

Jamestown Canyon Virus Disease

What is Jamestown Canyon virus disease?

Jamestown Canyon virus disease is an illness that is transmitted to people through the bite of an infected mosquito. The virus is a bunyavirus within the California serogroup and is closely related to La Crosse encephalitis virus. The virus was first identified in 1961 in mosquitoes from Jamestown Canyon, Colorado.

How serious is Jamestown Canyon virus disease?

The spectrum of illness is still being described for this rare, emerging disease. Symptoms may include a sudden onset of flu-like illness with fever. Severe cases may develop neurologic symptoms such as meningitis (inflammation of the membranes surrounding the brain) or meningoencephalitis (inflammation of the brain and surrounding tissues). There is no treatment for the illness other than supportive care. Hospitalization may be necessary for severe cases.

Who is at risk for Jamestown Canyon virus disease?

Illness can occur in any age group. In Minnesota, cases of Jamestown Canyon virus disease have been widely distributed throughout the state. People who work outside or participate in outdoor activities are at greater risk because of exposure to mosquitoes.

What kind of mosquito spreads Jamestown Canyon virus disease?

In Minnesota, we have approximately 50 species of mosquitoes but not all mosquitoes feed on people. Several species of mosquitoes are able to spread Jamestown Canyon virus, including many that commonly bite people. Snowmelt *Aedes* species are some mosquitoes that may spread the virus if they are infected. These mosquitoes emerge in the spring from small snowmelt pools, as are often found in wooded areas. Since a variety of mosquito species may spread the virus, Jamestown Canyon virus disease can occur anytime from spring through fall.

What can people do to prevent Jamestown Canyon virus disease?

The best way to prevent Jamestown Canyon virus disease is to protect yourself and your family from mosquito bites:

- Use repellents containing DEET according to label directions – up to 30% DEET is safe and effective for adults and children over two months of age. Other effective repellents include picaridin, IR3535, and oil of lemon eucalyptus. Only use products that are registered by the Environmental Protection Agency.
- Pre-treat clothing and gear with permethrin-based products.
- Wear loose-fitting, long sleeved shirts and pants.

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- Keep mosquitoes out of your home by maintaining screens on windows and doors.

To protect yourself and your family from Jamestown Canyon virus disease and other mosquito-borne illnesses in Minnesota:

- Empty standing water from around your home at least once a week to prevent mosquitoes from using containers as breeding sites.
 - Buckets, flower pots/saucers, pet bowls, birdbaths, kiddie pools, etc.
- Check gutters and remove leaves frequently to ensure proper drainage.
- Tighten up loose tarps/covers so water does not pool.
- Tightly cover or screen water storage containers (e.g., rain barrels).
- Fill water-holding tree holes with dirt or sand.
- Recycle old tires or store them where they can't collect rainwater.

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