



Prevention of Common Equine Diseases

Georgette Plaughter, Tucker County Extension Agent, WVU Extension Service

Preventing equine disease is essential for the health and well-being of all equine species and the entire equine industry. Historically high numbers of horses in the United States and the increase in equine events contribute to greater opportunities for comingling of all equine species. As a result, diseases can spread rapidly within populations of equines and across many areas.

The following information will assist you in initiating a disease prevention program for your horses, ponies, mules, or donkeys. Regardless of the size of your equine, whether it be a draft breed or a miniature, vaccines are administered in the same dosages. It is important that you develop a relationship with a veterinarian to ensure that you vaccinate for diseases that your equine may come in contact with. For minimal cost, equine owners can vaccinate for common diseases, thereby preventing expensive treatment and possible death of their animal(s).

Whether you have a “backyard” horse that never leaves the farm, or you compete in equine events regularly, a vaccination program is highly recommended. You also should become familiar with the vital signs of a healthy equine (Table 1). If your animal becomes ill, you can take its vital signs prior to calling your veterinarian. The veterinarian will then be able to recommend treatment that should be started before he or she arrives.

Rectal Temperature	99.5 to 101.3°F
Heart Rate (Beats/Minute)	28 to 40 (adults), 45 to 60 (foals 6-12 months), 100 (newborn foals)
Respiratory Rate	8 to 16 breaths/minute
Estrous Cycle	21 days
Estrus	3 to 14 days
Gestation Length	338 +/-15 days (highly variable)

Common Equine Diseases

Equine Encephalomyelitis (VEE, EEE, WEE)

The disease, also known as “Sleeping Sickness,” has three common types: Venezuelan, Eastern, and Western. It is transmitted by mosquitoes that have acquired the virus from birds and rodents. Symptoms include nervousness, drowsiness, drooping ears, abnormal gait and circling, and recumbency. Paralysis and death occur in the final stages. An approved vaccine is available.

Equine Infectious Anemia (EIA)

This disease is transmitted in the blood from infected animals by biting flies and mosquitoes and from infected or dirty needles and equipment. There is no vaccine or treatment available. A Coggins Test detects the disease.

Equine Protozoal Myeloencephalitis (EPM)

Opossums, which ingest the organism (*Sarcosysta neuroma*), are the definitive host. They shed the parasite (sporocyst) in their feces. Horses consume the sporocyst from eating infected grass, hay, or grain. EPM affects the central nervous system and causes incoordination and weakness. No vaccine is available. Preventing opossums from accessing food supplies is critical.

Equine Viral Arteritis (EVA)

This infectious viral disease causes abortions and severe outbreaks of respiratory disease. The virus affects the respiratory and reproductive systems with flu-like symptoms such as fever, depression, loss of appetite, diarrhea, excessive tearing, nasal discharge, and coughing.

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Table 2. Vaccination Schedule: Pleasure, Work, Performance, and Show Horses

<i>Vaccine</i>	<i>Advice</i>	<i>When to Administer</i>
Equine Encephalomyelitis (EEE/WEE)	Recommended	Annually (spring) to every six months
Equine Viral Rhinopneumonitis (EHV-1 and EHV-4)	Recommended Optional	Performance and Show Horses: Every 3 to 6 months Pleasure and Work: Biannually
Influenza	Recommended Optional	Performance and Show Horses: Every 3 to 6 months Pleasure and Work: Biannually
Potomac Horse Fever	Recommended	Annually (for horses in areas near streams, rivers, lakes where disease is known to occur)
Tetanus	Recommended	Annually
West Nile Virus	Recommended	Annually (initial shot followed by 3-month booster)
Equine Viral Arteritis (EVA)	Optional	Annually (three weeks prior to breeding stallions and mares)
¹ Rabies and ² Strangles	Optional	¹ Annually (if risk is high) and ² Semiannually (if risk is high)

Equine Viral Rhinopneumonitis (Rhino)

Rarely fatal, this herpesvirus can cause long-time illness. This disease causes respiratory tract problems, abortion, foal death, and neurological disease. EHV-1 and EHV-4 are two common types.

