St. Louis Encephalitis Virus Fact Sheet

What is St. Louis encephalitis virus (SLEV)?

SLEV is a virus spread by mosquitoes that can make people sick. Most people infected with SLEV don’t have symptoms, but in rare cases, SLEV can lead to swelling or inflammation of the brain (encephalitis) and lead to death. The symptoms and transmission of SLEV are similar to West Nile virus (WNV), but SLEV is less common in California than WNV.

How do people get SLEV?

People get SLEV from the bite of an infected Culex mosquito. A mosquito becomes infected with SLEV after biting a bird that is infected with the virus. SLEV is not spread from person to person.

How common is SLEV?

Human cases of SLEV are not common in California. Fewer than 10 human cases have been reported per year in California since 1990. Mosquitoes infected with SLEV are more commonly found in the Central Valley and some areas of southern California. However, there is concern that SLEV may be spreading. For information about SLEV activity in California, please visit the CDPH Vector-Borne Disease Section SLEV webpage (http://westnile.ca.gov/sle.php).

Who is at risk of being infected with SLEV?

People who spend time outdoors when mosquitoes are active are more likely to get bitten by an infected mosquito and get SLEV. The mosquitoes that spread SLEV are most active during dawn and dusk. Anyone can be infected with SLEV, but not everyone gets sick if they are infected. Older adults are the most likely to get very sick if they are infected.

What are the symptoms of SLEV?

Most people that are bitten by a mosquito that is infected with SLEV will have no symptoms and most likely won’t know they have been infected with SLEV.

Some people may develop mild symptoms, including fever, headache, or nausea up to two weeks after being bitten.

Rarely, SLEV can cause more serious symptoms that affect the brain or central nervous system. These symptoms include stiff neck, confusion, and dizziness. Paralysis, coma, and sometimes death can result. Older adults, people with diabetes, and people with weakened immune systems are more likely to get very sick from SLEV.

How is SLEV diagnosed?

Infection with SLEV is diagnosed through a blood or spinal fluid test, which a healthcare provider can order to determine if someone has SLEV or not.
How is SLEV treated?
There is no specific treatment for SLEV. Milder symptoms, such as fever, headache, and nausea, usually get better on their own. Severe symptoms of SLEV can be treated by supportive care in a hospital, which may include respiratory support, IV fluids, and prevention of other infections.

How can I help reduce my risk of getting SLEV?
There is no vaccine for SLEV. To help prevent SLEV and other mosquito-borne viruses, such as WNV, be sure to:

- Apply EPA-registered insect repellent containing DEET, picaridin, IR3535, or oil of lemon eucalyptus on clothes and exposed skin before spending time outside. EPA-registered repellent is safe to use as directed and works to keep mosquitoes from biting you.
- Wear long sleeves and pants while outside when mosquitoes are active.
- Make sure doors and windows have tight-fitting screens to keep mosquitoes out of your home. If screens have tears or holes, fix or replace the screens to keep mosquitoes out.
- Mosquitoes that spread SLEV lay their eggs on standing water. You can prevent mosquitoes from breeding around your home by finding and removing sources of standing water in containers such as flower pots, tires, buckets, bird baths, and children’s toys.
- Contact your local vector control agency if you notice more mosquitoes around your home than usual.

What is the California Department of Public Health (CDPH) doing about SLEV in California?
The CDPH works with local vector control agencies to track SLEV in California. When SLEV is found in mosquitoes or sentinel chickens (which are used to track viruses spread by mosquitoes), this alerts local vector control agencies that SLEV is spreading in an area. In response to this, the local agencies will increase their mosquito monitoring and control to help prevent the spread of SLEV to people.

Where can I get more information about SLEV?
- CDPH SLEV webpage (https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/SLE.aspx)
- U.S. Centers for Disease Control and Prevention St. Louis Encephalitis webpage (http://www.cdc.gov/sle/index.html)

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