures, paralysis, and hypersalivation. 100% of horses affected by Rabies will die.

### **Non-Core or Risk Based**

Strangles: Caused by a highly infectious bacteria called streptococcus equi. Clinical signs include: fever, nasal discharge, and enlarged lymph nodes.

Equine Influenza: Common respiratory virus found in the horse and is highly infectious. Clinical signs include: fever, depression, and coughing.

Equine Herpes Virus: EHV1 and 4 can infect the respiratory tract especially in weanlings and yearlings. Clinical signs include: fever, depression, coughing, and nasal discharge. EHV1 can also lead to neurological disease and abortions.

Botulism: Caused by a toxin producing bacteria, that gains access to the body through an open wound or oral ingestion. Clinical signs include: weakness, paralysis, and a flaccid tongue.

Rotavirus: Caused by a virus that affects foals in the first few weeks of life. Clinical signs include: diarrhea, lethargy, and fever.

Equine Viral Arteritis: Caused by a virus that is transmitted through the respiratory tract, venereally, or congenitally. Clinical signs include: depression, lethargy, dependent edema, fever, and abortion.