

Saint Louis Encephalitis (SLE)

Frequently Asked Questions

Georgia Department of Human Resources, Division of Public Health
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What is Saint Louis encephalitis?

Saint Louis encephalitis (SLE) is a type of viral encephalitis (inflammation or swelling of the brain) caused by the Saint Louis encephalitis virus. The SLE virus is transmitted to humans by mosquitoes. This virus normally only circulates between birds and mosquitoes. Human-biting mosquitoes can become infected, however, and can transmit this disease to people. These mosquitoes tend to live and breed in urban and suburban areas; most human cases are also found in these areas. Because of the life cycle of the mosquitoes that transmit SLE virus, most SLE infections occur in the late summer and in the fall. Saint Louis encephalitis is found throughout the United States, including Georgia.

What are the symptoms of SLE?

Most people *do not* become ill when a mosquito infected with the SLE virus bites them. People who do experience symptoms will start to feel ill approximately 5-15 days after the mosquito bite. Most people who experience symptoms will only suffer from headaches or a mild flu-like illness with muscle aches, weakness, or vomiting. A *small* number of persons may develop encephalitis or aseptic meningitis (inflammation/swelling of the protective covering of the brain and spinal cord), and may experience symptoms such as confusion, coma, and possibly death.

How likely am I to have serious illness resulting from SLE infection?

Less than 1% of persons infected with Saint Louis encephalitis virus will show symptoms. In children less than 10 years old, only 1 child out of 800 will experience symptoms. In young adults, for every 400 people infected with the SLE virus, only 1 will experience symptoms. The elderly are at highest risk for developing illness from the SLE virus; for every 80 elderly individuals infected with SLE virus, 1 person will experience symptoms. In persons over age 60 who do become ill, about 9% of these cases will result in death.

Who is most at risk for contracting SLE?

Because SLE virus is transmitted by the bite of infected mosquitoes, any person is at risk for contracting this virus. However, the elderly and persons with underlying medical conditions are at highest risk of developing serious illness. The immune systems of these persons are not able to fight SLE infection as easily.

What treatments are there for Saint Louis encephalitis?

No treatments exist to fight the virus that causes Saint Louis encephalitis. 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 Saint Louis encephalitis have been found, most mosquitoes will not carry the SLE 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 will I know when SLE has been detected in my community?

The Georgia Division of Public Health (GDPH) watches for cases of Saint Louis encephalitis in Georgia through testing birds, mosquitoes, humans, horses, and other animals that may be infected. When cases of SLE 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 SLE?

The best way to prevent infections with Saint Louis Encephalitis virus and other mosquito-borne diseases is to avoid getting mosquito bites. Other viruses that are transmitted by mosquitoes, including those that cause Eastern Equine Encephalitis (EEE), 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 SLE are usually active at dusk and dawn. However, some mosquitoes that bite during the day have also been known to carry SLE.
- If you go outdoors when mosquitoes are active, cover up by wearing shoes, socks, lightweight long-sleeved shirts, and long pants. Consider using a mosquito repellent that contains DEET (N, N-diethyl-methyl-meta-toluamide) on exposed skin. Use products containing 10% or less DEET for children and no more than 30% for adults. Do NOT use products containing DEET on infants. Carefully read and follow directions on the container and wash treated skin when mosquito exposure has ended. Consider remaining indoors at times when numerous mosquitoes are biting.
- 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) St. Louis Encephalitis Fact Sheet -- http://www.cdc.gov/ncidod/dvbid/sle/Sle_FactSheet.html
- Centers for Disease Control and Prevention (CDC) Information on Arboviral Encephalitides -- <http://www.cdc.gov/ncidod/dvbid/arbor/arbdet.htm>