Influenza

Influenza is caused by Myxoviruses. While usually not fatal, it is highly contagious and one of the most common respiratory diseases of horses. Symptoms include high fever, depressed appetite, watery nasal discharge, and hard, dry cough.

Leptospirosis

This disease is spread through urine and water contamination by infected animals. It causes "moon blindness," kidney disease, hemolytic anemia, and abortion. No approved vaccine for horses is available, but the disease can be treated with antibiotics.

Potomac Horse Fever

The *Neorickettsia* organism, found in flukes in water snails, causes this

disease. When the flukes "hatch" into the water, they invade caddis and mayfly larvae. Adult caddis and mayflies are attracted to lights at night. The adults may die, falling into and contaminating the horse's feed supply. Symptoms include mild depression, decreased appetite, fever, decreased or absent gut sounds, and watery diarrhea within 24 to 48 hours. Death results in about a third of affected horses.

Rabies

Rabies is most commonly carried by wildlife such as raccoons, skunks, possums, foxes, etc. It can be transmitted to any mammal through blood or saliva. It usually is not a problem unless the area has known rabies outbreaks. Although rare, rabies is always fatal in horses. Vaccines are available.

Rotavirus A

This viral diarrhea is found only in foals. Symptoms include depression, anorexia, and watery, smelly diarrhea. It is usually seen in foals less than 2 months of age.

Strangles

Caused by *Streptococcus equi*, strangles is an acute, contagious upper respiratory disease. Symptoms include anorexia, fever, nasal discharge, upper respiratory infection, and swollen lymph nodes under the jaw. Abscesses in the lymph nodes will usually break and drain 10 to 14 days after the onset of symptoms. Infected horses should be isolated as soon as possible.

Tetanus (Lockjaw)

Tetanus is caused by *Clostridium tetani*, which can be found in equine manure and contaminated soil. Symptoms include difficulty walking, prolapse of third eyelid, spasms of jaw, and death by asphyxiation. All horses should be vaccinated for this disease.

West Nile Virus

This mosquito-borne virus occurs when infected birds are bitten by mosquitoes, which then bite other birds, humans, and horses. Symptoms include incoordination, muscle twitching, fever, weakness, and partial paralysis. Death rates are 40%.

Table 3. Vaccination Schedule: Pregnant Mares

<i>Vaccine</i>	<i>Advice</i>	<i>When to Administer</i>
Equine Encephalomyelitis (EEE/WEE)	Recommended	Annually (timed 4 to 6 weeks prefoaling)
Equine Viral Rhinopneumonitis (EHV-1 and EHV-4)	Recommended	EHV-1, during 5th, 7th, and 9th months of gestation (killed vaccine) and EHV-1 and EHV-4, 4 to 6 weeks prefoaling
Influenza	Recommended	Biannually with one booster 4 to 6 weeks prefoaling
Potomac Horse Fever	Recommended	Annually (for horses in areas near streams, rivers, lakes where disease is known to occur)
Tetanus	Recommended	Annually (timed 4 to 6 weeks prefoaling)
West Nile Virus	Recommended	Annually (initial and 3-month booster), 4 to 6 weeks prefoaling
¹ Rabies and ² Stragles	Optional	¹ Annually (if risk is high) and ² Semiannually (if risk is high)

Table 4. Recommended Vaccination Schedule: Foals

<i>Vaccine</i>	<i>When to Administer (Foals from unvaccinated mares)</i>	<i>When to Administer (Foals from vaccinated mares)</i>
Equine Encephalomyelitis (EEE/WEE)	4, 5, and 6 months of age	6, 7, and 9 months of age
Equine Viral Rhinopneumonitis (EHV-1 and EHV-4)	4, 5, 7, and 10 months of age	4, 5, 7, and 10 months of age
Influenza	6, 7, and 8 months of age	9, 10, and 12 months of age
Tetanus	At birth and again at 3 and 4 months of age	6, 7, and 9 months of age
West Nile Virus	4, 5, and 6 months of age	4, 5, and 6 months of age
Equine Viral Arteritis (EVA)	6 to 12 months of age (Intact colts to be breeding stallions)	6 to 12 months of age (Intact colts to be breeding stallions)

Sources

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