

State of New Hampshire Department of Health and Human
Services Division of Public Health Services

Symptoms of West Nile Virus

What are the symptoms of West Nile virus infection?

Most people who are infected with the West Nile virus will not have any type of illness. It is estimated that 20% of the people who become infected will develop West Nile fever (WNF) or the milder form of the illness. Symptoms include fever, headache, and body aches, swollen lymph glands, and occasionally a skin rash on the trunk of the body.

WNF does not appear to cause any long-term health effects. There is no specific treatment for WNV infection. People with WNF recover on their own, though symptoms can be relieved through various treatments (e.g. medication for headache and body aches, etc.). WNF is typically a mild disease in people. WNF generally lasts only a few days, though in some cases symptoms have been reported to last longer, even up to several weeks.

Occasionally, an infected person may develop more severe disease such as “West Nile encephalitis,” “West Nile meningitis” or “West Nile meningoencephalitis.” Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord, and meningoencephalitis refers to inflammation of the brain and the membrane surrounding it. Although there is no treatment for WNV infection itself, the person with severe disease often needs to be hospitalized. Care may involve nursing IV fluids, respiratory support, and prevention of secondary infections. The symptoms of severe infection (West Nile encephalitis or meningitis) include headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis. It is estimated that 1 in 150 persons infected with the West Nile virus will develop this more severe form of disease.

How are West Nile infection and West Nile encephalitis treated?

There are no specific therapies. In more severe cases, intensive supportive therapy is indicated, i.e., hospitalization, intravenous (IV) fluids and nutrition, airway management, ventilatory support (ventilator) if needed, prevention of secondary infections (pneumonia, urinary tract, etc.), and good nursing care.

How do people get the virus?

West Nile virus is spread when a mosquito bites an infected bird. The mosquito can then contract the infection and possibly spread it to a human or other animal. West Nile virus is not spread by person-to-person contact such as touching, kissing, or caring for someone who is infected

How long does it take to get sick if bitten by an infected mosquito?

Being bitten by an infected mosquito will not necessarily make you sick since most people who are infected with West Nile virus have no symptoms or experience mild illness. If illness were to occur, it would be within 5 to 15 days of being bitten by an

infected mosquito. Symptoms of mild disease will generally last a few days. Symptoms of severe disease may last several weeks, although neurological effects may be permanent.

If I have West Nile Fever, can it turn into West Nile encephalitis?

Some people may develop a brief, WNF-like illness (early symptoms) before they develop more severe disease, though the percentage of patients in whom this occurs is not known. When someone is infected with West Nile virus (WNV), they will typically have one of three outcomes: 1) no symptoms (most likely); 2) West Nile Fever (WNF) (in about 20% of people); or, 3) severe West Nile disease, such as meningitis or encephalitis (less than 1% of those who get infected). If you develop a high fever with severe headache, consult your health care provider.

I've gotten a mosquito bite. Should I be tested for West Nile virus?

No. Even in areas where West Nile Virus has been detected most mosquitoes are not infected. Illnesses related to mosquito bites are rare, especially in New Hampshire. However, you should see a doctor immediately if you develop symptoms such as high fever, confusion, muscle weakness, severe headaches, stiff neck, or if your eyes become sensitive to light. Patients with mild symptoms should recover completely, and do not require any specific medication or laboratory testing.

What should a person do if he/she thinks they have West Nile encephalitis?

If a person has signs of encephalitis, with fever, muscle weakness, and confusion, he or she should seek medical care as soon as possible.

Who is at risk for getting West Nile encephalitis after being bitten by an infected mosquito?

Persons older than 50 years of age have the highest risk of severe disease.

What proportion of people die when infected with West Nile virus?

Less than 1% of people infected with West Nile virus develops encephalitis, and among those hospitalized with West Nile encephalitis, the case fatality rate ranges from 3% to 15%. Therefore, less than 1 in 1,000 of people infected with West Nile virus die.

**For more information, call the
New Hampshire Department of Health and Human Services,
West Nile Virus Information line
1-866-273-NILE (6453)**