

# THIS IS AN OFFICIAL NH DHHS HEALTH ALERT

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## Mosquito-Borne Diseases Update, 2022

### Key Points and Recommendations:

- Risk for West Nile virus (WNV), Eastern Equine Encephalitis virus (EEEV), and Jamestown Canyon virus (JCV) infection is present in NH and will increase into the summer and fall.
- Counsel patients about how to [prevent mosquito bites](#).
- Consider testing for mosquito- and certain tick-borne (i.e., Powassan) infections in patients presenting with signs/symptoms of meningitis or encephalitis.
- Report all suspect or confirmed mosquito-borne infections to the NH Division of Public Health Services (DPHS) within 24 hours by calling 603-271-4496 (after hours 603-271-5300 and ask for the public health nurse on call).

### Background

Mosquito-borne diseases transmitted in NH include West Nile virus (WNV), Eastern Equine Encephalitis virus (EEEV), and Jamestown Canyon virus (JCV). All three diseases can cause a range of clinical symptoms including asymptomatic infection, non-specific febrile illness, and severe neurological disease including meningitis and encephalitis.

The greatest risk in NH for human mosquito-borne infection due to WNV and EEEV is between July and October. The risk for JCV is earlier and likely begins as soon as the snow melts and mosquitoes are present. Risk for these infections increases through the summer and into fall until a hard frosts kills mosquitos.

NH DPHS supports towns that trap mosquitos to have them tested at the NH Public Health Laboratories (PHL) for WNV and EEEV. Mosquitos from certain locations may also be tested for JCV during the 2022 season, as resources allow. Mosquito trapping and testing occurs from July through mid-October, primarily in the southeastern part of the State, to help inform communities about potential risk. Even in communities where there is no mosquito trapping/testing, people remain at risk for WNV, EEEV, and JCV.

A weekly report of NH's mosquito, animal, and human testing information, alongside a map of municipalities conducting mosquito surveillance activities can be found [online](#).

### Epidemiology

WNV was first identified in NH mosquitoes in 2000 with the first human case occurring in 2003. Since 2003, there have been 8 cases of WNV identified in humans, most recently in 2021.

EEEV was first identified in NH mosquitoes in 2004 with the first human case also occurring in 2004. Since 2004 there have been 15 cases of EEEV identified in humans in NH; the last human infection with EEEV was detected in 2014 (three cases during that year). EEEV is irregularly detected in mosquito populations.

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JCV was first identified in a NH resident in 2013. Since then, NH has identified a total of 19 cases, including five in 2021. JCV has emerged as the primary mosquito-borne infection in NH over the last several years, and has been detected in NH residents every year between 2019 and 2021.

For updated surveillance information, monitor the [NH DHHS's arboviral risk map](#) and CDC's [ArboNET Disease Maps](#).

### Testing

Testing for EEEV and WNV is available through clinical reference laboratories. The NH Public Health Laboratories (PHL) can also help test for WNV, EEEV, and JCV. To request testing through the NH PHL, clinicians must submit a [Laboratory Test Requisition](#) form with the appropriate specimen; please include symptom onset date to avoid delays.

See [How to Collect and Submit Clinical Specimens for Arboviral Testing](#).

### Reporting

Clinicians and laboratories should report within 24 hours any persons suspected of having a mosquito-borne disease, especially patients presenting with encephalitis or meningitis from April through November who meet the criteria below and do not have an alternate diagnosis:

- Fever  $\geq$  38.0 C or 100 F, and
- CNS involvement including altered mental status (altered level of consciousness, confusion, agitation, lethargy) and/or other evidence of cortical involvement (e.g., focal neurologic findings, seizures), and
- Abnormal CSF profile suggesting a viral etiology (e.g., negative bacterial stain and culture, pleocytosis with predominance of lymphocytes, elevated protein, normal glucose).

After the initial phone report, a [Case Report Form](#) should be faxed to 603-696-3017 *and* a copy should also be submitted with the laboratory specimen(s) to the NH Public Health Laboratories (PHL). NH DPHS staff members are available 24/7 to assist and to support testing.

### Additional Information:

- CDC's [West Nile Virus](#) website
- CDC's [Eastern Equine Encephalitis](#) website
- CDC's [Jamestown Canyon Virus](#) website
- NH DPHS [Mosquito Surveillance and Control](#) website
- NH DPHS [Mosquito-Borne Illnesses](#) website

- For any questions regarding this notification, please call the NH DHHS, DPHS, Bureau of Infectious Disease Control at (603) 271-4496 during business hours (8:00 a.m. – 4:30 p.m.).
- If you are calling after hours or on the weekend, please call the New Hampshire Hospital switchboard at (603) 271-5300 and request the Public Health Professional on-call.
- To change your contact information in the NH Health Alert Network, please send an email to [DHHS.Health.Alert@dhhs.nh.gov](mailto:DHHS.Health.Alert@dhhs.nh.gov).

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From: Benjamin Chan, MD, MPH; NH State Epidemiologist  
Originating Agency: NH Department of Health and Human Services, Division of Public Health Services