

La Crosse (LAC) Encephalitis in Pennsylvania

VECTOR MANAGEMENT



What is La Crosse Encephalitis?

LAC is a virus that causes encephalitis or inflammation of the brain and is passed to people from the bite of infective mosquitoes. It was first found in La Crosse, Wisconsin in 1963. In the U.S., 50 to 150 people are affected annually, with most cases occurring in the upper Midwestern, mid-Atlantic, and southeastern states. There has only been one case reported of LAC virus infection in the Commonwealth. LAC virus was detected in mosquitoes for the first time in Pennsylvania in 2023.

How is LAC Virus Transmitted?

LAC virus is transmitted to people from the bite of an infective Eastern treehole (*Aedes triseriatus*) or Asian tiger (*Aedes albopictus*) mosquito. The virus is found in small mammals such as chipmunks or squirrels where it amplifies until it can be passed along to mosquitoes. Mosquitoes that become infected can then pass LAC virus to people. Unlike most other mosquito-borne diseases, La Crosse can be passed from female mosquitoes to offspring. Therefore, mosquitoes don't always have to bite an infective small mammal to pick up the virus. Humans, however, are unable to amplify the virus at such a rate to be able to pass it along to other mosquitoes or people. For this reason, we are called "dead end hosts."

What are LAC Virus Symptoms?

Most people infected with LAC virus do not have symptoms. For people with symptoms, the time from infection to feeling sick ranges from 5 to 15 days. Initial symptoms are mild and flu-like but can develop to severe with tremors, coma, paralysis, and encephalitis.

Severe disease occurs most frequently in children under 16 years of age. Recovery time from severe illness varies, and some effects to the central nervous system can persist over time. These can include recurrent seizures and cognitive or behavioral impairments. Most patients do recover, but death (<1%) does occur.

How is LAC Virus Diagnosed and Treated?

See your doctor if you think you or a family member has LAC virus disease. Your doctor can perform a blood test which involves looking for LAC virus antibodies.

There is no cure or vaccine, nor do antibiotics have any effect on LAC virus. Treatments such as rest, fluid intake, and over-the-counter pain medications are used to treat symptoms. Patients with severe symptoms can be hospitalized to receive support for breathing, hydration, or reducing swelling in the brain.

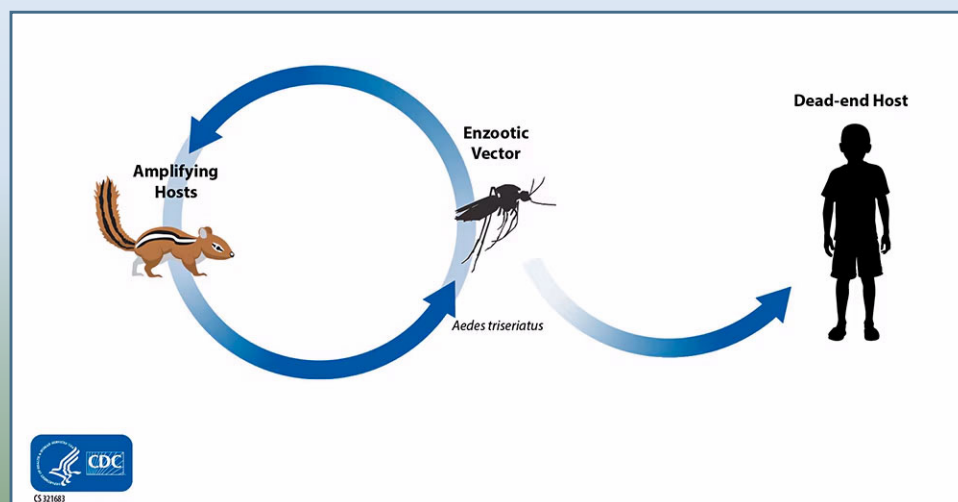


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How Can I Protect Myself?

Since mosquitoes are the ones who pass this disease to people, the most effective measure of protection is to reduce your risk of getting bitten. The best way to not get bitten is to ensure that mosquitoes are not able to breed on your property in the first place. This involves eliminating standing or stagnant water in areas such as gutters, flower-pots, pool covers, bird baths, etc. Eastern treehole mosquitoes typically breed in treeholes, but they are also known to breed in artificial containers such as tires. The Asian tiger mosquito only breeds in artificial containers.

Wear long sleeves and tuck pants into socks and shirts into pants when outdoors. The species of mosquitoes that transmit LAC virus are most active during the day and twilight hours. The risk of contracting LAC virus is highest from June through October.

What Else is Being Done for Protection Against Mosquitoes?

The Pennsylvania Department of Environmental Protection and participating counties implement various tools and strategies to control mosquito populations. This reduces the transmission of mosquito-borne disease and allows the public to enjoy outdoor spaces. Our integrated pest management plan (IPM) incorporates mosquito surveillance, public outreach and education, source reduction, and larval and adult control.

Please visit our website at www.dep.pa.gov/westnile.

There, you can learn more about mosquito control in your area and see what efforts are made to combat other mosquito-borne diseases such as West Nile Virus. You can also find your county contact should you have any mosquito concerns.



People who spend time outdoors in mosquito-infested areas can use insect repellents containing DEET, picaridin, or oil of lemon eucalyptus.



www.dep.pa.gov/westnile

SEAL ALL
WATER DEPOSITS



FIX
WATER LEAKS



PROTECT AND
CLEAN POOLS
AND PONDS



CLEAN BIRDBATH
ONCE A WEEK



CLEAN RAIN GUTTER



INSTALL SCREENS
ON WINDOWS
AND DOORS



DRAIN STANDING
WATER IN BUCKETS,
TIRES, FLOWER POTS



KEEP GRASS
SHORT



PROTECT YOUR HOME
AGAINST MOSQUITOES

