ENVIRONMENTAL PUBLIC HEALTH · ZOONOTIC DISEASE PROGRAM

Mosquitoes & West Nile Virus



About West Nile Virus (WNV)

West Nile virus is a mosquito-carried virus that can cause serious illness. West Nile virus is spread to humans and animals through the bite of an infected mosquito. Mosquitoes spread the virus when they feed on an infected bird, and then bite people, animals, or other birds.

Mosquito season lasts from spring through fall. Many of the human cases of WNV acquired in our area have occurred towards the end of summer and into fall. Therefore, it is important to protect yourself against mosquito bites through the entire season.

Symptoms

Most people who are infected with WNV will not become ill. Two to fourteen days after being bitten by an infected mosquito, some people may develop flu-like symptoms such as fever, headache, and body aches. Occasionally, they may have swollen glands or a rash. These symptoms can last for a few days or up to several weeks.

In rare cases, infection can result in a severe and sometimes fatal illness. Serious infection is marked by high fever, severe headache, stiff neck, muscle weakness, disorientation, and convulsions. Some symptoms may persist for years.

If you begin to experience serious symptoms of infection 2-14 days after a mosquito bite, see your doctor. With serious West Nile illness, intensive medical care may be required, such as hospitalization, intravenous fluids, and prevention of secondary infections such as pneumonia.

There is currently no vaccine available for humans

Anyone, at any age, can contract WNV infection. The risk of severe infection is higher among people who are 60 or older.

WNV is not spread by person-to-person contact

(for example, you won't get it by touching or kissing an infected person). A very small number of people have been infected with WNV through blood transfusions and organ transplants, and through transmission from mother to baby during pregnancy or breastfeeding.

There is no evidence that people can get West Nile virus directly from infected birds, dead or alive. However, people should avoid touching any dead bird or animal with their bare hands.

How to Prevent WNV

- Twice a week, drain standing water on your property and routinely empty anything that holds water, including buckets, wading pools, pet bowls, tire swings, bird baths, and toys.
- Keep door and window screens "bug tight." Repair or replace them as needed.
- Wear shoes, socks, long pants and long sleeve shirts when outside, especially at dawn and dusk when mosquitoes are most active.
- Use insect repellents according to directions.

Safe use of insect repellents

Repellents containing the following ingredients are effective against mosquitoes:

- DEET
- IR3535
- Oil of Lemon Eucalyptus (OLE) or para-menthanedial (PMD)
- 2-Undecanone
- Permethrin
- Picaridin (Also known as KBR 3023)

Permethrin is recommended for use on clothing, shoes, bed nets, and camping gear. Permethrin-treated clothing repels and kills ticks and mosquitoes and retains this effect after repeated laundering. Follow directions carefully. Repellents used on children should contain no more than 30% DEET. Insect repellents are not recommended for children younger than two months.

Find the insect repellent that's right for you by using EPA's search tool: epa.qov/insect-repellents-right-you

- Spray your own hands and then rub the product on child's exposed skin, avoiding eyes and mouth. Children should not apply repellent themselves.
- If a child still puts their hands in their mouth, do not apply repellent to hands.
- Consider using mosquito netting over infant carriers, strollers or playpens.
- Always keep repellent out of reach of children.
- If you suspect you or your child is having a reaction to an insect repellent, discontinue use, wash treated skin thoroughly and call the Washington Poison Center 800.222.1222. If you go to a doctor, take the repellent with you.

Reporting Dead Birds for WNV

Birds and horses typically become infected with WNV before humans, so dead corvid birds and sick horses can be an early indicator that there is WNV activity in an area. Previously, to conduct WNV surveillance, Washington State Department of Health's (DOH) Zoonotic Disease Program operated an online dead bird reporting system. The system was intended to help with detection of WNV, and provide a means for the public to help with the surveillance. In addition to providing adequate evidence of where WNV was endemic, DOH determined that surveillance of mosquitoes is a better system for early detection of WNV in the environment. This meant discontinuation of the dead bird system to better focus resources on what benefits public health.

What to do when you find dead birds

To report wild bird die-offs contact the Washington Department of Fish and Wildlife (WDFW) at 1-800-606-3056 or the local office listed on the sidebar. To report domestic flock die-offs, contact the Washington State Department of Agriculture (WSDA) at 1-800-606-3056 or the local office listed on the sidebar.

Please DO NOT bring birds to any health district office unless you are requested to do so!

Always use precautions when handling and disposing of any dead bird or animal

- Wear gloves or use a shovel to put the bird into a plastic bag. Put into another plastic bag and close tightly.
- Place the dead bird into garbage can.
- Wash hands thoroughly with soap and water.

Corvid Birds



Magpie



Crow



Raven



Stellar's Jay

Resources

Spokane Regional Health District

- srhd.org
- West Nile Information Line: 323.2847
- Environmental Public Health: 324.1560, ext. #7
 - Prevention, mosquito habitat reduction, personal protection, and mosquito/dead bird surveillance issues
- Epidemiology, 324.1442
- Human risk of infection or disease information

Washington State Department of Ecology

Best management practices for mosquito control ecy.wa.gov (type "Best Management Practices for Mosquito Control" in the search box) or call 329.3400 to obtain a current copy of this document

Washington Department of Fish & Wildlife

Regional office, 892.1001

Stocking ponds with fish for mosquito control

Washington State Dept. of Agriculture

Pesticide Management Division, 533.2690 Safe & legal use of pesticides

Horse, other animal concerns/vaccinations:

agr.wa.gov (type "West Nile Virus" in the search box). Or consult your local veterinarian.

Additional resources

• DOH toll-free WNV info line 1-866-78VIRUS

Public drainage swales that don't drain in the expected 72-hour time frame

- City of Spokane, 625.7900
- City of Spokane Valley, 921.1000
- Spokane County, 477.3600

Mosquito control district

Currently there are no mosquito control districts in Spokane County.

- For information on forming a district, call the Spokane County Auditor's office at 477.2260, ext. #4 about the petition process.
- doh.wa.gov/wnv

Obtaining a National Pollutant Discharge Elimination System (NPDES) Permit:

Jon Jennings at Washington State Department of Ecology, 360.407.6283