

West Nile Virus and Horses

Q. Has West Nile virus caused severe illness or death in horses?

A. Horses are affected by WNV much more often than any other domestic animals. Many horses infected with WNV do not develop any illness, but of horses that become ill about one-third (33 percent) die or need to be euthanatized. Other livestock and poultry do not commonly show any illness if infected with WNV.

Q. What are the symptoms of WNV in horses?

A. Horses may develop lethargy, fever, hindquarter weakness, involuntary muscle contractions, muscle rigidity, excitability, loss of coordination, head tilt, impaired vision, inability to swallow, circling, staggering gait, convulsions, paralysis and coma.

Q. How common is WNV in horses?

A. In 2002, 40 states reported 14,717 cases of West Nile virus infections in horses as of 12/31/02.

Q. How do the horses become infected with West Nile virus?

A. The same way humans become infected—by the bite of infectious mosquitoes. The virus is located in the mosquito's salivary glands. When mosquitoes bite or "feed" on the horse, the virus is injected into its blood system. The virus then multiplies and may cause illness. The mosquitoes become infected when they feed on infected birds or other animals.

Q. How does the virus cause severe illness or death in horses?

A. Following transmission by an infected mosquito, West Nile virus multiplies in the horse's blood system, crosses the blood brain barrier, and infects the brain. The virus interferes with normal central nervous system functioning and causes inflammation of the brain.

Q. Can I get infected with West Nile virus by caring for an infected horse?

A. West Nile virus is transmitted by infectious mosquitoes. There is no documented evidence of person-to-person or animal-to-person transmission of West Nile virus. Normal veterinary infection control precautions should be followed when caring for a horse suspected to have this or any viral infection.

Q. Can a horse infected with West Nile virus infect horses in neighboring stalls?

A. No. There is no documented evidence that West Nile virus is transmitted between horses. However, horses with suspected West Nile virus should be isolated from mosquito bites, if at all possible.

Q. My horse is vaccinated against eastern equine encephalitis (EEE), western equine encephalitis (WEE), and Venezuelan equine encephalitis (VEE). Will these vaccines protect my horse against West Nile virus infection?

A. No. EEE, WEE, and VEE belong to another family of viruses for which there is no cross-protection.

Q. Can I vaccinate my horse against West Nile virus infection?

A. In February, 2003, the USDA-APHIS' Center for Veterinary Biologics issued a full license for an equine WNV vaccine. According to efficacy study results submitted to the USDA by the manufacturer, 95% of the horses vaccinated with 2 doses and challenged with live virus 12 months later remained free of infection. Because use of this vaccine is restricted to veterinarians, you need to contact your veterinarian to find out more about its use in your area. The manufacturer of the vaccine recommends giving two intramuscular doses of 1 milliliter each, 3 to 6 weeks apart, followed by an annual booster. The booster should be given just prior to the start of the mosquito season in your area.

Q. How Safe is the Vaccine?

A. The vaccine is a killed virus product. Licensing required that the product be shown to be safe and pure with a reasonable expectation of preventing illness caused by WNV. However, the vaccine is not recommended for horses in the first trimester of pregnancy. As with any vaccine, horse owners should consult with their veterinarian before administering this product.

Q. How long will a horse infected with West Nile virus be infectious?

A. We do not know if an infected horse can be infectious (i.e., cause mosquitoes feeding on it to become infected). However, previously published data suggest that the virus is detectable in the blood for only a few days.

Q. What is the treatment for a horse infected with West Nile virus? Should it be destroyed?

A. There is no reason to destroy a horse just because it has been infected with West Nile virus. Data suggest that most horses recover from the infection. Treatment would be supportive and consistent with standard veterinary practices for animals infected with a viral agent.

Q. Where can I get more information on horses and West Nile virus?

A. Visit the USDA Web site [Animal and Plant Health Inspection Service \(APHIS\)](#). ✱

Q. Are there any restrictions on the movement of equines?

A. The European Commission of the European Union (EU) has notified USDA-APHIS that **as of 23 November 2001** they have updated requirements related to equine animals being imported from the United States. The new requirement is that a supplementary certification must be added to the animal health certificate. The supplementary certification should state that the equine animal described in the animal health certificate complies with one of the following conditions:

- it was not vaccinated against West Nile virus, or
- it was vaccinated against West Nile virus with an inactivated vaccine on at least two occasions at an interval of between 21 to 42 days, the last vaccination being carried out not later than 30 days prior to dispatch on——(insert date)."

Q. Will horses affected by the virus be quarantined in the United States?

A. No. Since infected horses do not appear to be carriers for the disease, it is unlikely a quarantine would be necessary.