

Eastern Equine Encephalitis (EEE) Frequently Asked Questions

What is eastern equine encephalitis?

Eastern equine encephalitis (EEE) is encephalitis (inflammation or swelling of the brain) caused by the eastern equine encephalitis virus. The EEE virus is transmitted to humans from the bites of infected mosquitoes. This illness is rare in humans because the EEE virus normally only circulates between birds and mosquitoes in swampy areas. However, mosquitoes that bite humans sometimes become infected, and can pass the EEE virus to humans. Most cases of EEE in humans occur in the late summer and fall. Eastern equine encephalitis is usually found in the eastern United States, including Georgia.

What are the symptoms of EEE?

Most people who are bitten by a mosquito carrying the EEE virus will not become sick. One out of every 20 people infected will show symptoms. Symptoms begin approximately 3 to 10 days after a mosquito bite. Persons who show symptoms experience sudden onset of fever, muscle pains, and headache; many of these persons will also experience more severe illness that may include seizures and coma.

If a person develops encephalitis, how serious is his/her condition?

EEE is one of the most serious types of viral encephalitis. Death occurs in approximately 50% of persons who develop encephalitis. As many as 70% of children who recover from eastern equine encephalitis are left with mild to severe disabilities.

Who is most at risk for becoming ill?

Young children and the elderly are at highest risk for becoming ill. Persons who work or spend significant amounts of time outdoors or in swampy areas are also at risk.

What treatment is there for EEE?

There is no specific treatment to fight the EEE virus. Doctors can, however, treat the symptoms of these illnesses, such as swelling of the brain, seizures, and breathing complications.

A mosquito has bitten me. Should I contact my doctor?

Most mosquito bites will not cause illness. It is not necessary to contact your doctor or the health department after a bite—most mosquitoes **do not** carry disease. If you live in an area where cases of eastern equine encephalitis have been found, most mosquitoes will not carry



the EEE virus, and your chances of being bitten by an infected mosquito are very low. In addition, if an infected mosquito bites you, your chances of becoming seriously ill are low.

If you begin to feel ill after a mosquito bite, especially if you develop a high fever, rash, confusion, muscle weakness, or seizures, you should contact your doctor immediately.

Remember that in most cases, mosquito bites do not transmit disease—if you do not experience any symptoms, you **do not** need to call a medical professional.

How will I know when EEE has been detected in my community?

The Georgia Department of Public Health (GDPH) watches for cases of eastern equine encephalitis in Georgia through testing birds, mosquitoes, horses, humans, and other animals that may be infected. When cases of EEE are found, GDPH and local health departments work to remind residents of ways to protect themselves from mosquito bites.

How can I protect myself from being infected with EEE?

The best way to prevent infections with Eastern Equine Encephalitis virus and other mosquito-borne diseases is to avoid getting mosquito bites. Other viruses that are transmitted by mosquitoes, including those that cause St. Louis Encephalitis (SLE), LaCrosse Encephalitis (LAC), and West Nile virus (WNV), are also found in Georgia. There are no human vaccines for these viruses. You can take the following precautions to protect yourself and your family against them:

- Minimize time spent outdoors when mosquitoes are most active. The mosquitoes that are more likely to carry EEE are usually active at dusk and dawn. However, some mosquitoes that bite during the day have also been known to carry EEE.
- Apply insect repellent on uncovered skin and under the ends of sleeves and pant legs. ALWAYS FOLLOW the INSTRUCTIONS on the LABEL of the repellent.
- The most effective repellents are those that contain the chemical DEET (N,N-diethylmetatoluamide). The concentration of DEET varies among repellents. Repellents with DEET concentrations of 30-35% are quite effective, and the effect should last about 4 hours. Lower concentrations are recommended for use on children (no more than 10% DEET). Repellents with DEET should be used sparingly on children from 2 to 6 years old. For children 2 years old and younger, contact your primary health care provider before applying



repellent. The American Academy of Pediatrics states that DEET-based repellents can be used on children as young as 2 months.

- Consider remaining indoors at times when numerous mosquitoes are biting. Other substances found to be as good as DEET for repelling mosquitoes are picaridin and oil of lemon eucalyptus (<http://www.cdc.gov/ncidod/dvbid/westnile/RepellentUpdates.htm>).
- Make sure your home, porch, and patio have tight-fitting screens that keep mosquitoes out. Consider using lights that do not attract insects.
- All mosquitoes need standing water for the first stages of development. Eliminate stagnant water around your home, where mosquitoes can lay eggs, by disposing of old tin cans, jars, tires, plant pots, and any other container that can hold water. In the spring, inspect rain gutters and downspouts and remove any leaves and other debris. Stack wheelbarrows, tubs, buckets, barrels, boats or canoes, etc. upside down so that water cannot accumulate in them. Empty stagnant birdbaths, lily ponds, small wading pools, etc. at least once a week. Properly maintain backyard swimming pools to discourage the development of mosquitoes. Cover any pool not in use so rainwater and leaves do not accumulate in it. Be sure the cover does not hold pockets of water. Mosquitoes can breed in as little as ½ inch of water.

Other Resources

- Centers for Disease Control and Prevention (CDC) Eastern Equine Encephalitis Fact Sheet – <http://www.cdc.gov/EasternEquineEncephalitis/index.html>
- Centers for Disease Control and Prevention (CDC) Division of Vector-Borne Diseases -- <http://www.cdc.gov/nceid/dvbd/>

