

What is West Nile virus (WNV)?

WNV is the most common mosquito-borne disease in Virginia. Cases usually occur during the summer and early fall, when mosquitoes are most active. The majority of people that get the disease have mild symptoms and do not seek medical care. However, for some people the illness can be very serious requiring hospitalization. The most severe case form of the illness can result in permanent disability or death.

WNV was not found in the United States until fairly recently. In 1999, the very first cases appeared in New York City. By 2001 it had spread to Virginia, when the virus was detected in mosquitoes for the first time. In 2002, Virginia reported its first human WNV cases.

Who gets WNV infections?

Anyone can become infected with WNV, but not everyone has the same symptoms. People 55 years of age and older and people with certain medical conditions (cancer, diabetes, hypertension, kidney disease, and people who have received organ transplants) are far more susceptible to illness and account for most of the serious illness cases.

How is WNV spread?

People get WNV after being bit by an infected mosquito. Fortunately, only certain types of mosquitoes can carry the disease. Of the nearly 60 different species of mosquito species found in Virginia, only five are able to spread WNV. Most cases are attributed to one species, the northern house mosquito (*Culex pippiens*). Mosquitoes get infected by feeding on birds that are infected with WNV.

What are the symptoms of WNV infection?

Most people infected with WNV (80%) do not have any symptoms. An infected person that becomes sick might think they have the flu because the symptoms are similar. These flu-like symptoms include fever, headache, body aches, vomiting, and/or diarrhea. Rash occurs in about half of WNV cases. This symptom along with time of year the illness occurs can be used to differentiate WNV illness from flu.

Less than one percent of people infected with WNV develop neurologic symptoms. In this severe form of the illness, the brain and/or spinal cord become affected. Symptoms of severe illness include high fever, headache, stiff neck, muscle weakness, confusion, disorientation, paralysis, seizures, or coma. After neurologic illness, patients may require long-term care. Ten percent of neurologic WNV cases are fatal.

How soon after exposure to WNV do symptoms occur?

Symptoms typically occur within 2-6 days but may range 2 to 14 days after exposure to an infective mosquito.

How is WNV diagnosed?

If you think you might have WNV, talk with your healthcare provider. Healthcare providers diagnose WNV infection based upon signs and symptoms, a history of possible exposure to mosquitoes that can carry WNV and laboratory testing of blood or spinal fluid.

What is the treatment for a WNV infection?

There is no vaccine or specific treatment available for WNV infections. Non-prescription pain relievers can help with symptoms during minor illness. Hospitalization and supportive care (intravenous fluids, nursing care) are often needed during severe illness.

Do people who have been in contact with someone with WNV infection need to be tested and treated?

If a person is symptomatic and has similar mosquito exposure to someone with WNV they should be tested. A person cannot become infected with WNV from someone with WNV through contact, except in rare instances, including blood transfusion, organ transplantation and mother to baby.

How can WNV infections be prevented?

WNV can be prevented by avoiding mosquito bites. Insect repellents are effective and should be used when outdoors in mosquito-infested areas. Home doors and windows should be well screened to prevent entry of mosquitoes. Eliminate mosquito breeding sites from yards by removing old tires, buckets, tubs, toys and other items that hold rainwater. Dump ornamental containers (e.g., bird baths) on a weekly basis, or use mosquito larvicide pellets or dunks periodically to treat larger containers (e.g., ornamental ponds, stagnant swimming pools). Communities or municipalities may establish mosquito surveillance and control programs to reduce mosquito populations by spraying insecticides, treating storm sewers and puddles with larvicides, and draining stagnant water from ditches.

How can I learn more about WNV?

- If you have concerns about West Nile Virus, contact your healthcare provider.
- Call your local health department. You can find your local health department at vdh.virginia.gov/health-department-locator/.
- Visit the CDC page on West Nile Virus at cdc.gov/west-nile-virus/about/index.html for more information.

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