

West Nile Virus Questions Answered (excerpted from www.webmd.com)

1. How do people get infected with West Nile virus (WNV)?

The principle route of human infection with West Nile virus is through the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds, which may circulate the virus in their blood for a few days. The virus eventually finds its way into the mosquito's salivary glands. During subsequent blood meals, the virus may be injected into humans and animals, where it can multiply and possibly cause illness.

Additional routes of infection became apparent during the 2002 West Nile epidemic. It is important to note that these other methods of transmission represent a very small proportion of cases. Transmission has rarely happened as a result of organ transplant or blood transfusion. There have also been reports of suspected transmission through breast milk, in utero, and in laboratory workers handling samples.

2. What are the symptoms of West Nile virus infection?

Most people who are infected with the West Nile virus will have no or minimal symptoms. It is estimated that 20% of the people who become infected will develop West Nile fever: mild symptoms, including fever, headache, and body aches, occasionally with a skin rash on the trunk of the body and swollen lymph glands.

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 one in 150 persons infected with the West Nile virus will develop a more severe form of disease.

3. How is West Nile encephalitis treated?

There is no specific treatment for West Nile virus infection. In more severe cases, intensive supportive therapy is indicated, often involving hospitalization, intravenous fluids, airway management, respiratory support (ventilator), prevention of secondary infections (pneumonia, urinary tract, etc.), and good nursing care.

4. What risk does West Nile virus illness during pregnancy present to a fetus?

Based on the limited number of cases studied so far, it is not yet possible to determine what percentage of WNV infections during pregnancy result in infection of the fetus or medical problems in newborns.

Because of ongoing concerns that mother-to-child WNV transmission can occur with possible adverse health effects, pregnant women should take precautions to reduce their risk for WNV and other mosquito-borne infections by avoiding mosquitoes, using protective clothing, and using repellents containing DEET. Repellents with DEET are safe for pregnant women.

5. Should I continue breastfeeding if I am symptomatic for West Nile virus?

Because the health benefits of breastfeeding are well established, and the risk for West Nile virus transmission through breastfeeding is unknown, findings that the virus can be transmitted through breast milk do not suggest a change in breastfeeding recommendations. The American Academy of Pediatrics and the American Academy of Family Physicians recommend that infants be breastfed for a full year of life.

Lactating women who are ill or who are having difficulty breastfeeding for any reason, as always, should consult their doctors.

6. What proportion of people with severe illness due to West Nile virus die?

Among those with severe illness due to West Nile virus, death rates range from 3% to 15% and are highest among the elderly. Less than 1% of persons infected with West Nile virus will develop severe illness.

7. How does West Nile virus actually cause severe illness and death in humans?

Following transmission by an infected mosquito, West Nile virus multiplies in the person's blood system and crosses the blood-brain barrier to reach the brain. The virus interferes with normal central nervous system functioning and causes inflammation of brain tissue.

8. Should people avoid donating blood or getting blood transfusions or organ transplants?

Blood is lifesaving and often in short supply. Donating blood is safe, and we encourage blood donation now and in the future. Approximately 4.5 million persons receive blood or blood products annually. Although persons needing blood transfusions or organ transplants should be aware of the risk for WNV infection, the benefits of receiving needed transfusions or transplants outweigh the potential risk for WNV infection.

9. How do health care providers test for West Nile virus?

Your doctor will first take a medical history to assess your risk for West Nile virus. People who live in or traveled to areas where West Nile virus activity has been identified are at risk of getting West Nile encephalitis; persons older than 50 years of age have the highest risk of severe disease. If you are determined to be at high risk and have symptoms of West Nile encephalitis, your provider will draw a blood sample and send it to a commercial or public health laboratory for confirmation. They may also perform a lumbar puncture (also known as a spinal tap) to collect spinal fluid for analysis.

10. Who is at risk for getting West Nile encephalitis (caused by severe infection)?

All residents of areas where virus activity has been identified are at risk of getting West Nile encephalitis; persons over 50 years of age have the highest risk of severe disease. It is unknown if people with weakened immune systems are at increased risk for WNV disease.

11. Can you get West Nile encephalitis from another person?

No. West Nile encephalitis is NOT transmitted from person-to-person. For example, you cannot get West Nile virus from touching or kissing a person who has the disease, or from a health care worker who has treated someone with the disease.

12. Where did West Nile virus come from?

West Nile virus has been commonly found in humans and birds and other vertebrates in Africa, Eastern Europe, West Asia, and the Middle East, but until 1999 had not previously been documented in the Western Hemisphere. It is not known from where the U.S. virus originated, but it is most closely related genetically to strains found in the Middle East.

13. Is West Nile virus seasonal in its occurrence?

In the temperate zone of the world (between latitudes 23.5° and 66.5° north and south), West Nile encephalitis cases occur primarily in the late summer or early fall. In the southern climates where temperatures are milder, West Nile virus can be transmitted year round.

14. Is there a vaccine available to protect humans from West Nile virus?

No. Currently there is no WNV vaccine available for humans. Many scientists are working on this issue, and there is hope that a vaccine will become available in the next few years.

15. If I live in an area where birds or mosquitoes with West Nile virus have been reported and a mosquito bites me, am I likely to get sick?

No. Even in areas where the virus is circulating, very few mosquitoes are infected with the virus. Even if the mosquito is infected, less than 1% of people who get bitten and become infected will get severely ill. The chances you will become severely ill from any one mosquito bite are extremely small.

16. If a person contracts West Nile virus, does that person develop a natural immunity to future infection by the virus?

It is assumed that immunity will be lifelong; however, it may wane in later years.