

What is West Nile virus?

West Nile virus is a virus that may cause different types of disease, such as fevers or encephalitis (swelling of the brain). It is spread by mosquitoes that are infected with the virus and then pass it to humans when they bite. About 1 in 5 people who are infected will develop a fever with other symptoms. Less than 1% of infected people develop a serious, sometimes fatal, neurologic illness.

Who is at risk for West Nile virus?

Anyone of all ages is at risk, but older adults are more likely to develop severe symptoms.

What are the symptoms of West Nile virus?

Most people who become infected will show no symptoms. If symptoms do appear, they usually are mild and include fever, headache, body aches, nausea, vomiting and rash. More severe symptoms include confusion, convulsions, coma, paralysis or even death.

How soon do symptoms appear?

Symptoms usually appear two to six days after the bite of an infected mosquito, but can appear up to 15 days after exposure. In people with compromised immune systems, symptoms may appear up to 21 days after exposure.

How is West Nile virus spread?

It is spread through the bite of an infected mosquito. On rare occasions, people can be infected through blood transfusions or receipt of an infected organ. Since the discovery of West Nile in the United States, new tests have been developed to reduce the risk of blood or organ exposure; as a result these infections are now very rare.

When and for how long is a person able to spread the disease?

People are not able to spread the disease to others. West Nile virus is spread by the bite of infected mosquitoes.

How is a person diagnosed?

A blood test can determine if you have been exposed to the virus.

What is the treatment?

There is no specific treatment for West Nile virus, and antibiotics will not work. However, health-care providers may offer supportive therapy (i.e., rest, fluids) to help manage symptoms.

Does past infection make a person immune?

Yes. People build up immunity to West Nile virus. However, how long the immunity lasts is uncertain at this time.

Should children or others be excluded from child care, school, work or other activities if they have West Nile virus?

No. Infants, toddlers and school-aged children should not be excluded unless the staff determines the child is unwilling or unable to participate in activities.

They also should be excluded if the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

All others can attend work and other functions as long as they are well enough to do so.

What can be done to prevent the spread of West Nile virus?

The most effective way to avoid West Nile virus disease is to prevent mosquito bites. A person can do this by:

- **Use insect repellents when you go outdoors.** Repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-diol products provide longer-lasting protection. To optimize safety and effectiveness, repellents should be used according to the label instructions.
- **When weather permits, wear long sleeves, long pants, and socks when outdoors.** Mosquitoes may bite through thin clothing, so spraying clothes with repellent containing permethrin or another EPA-registered repellent will give extra protection. Don't apply repellents containing permethrin directly to skin. Do not spray repellent on the skin under your clothing.
- **Install or repair screens on windows and doors to keep mosquitoes outside.** Use your air conditioning, if you have it.
- **Reduce the number of mosquitoes around your home.** Emptying standing water from flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires, and birdbaths on a regular basis will reduce the breeding habitats for mosquitoes near your home.

Additional Information:

Additional information is available at www.ndhealth.gov/wny or by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources:

1. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Children in Out-Of-Home Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 132-151.
2. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [West Nile Virus]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 865-867.
3. Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20th Edition*. West Nile Virus. American Public Health Association. 2015: 675-679.
4. Centers for Disease Control and Prevention. 2015. West Nile Virus. www.cdc.gov/westnile/index.html