

# **Eastern Equine Encephalitis (EEE)**

## **Frequently Asked Questions**

Georgia Department of Human Resources, Division of Public Health  
Updated 11/26/2002

### **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.

EEE is *not* transmitted from person to person. People normally get EEE only from the bite of an infected mosquito. However, in 2002, there were a small number of cases of people becoming infected with mosquito-borne viruses from blood transfusions or organ transplants, as well as through breast milk. While the risk of acquiring EEE in one of these ways is only theoretical, people should not donate blood within 14 days of experiencing a fever or other signs of illness. Women who are breastfeeding and develop signs of illness should consult their healthcare provider.

### **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 30% of persons who develop encephalitis. As many as 70% of children who recover from eastern equine encephalitis have 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.

### **How can I protect myself and my family from EEE?**

There is no commercial vaccine available to protect people from the EEE virus. Therefore, Georgia residents should do all they can to protect themselves from mosquito bites. Mosquito repellants provide excellent protection when outdoors. Wearing long sleeves and pants, especially when outside at night or when in swampy and forested areas, will also provide good protection against insects.

It is also important for persons to be aware of areas around their home where mosquitoes can breed. Any containers that can collect water--such as buckets, old tires, flowerpots, or toys--are places where mosquitoes can lay eggs. Swimming pools should have proper treatment and filtration systems. Checking window and door screens for holes helps to keep mosquitoes from entering your home.

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

The Georgia Division of Public Health (GDPH) watches for cases of eastern equine encephalitis in Georgia. When cases of EEE are found, GDPH and local health departments work to remind residents of ways to protect themselves from mosquito bites.

Widespread spraying of chemicals is expensive and is usually not the most effective way to kill mosquitoes. Therefore, it is up to Georgia residents to protect themselves and to prevent mosquito breeding near their homes. Using insect repellants and emptying containers that can collect water are the best and most effective ways to stop mosquitoes from reproducing and spreading disease.

**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.

**Other Resources**

- Centers for Disease Control and Prevention (CDC) Eastern Equine Encephalitis Fact Sheet – <http://www.cdc.gov/ncidod/dvbid/arbor/eeefact.htm>
- Centers for Disease Control and Prevention (CDC) Information on Arboviral Encephalitides -- <http://www.cdc.gov/ncidod/dvbid/arbor/arbdet.htm>