

Department of Agriculture and Markets

Fact Sheet

Eastern Equine Encephalitis (EEE)

Eastern equine encephalomyelitis (EEE) is a mosquito-borne viral disease of all equine species such as horses, donkeys, and zebras. After infection, equines may suddenly die or show progressive central nervous system disorders.

Humans can also contract this disease. Healthy adults who become infected by the virus may experience flu-like symptoms such as high fevers and headaches. The young, the elderly, and people with weakened immune systems can become severely ill or die from this disease. Because outbreaks of EEE are infrequent, the disease has a significant economic and social impact once a specific area has been identified. When the disease appears in an area for the first time, there is a loss of horses and/or poultry. The area may also experience an increase in human morbidity and mortality.

Most equine cases of EEE in NYS occur between mid-August and mid-September, although the earliest onset reported was July 14th and the latest October 21st. Veterinarians should consider recommending their clients vaccinate their horses against equine encephalitis viruses every 6 months, i.e. go to twice a year vaccinations.

Clinical Signs: Equines infected with EEE may show one or more of the following signs:

- Fever, depression, loss of appetite, weakness, blindness, excitability, abnormal sensitivity to light and sound, and irritability and aggressiveness towards handlers.
- Central nervous system disorders (lack of coordination, chewing movements, head pressing, “sawhorse” stance, circling, paddling motion of the limbs, and convulsions)
- In some cases, horses infected with EEE may show no clinical signs before dying.

Confusion with Other Diseases: The clinical signs of EEE can easily be confused with those of other diseases, mostly diseases that can affect the central nervous system such as: Venezuelan equine encephalitis, Western equine encephalitis, West Nile equine encephalitis, African horse sickness, rabies, tetanus, and bacterial meningitis. EEE might also be mistaken for poisoning. A definitive diagnosis can be made by isolating the virus in a laboratory or by testing blood for the presence of antibodies to the virus.



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How it Spreads: This virus is primarily transmitted by mosquitoes that bite an infected animal and then bite and feed on another animal or human. How fast the disease spreads depends on the density of mosquito populations.

Control Measures: Continual vigilance and conscientious immunization programs will always be necessary to combat EEE. Monovalent, bivalent, or trivalent horse vaccines containing EEE are available. Horse owners should choose such vaccines depending on the prevalence or likely occurrence of the disease.

For more information, call (518) 457-3502 or email the Division of Animal Industry at: dai@agriculture.ny.gov

