



Jackson County Health Department

Eastern Equine Encephalitis (EEE)



What is Eastern Equine Encephalitis (EEE)?

Eastern Equine Encephalitis, or EEE, is a rare, but serious disease caused by a virus that is transmitted to humans, horses and some bird species through mosquito bites. This form of encephalitis occurs mainly along the Eastern seaboard, in the Gulf states, and in the Great Lakes Region.

What is the EEE virus?

The EEE virus is one of many viruses in the arbovirus family, which is shorthand for arthropod-borne virus. The most common arthropods for transmitting viruses that cause disease are blood-sucking insects, especially mosquitoes. Although rare, EEE frequently causes severe symptoms. Approximately 30% of people who become ill with EEE will die, and those who survive often have life long neurological problems. The virus causes an infection that results in swelling of the brain. The elderly and very young are most susceptible to the disease.

How is EEE spread?

The virus that causes EEE lives almost exclusively in the bloodstream of infected birds, and in the mosquitoes that bite those birds. The mosquitoes that bite birds greatly prefer birds over horses or people. On rare occasions an infected bird will be bitten by a mosquito that bites both birds and people and other animals, such as horses. In that rare situation the virus can infect a person. The risk of getting EEE, although small, rises during July through September. The adult female mosquitoes that carry the EEE virus are killed by frost in the fall, but the virus can survive or be carried over the winter in birds.

What is the treatment for EEE?

There is no specific treatment. Since this disease is caused by a virus, antibiotics are not effective. Medical care is intensively supportive. EEE cannot be passed directly from person to person.

How can EEE be prevented?

There is no human vaccine available. There is an EEE vaccine available for horses which should be given every spring. The best way to protect

yourself is to avoid mosquito bites as much as possible, by:

- Using repellents approved by the EPA
- Follow the label instructions carefully. Do not use repellents on children younger than two years of age. Repellants containing less than 30% DEET should be used on children 2-6 years of age.
- Limiting outdoor activity in the early morning and evening, when mosquitoes are most active.
- Maintaining window and door screens to keep mosquitoes out.
- Reducing mosquito populations; eliminate all standing water that collects in birdbaths, boats, buckets, tires, unused pools, roof gutters, and other containers.
- Avoiding shaded areas where mosquitoes may be resting.
- Wearing protective clothing such as long-sleeved shirts and pants.


Symptoms of Eastern Equine Encephalitis:

- Abrupt onset of fever
- Headache
- Body aches
- Stiff neck
- Disorientation
- Change in level of consciousness
- Coma
- Tremors
- Paralysis
- Death

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*CDC Public Information 
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