Eastern Equine Encephalitis Virus



What You Need to Know

What is Eastern Equine Encephalitis Virus (EEEV)?

Eastern Equine Encephalitis Virus (EEEV) is a virus that can cause swelling of the brain (encephalitis). It is a mosquito-borne disease, meaning that it is spread by the bite of an infected mosquito.

How is EEEV spread?

Mosquitoes become infected with EEEV by biting birds that have the virus. EEEV can be spread to some mammals, including humans and horses, by the bite of an infected mosquito. An infected human or horse cannot spread the virus to others.

Is EEEV in Michigan?

EEEV has been reported in animals and people throughout the state. EEEV is most commonly found in swamp and bog habitats where human activity is limited, making human cases of EEEV rare in Michigan. The risk of getting EEEV is highest from late spring through early fall.

What is the treatment for EEEV?

There is no specific treatment or medication for this infection. Patients with suspected EEEV should contact a preferred healthcare provider immediately for evaluation, testing, and supportive treatment.

What are the symptoms of EEEV?

Most people who become infected with EEEV do not develop any symptoms. Symptoms of EEEV typically occur 4 – 10 days after the mosquito bite and can include:

- Chills
- Fever
- Feeling ill
- Joint pain
- Muscle pain

Severe cases of EEEV can result in Eastern Equine Encephalitis (EEE). Symptoms of EEE include:

- Sudden onset of headache
- High fever
- Chills
- Vomiting
- Irritability
- Restlessness
- Drowsiness
- Anorexia
- Diarrhea
- Cyanosis (bluish coloring of the skin)

The illness may then progress into disorientation, seizures, and coma. Approximately 30% of people with EEE die, and many survivors have ongoing neurologic problems.

Can EEEV be prevented?

The best way to protect yourself is to prevent mosquitoes from biting you.

- Use Environmental Protection Agency (EPA)-registered insect repellant. All EPA-registered insect repellants are evaluated for safety and effectiveness, and will contain DEET, picaridin, IR3535, Oil of Lemon Eucalyptus or para-menthane-diol as the active ingredient. Repellents containing a higher percentage of the active ingredient typically provide longer-lasting protection. Always follow the product label instructions.
 - Be careful using repellent on the hands of children as it may irritate the eyes and mouth.
- Get rid of mosquito breeding sites by removing standing water around your home:
 - Turn over any type of container that can collect water. Once a week, empty out items that hold water such as tires, buckets, planters, toys, pools, birdbaths, pet bowls, flowerpots, and trash containers.
 - Clean clogged roof gutters, particularly if leaves tend to plug up the drains.
 - Treat standing water that cannot be eliminated, such as retention ponds or drainage ditches, with a mosquito larvicide. Mosquito larvicide is easy to use and can be purchased at most home improvement stores.
- Wear protective clothing such as long-sleeved shirts and pants.
- Limit outdoor activity from dusk to dawn when mosquitoes are most active.
- Maintain window and door screens to keep mosquitoes out of buildings. Do not prop open doors.
- Vaccines are available for horses that will protect them from EEEV. Contact your veterinarian for information regarding vaccinations.







The Oakland County Health Division will not deny participation in its programs based on race, sex, religion, national origin, age or disability. State and federal eligibility requirements apply for certain programs.

I:\Health\Admin\Materials Center\CHPIS_Fact_Sheets\fs_eastern_equine_encephalitis.doc Revised 08/27/19