

West Nile Virus

A Risk to Horse in Massachusetts?

What is West Nile virus (WNV) disease?

West Nile virus (WNV) disease is a rare disease caused by a virus. In a small percentage of people infected by the virus, the disease can be serious, even fatal. The virus that causes WNV disease occurs in Europe, Africa, Australia and Asia. It was first identified in the United States during the summer of 1999. WNV grows in birds, and it is transmitted from bird to bird and from birds to humans by mosquitoes. Horses bitten by mosquitoes carrying WNV can also become sick.

How many horses have been infected with WNV in the United States?

During the 1999 New York outbreak, 25 horses had clinical signs of WNV disease, and 9 of these (36 %) died or were euthanized. Blood tests on horses in the affected area showed that up to half of those tested may have been infected, suggesting that the vast majority of infected horses do not develop clinical illness.

What are the signs of WNV disease in horses?

Clinical signs in horses with West Nile virus disease vary. Most affected horses develop an unsteady gait, generalized weakness, and muscle weakness of the hind limbs. Fever is not usually present. A small number of horses develop muscle weakness progressing to paralysis of all four limbs, recumbency, and death or euthanasia within 2 to 9 days. Animals that recover do so without any significant consequences.

If my horse is infected with WNV, do I have to euthanize or quarantine it?

Horses affected by WNV do not need to be euthanized. Horses are humanely euthanized only when they are suffering from illness from which they will not be able to recover. Also, since infected horses do not appear to be carriers for the infection, it's unlikely a quarantine would be necessary.

If my horse is infected with WNV, is there a risk that I will become infected or my other horses will become infected?

There is no documented evidence of animal-to-person or animal-to-animal transmission of WNV, so someone caring for an infected horse is very unlikely to get infected with WNV. Also, a horse infected with WNV is very unlikely to infect horses in neighboring stalls.

Is the Eastern Equine Encephalitis (EEE) vaccine protective against WNV?

No. If your horse is vaccinated against EEE virus, unfortunately it will not be protected against WNV infection. Although EEE virus is also carried by birds and transmitted by mosquitoes, it belongs to another family of viruses for which there is no cross-protection. There is no approved vaccine currently for WNV for horses or for people.

What steps can I take to protect my horse from infection with WNV?

Horse owners can take steps to reduce the chances that their horses will be exposed to WNV. The best way to do this is by removing any potential sources of stagnant water in which mosquitoes can breed.

- Dispose of or regularly empty any water-holding containers on your property.
- Dispose of any discarded tires.
- Drill holes in the bottom of recycling containers that are left outdoors.
- Clean clogged roof gutters. Turn over plastic wading pools or wheelbarrows when not in use.
- Do not allow water to stagnate in birdbaths, and aerate ornamental pools or stock them with fish.
- Clean and properly chlorinate swimming pools that are not in use, and be aware that mosquitoes can breed in the water that collects on swimming pool covers.
- Use landscaping to eliminate stagnant water that collects on your property; mosquitoes can breed in any puddle that lasts more than 4 days.
- Thoroughly clean watering troughs on a monthly basis.

What should I do if I suspect my horse is infected with WNV?

WNV is only one of many possible causes of nervous system disease in horses. If your horse has any of the signs associated with WNV infection, you should contact your veterinarian immediately. The Massachusetts Department of Public Health (MDPH) will test specimens from horses with signs suggestive of WNV disease. Veterinarians that suspect WNV disease in horses should contact MDPH at (617) 983-6800 and the Massachusetts Department of Food and Agriculture at (617) 626-1741.

What is the risk that WNV will affect horses, birds, or people in Massachusetts this season?

On July 26, 2000, a bird infected with WNV was found in Boston. Although we can not predict how severely WNV might affect people, horses, and birds based on this finding, it is possible that WNV could

seriously affect people, birds, and horses this summer and fall. MDPH will be posting weekly updates on the results of testing for WNV on its web site at <http://www.state.ma.us/dph/bls/eesum00.htm>.