

Equine Encephalitis

*Eastern Equine Encephalitis, Western Equine Encephalitis,
Venezuelan Equine Encephalitis*

What is equine encephalitis and what causes it?

The equine encephalitis viruses are mosquito transmitted diseases that can cause severe inflammation of the brain (encephalitis) in horses and humans. As the names suggest, Eastern equine encephalitis (EEE) most commonly occurs in the Eastern United States and Canada. Western equine encephalitis (WEE) has been isolated from Argentina to Western Canada and in U.S. states west of the Mississippi River. Venezuelan equine encephalitis (VEE) is primarily found in Central and South America, although it has been reported in Mexico and the U.S.

What animals can get EEE, WEE, or VEE?

These viruses primarily cause disease in equine species (e.g., horses, mules, donkeys, zebras), but a number of other animals such as pigs, llamas, bats, reptiles, amphibians, and rodents can also be infected. Birds are reservoirs for the virus, often being infected without signs of disease. Some birds (e.g., pheasants, emus, whooping cranes, partridges) can have illness or death once infected with EEE, WEE, or VEE.

How can my animal get EEE, WEE, or VEE?

These viruses are spread through the bite of an infected mosquito.

How does EEE, WEE, or VEE affect my animal?

Viral encephalitis viruses affect the nervous system, so affected animals will have fever, depression and changes in behavior. Signs of infection may also include impaired vision, muscle twitches, circling or

head pressing behaviors, the inability to swallow, paralysis and convulsions. Horses infected with EEE often do not survive. Survival rates of horses infected with WEE is 70-80%. For VEE, death rates are variable but can be as high as 90%.

Can I get EEE, WEE, or VEE?

Yes. People can be infected from the bite of a mosquito carrying the virus. Disease will vary depending on the specific virus involved. Signs include the sudden onset of fever, chills, body and joint aches. Infection can develop into severe encephalitis, resulting in headache, disorientation, tremors, seizures and paralysis. Permanent brain damage, coma and death may also occur in some cases. VEE infection can also include coughing, sore throat, nausea, vomiting and diarrhea.

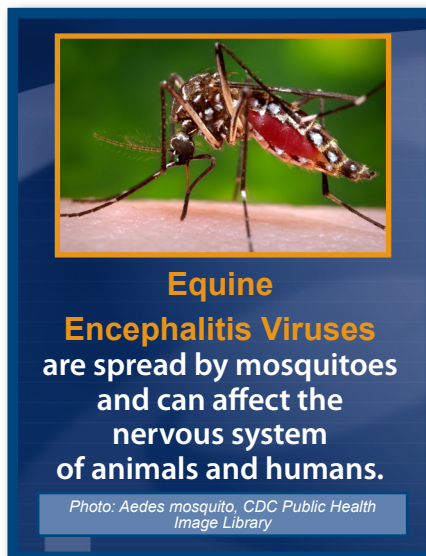
Who should I contact, if I suspect EEE, WEE, or VEE?

In Animals –

Contact your veterinarian.

In Humans –

Contact your physician.



How can I protect my animal from equine encephalitis viruses?

Vaccines for EEE, WEE, and VEE are available for horses. Measures to control mosquito populations and minimize mosquito exposure will decrease chances of infection.

How can I protect myself from equine encephalitis viruses?

You can reduce the chances of becoming infected with EEE, WEE, and VEE by taking measures to decrease mosquito exposure and prevent mosquito bites such as using mosquito repellent (that contains DEET) and avoiding outdoor activities when mosquitoes are most active (dusk and dawn).

For More Information

CFSPH Technical Fact Sheets. Equine Encephalomyelitis at <http://www.cfsph.iastate.edu/DiseaseInfo/>

CDC website. Eastern Equine Encephalitis at <http://www.cdc.gov/ncidod/dvbid/arbor/eefact.htm>

CDC website. Western Equine Encephalitis at <http://www.cdc.gov/ncidod/dvbid/arbor/weefact.htm>

USDA-APHIS website. Venezuelan Equine Encephalitis at http://www.aphis.usda.gov/publications/animal_health/content/printable_version/fs_ahvee.pdf

USDA-APHIS website. Eastern Equine Encephalitis at http://www.aphis.usda.gov/publications/animal_health/content/printable_version/fs_eastern_equine_enceph.pdf