



Banner Thunderbird
Medical Center

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What is West Nile Virus?

West Nile Virus (WNV) is a mosquito-borne virus that was first detected in the West Nile region of Uganda in 1937. In August of 1999, an outbreak of West Nile encephalitis occurred in New York City. This was the first time that human WNV infections were detected in the Western Hemisphere. West Nile virus is primarily a bird infection that is spread by migratory birds. The mosquito is the principal vector, transmitting the virus from infected to non-infected hosts, including birds, animals, and humans.

Are there any symptoms associated with WNV?

The majority of people and animals that are infected with the virus have a mild illness or no symptoms.

The incubation period following WNV exposure is usually 3 to 14 days; symptoms generally last 3-6 days. An estimated 20% of those who become infected will develop West Nile fever, characterized by a sudden onset of flu-like symptoms: fever, headache, body aches, often with nausea and vomiting. A skin rash on the trunk of the body and swollen lymph glands also may occur. In rare cases, the virus can cause a more serious conditions such as meningitis or encephalitis (an inflammation of the brain).

How is WNV diagnosed?

Diagnosis is based on clinical suspicion and WNV antibody testing of CSF (cerebrospinal fluid) and serum. Testing is conducted at four commercial labs and the state health department lab. The most efficient diagnostic method is detection of IgM antibody to WNV in serum or CSF collected within seven days of illness onset.

How is WNV treated?

Treatment is supportive, and in severe cases often involves hospitalization, intravenous fluids, respiratory support, and prevention of secondary infections.

How is WNV prevented?

Avoid mosquito bites to avoid infection by applying insect repellent containing DEET or Picaridin to exposed skin when you go outdoors (do not use on children under 2 years of age). Products containing these active ingredients typically provide long-lasting protection than others. Also, be aware of peak mosquito biting time which is from dusk to dawn. When possible, wear light-colored, long-sleeved tops and long pants (dark colors attract mosquitoes) and socks when outdoors. Spraying clothes with a repellent will give extra protection.

It's also a good idea to mosquito-proof your home by eliminating potential breeding grounds for mosquitoes by draining standing water and installing and repair screens on windows and doors.