



Indiana State
Department of Health
Epidemiology Resource Center

EASTERN EQUINE ENCEPHALITIS VIRUS QUICK FACTS

Eastern equine encephalitis virus (EEEV) is an arthropod-borne virus (arbovirus) that is primarily transmitted in Indiana by mosquitoes in the genus *Aedes*, *Coquillettidia*, and *Culex*. People infected with EEEV can develop severe inflammation in the brain. Only a few cases of EEEV disease are reported in the United States each year. Most occur in eastern or Gulf Coast states. Please visit the ISDH Eastern equine encephalitis virus page for more information (<https://www.in.gov/isdh/28258.htm>).

TRANSMISSION

EEEV can be transmitted in Indiana by mosquitoes in the genus *Aedes*, *Coquillettidia*, and *Culex*. These mosquitoes become infected when they feed on infected wild birds. Infected mosquitoes can then spread EEEV to people, horses, and other mammals. Once infected, people, and other mammals are “dead-end hosts,” which means that they do not pass the virus on to other biting mosquitoes.

SIGNS AND SYMPTOMS

Signs and symptoms of EEEV disease usually appear within 4 – 10 days of a bite from an infected mosquito. EEEV infection can result in one of two types of illness, systemic or encephalitic (involving swelling of the brain). It is possible that some people who become infected with EEEV may not develop any symptoms.

Symptoms of systemic EEEV infection appear abruptly and include chills, fever, body aches, and joint pain. People with systemic EEEV infection are usually sick for 1 to 2 weeks and recover completely if the infection does not spread to the central nervous system. In some older children and adults, systemic EEEV infection can progress to encephalitis (inflammation of the brain). In infants, encephalitis can happen abruptly.

Approximately one third of all cases of encephalitis due to EEEV are fatal. Many people who recover will experience severe ongoing complications.

DIAGNOSIS

Diagnosis of EEEV disease is based upon the patient’s signs and symptoms and appropriate laboratory testing. If you think that you have EEEV disease, contact your health care provider.

TREATMENT



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No specific medication is available to treat EEEV disease. People with severe illness usually require hospitalization, supportive care, and/or rehabilitation.

PREVENTION

The best way to prevent EEEV disease is to avoid mosquito bites. Please see our mosquito bite prevention page (<https://www.in.gov/isdh/28007.htm>) for more information.

For more information about EEEV disease, please visit the CDC Eastern equine encephalitis virus website (<https://www.cdc.gov/easternequineencephalitis/index.html>).

STATISTICS

While equine cases are occasionally detected, human EEEV disease is rare in Indiana. No cases were reported from 2013-2017. For more information, please visit our annual report pages (<https://www.in.gov/isdh/20667.htm>).

National statistics for EEEV disease can be found at the CDC Statistics and Maps webpage (<https://www.cdc.gov/easternequineencephalitis/tech/epi.html>).

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