

LaCrosse Encephalitis Frequently Asked Questions

What is LaCrosse Encephalitis?

LaCrosse encephalitis (LAC) is a type of encephalitis (inflammation or swelling of the brain) caused by the LaCrosse virus. The LAC virus is transmitted to humans by mosquitoes. This virus normally only circulates between animals and mosquitoes. Human-biting mosquitoes can become infected, however, and can transmit this disease to people. The mosquito that transmits the LAC virus breeds in tree holes in forested areas and in containers that have collected water. Because of the habitat of the treehole mosquito, most cases of LAC occur in the northern portion of Georgia. The treehole mosquito bites during the day, when people are most likely to be involved in outside activities. Most cases of LaCrosse encephalitis occur in July, August, and September.

What are the symptoms of LAC?

Most people infected with the LAC virus will not get sick. If people do become ill, symptoms usually occur about 3 to 7 days after the mosquito bite. Persons who become ill usually only have *mild* flu-like symptoms such as fever, headache, nausea, and vomiting. In some cases, a person can develop viral meningitis (inflammation or swelling of the protective covering of the brain and spinal cord) or encephalitis with changes in mental status or consciousness, paralysis, seizures, and possibly death.

How serious is illness resulting from LAC virus infection?

Most people with LaCrosse encephalitis will make a full recovery; some persons may experience side effects for several years after they recover. Approximately 1% of cases of LaCrosse encephalitis result in death.

Who is most at risk for LAC illness?

Children under age 15 are at highest risk for developing illness. Other persons who live, work, or spend significant amounts of time in forest areas are also at an increased risk of becoming ill.

What treatments are there for LaCrosse encephalitis?

No treatments exist to fight the LaCrosse 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. Even if you live in an area where cases of LaCrosse encephalitis have been found, most mosquitoes will not carry the LAC virus, and your chances of being bitten by an infected mosquito are very low. In addition, if an infected mosquito bites you, you have an extremely small chance of becoming sick. 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 can I protect myself from being infected with LAC?

The best way to prevent infections with LaCrosse 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), Eastern Equine Encephalitis (EEE), 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 LAC are usually active all day long from dawn to dusk.
- If you go outdoors when mosquitoes are active, cover up by wearing shoes, socks, lightweight long-sleeved shirts, and long pants. 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) LaCrosse Encephalitis Fact Sheet -- <http://www.cdc.gov/lac/>
- Centers for Disease Control and Prevention (CDC) Division of Vector-Borne Diseases -- <http://www.cdc.gov/ncezid/dvbd/>

