

# Information on West Nile Virus (WNV)



The questions and answers that follow have been distilled from information prepared by several sources including the Centers for Disease Control and Prevention, Division of Vector-Borne Infectious Diseases and the Idaho Division of Health. For detailed information access the Idaho Department of Health and Welfare website at [www.healthandwelfare.idaho.gov](http://www.healthandwelfare.idaho.gov) or the CDC website <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

## What is West Nile Virus (WNV)?

It is a virus that can infect birds, mosquitoes, horses, humans and other animals.

## WNV Background

West Nile Virus was first isolated from an adult woman in the West Nile District of Uganda in 1937. Since then, WNV has been found in parts of Africa, Europe, the Middle East, west and central Asia, and the U.S. The first case of WNV infection in the United States was identified in New York City in 1999. West Nile infections have steadily spread westward across the United States. In the summer of 2004 WNV infection was identified in birds and horses in southwest Idaho. On September 9, 2004, two human cases were reported. These were the first documented cases of WNV infection acquired locally indicating that the virus had arrived.

## What are the symptoms of West Nile infection?

Approximately 80% of WNV infections are mild and may go unnoticed. Perhaps 20% of WNV infections will result in West Nile fever, an illness characterized by fever, headache, body aches, and occasionally skin rash and swollen lymph glands. A serious complication of WNV infection is *encephalitis or other neuroinvasive disease*. Symptoms can include severe headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and, rarely, death.

## How does WNV cause severe illness in humans?

Once a person is infected, WNV may multiply in the person's blood system and cross the blood-brain barrier to reach the brain. Once there, the virus can interfere with normal functioning of the central nervous system and causes inflammation of brain tissue (*encephalitis*), with sometimes-fatal results. The risk of serious illness or death is greatest among the elderly or among individuals with weakened immune systems. ***It is important to realize that less than 1% of persons infected with WNV will develop severe illness.***

## How long does it take for symptoms of WNV infection to appear?

The incubation period for WNV infection in humans is usually 3 to 14 days.

## How is WNV transmitted?

WNV lives in infected birds. Mosquitoes become infected when they feed on those birds. The infected mosquito can then transmit the virus to humans and other animals while biting to take blood. Once in the bloodstream, the virus may multiply and cause illness. There is some evidence that WNV infection can be transmitted from an infected person to another person during a blood transfusion or from an infected mother to her baby during pregnancy.

## Can someone get WNV encephalitis from another person?

No. Encephalitis is a condition that can result from WNV infection. A condition cannot be transmitted.

## Can you get WNV directly from other insects or ticks?

Infected mosquitoes are the primary source of WNV. Although ticks infected with WNV have been found in Asia and Africa, their role in the transmission and maintenance of the virus is uncertain. However, there is no information to suggest that ticks played any role in the cases identified in the U.S.

## Can you get WNV directly from birds?

There is no evidence that a person can get the virus from handling live or dead infected birds. ***However, a person should never handle any dead animal without wearing gloves.*** The carcass should be placed in double plastic bags before being disposed of in the garbage. After disposing of the dead bird, remove the gloves and wash the hands thoroughly with warm water and soap.

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### What can I do to reduce my risk of becoming infected with WNV?

- **Avoid mosquito bites to avoid infection!**
- Be extra vigilant between dusk and dawn when mosquitoes primarily feed.
- Wear long-sleeved shirts and long pants whenever you are outdoors and mosquitoes are around.
- Spray clothing with repellents containing permethrin or DEET since mosquitoes may bite through thin clothing.
- Apply insect repellent concentrations higher than 35% does not provide additional protection.
- ***Use caution when*** sparingly to exposed skin. An effective repellent for **adults** will contain 30% to 35% DEET. DEET in ***applying insect repellents to children, especially children under 2 years of age! Read and follow the manufacturer's "Directions for Use" before applying any repellent, especially on children!***
- Repellents may irritate the eyes and mouth, so avoid applying repellent to children's hands.
- Install or repair window and door screens so that mosquitoes cannot get indoors.
- Get rid of standing or stagnant water in discarded tires, tubs, etc. where mosquitoes breed.

### What should I do if I think I have West Nile Virus infection?

Milder WNV illness improves on its own, and people do not necessarily need to seek medical attention for this infection though they may choose to do so. If you develop symptoms of severe WNV illness, such as unusually severe headaches or confusion, seek medical attention immediately. Severe WNV illness usually requires hospitalization. Pregnant women and nursing mothers are encouraged to talk to their doctor if they develop symptoms that could be WNV. Central District Health Department does not have physicians on staff and does not provide testing for WNV infection.

### Is there a human vaccine or treatment for WNV infection?

At this time there is not a vaccine for humans, but several companies are working toward developing a vaccine. There is no specific treatment for WNV infection only supportive therapy.

For detailed statistics, surveillance, and prevention information on WNV access the Idaho Department of Health and Welfare website at <http://www.healthandwelfare.idaho.gov> Centers for Disease Control and Prevention website at <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

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