



WEST NILE VIRUS

www.lawestvector.org

Transmission of West Nile Virus

Q. How do people become infected with the West Nile virus?

A. Mosquitoes become infected when they feed on infected birds, which may circulate the virus in their blood for a few days. Infected mosquitoes can then transmit West Nile virus to humans and animals while biting to take blood. The virus is located in the mosquito's salivary glands. During blood feeding, the virus may be injected into the animal or human, where it may multiply possibly causing illness.

Q. 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?

A. No. All residents of areas where virus activity has been identified are at risk of getting the West Nile virus; however persons over 50 years of age have the highest risk of severe disease. 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 are bitten and become infected will become severely ill**. The chances you will become severely ill from any one mosquito bite are extremely small.

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

A. 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.

Q. Can you get West Nile virus directly from birds?

A. There is no evidence that a person can get the virus from handling live or dead infected birds. However, persons should avoid bare-handed contact when handling *any* dead animals and use gloves or double plastic bags to place the carcass in a garbage can.

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

A. Less than 1% of persons infected with West Nile virus will develop severe illness. Among those with severe illness due to West Nile virus, case-fatality rates range from 3% to 15% and are highest among the elderly. **In 2003, there were 264 total deaths from the West Nile virus in the United States. In comparison, there are 20,000 to 36,000 deaths annually in the United States resulting from the common influenza virus.**

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

A. Yes. At this time, it is believed that immunity will be lifelong.

Symptoms of West Nile Virus

Q. What are the symptoms of the West Nile virus?

A. Approximately 80 percent of people who are infected with WNV will not show any symptoms at all. Up to 20 percent of the people who become infected will display mild symptoms, including fever, headache, and body aches. Symptoms typically last a few days. And for less than 1%, more severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and, rarely, death.

Control of West Nile Virus

Q. What can be done to control the spread of the West Nile virus?

A. The WNV has spread to 46 states since 1999. Mosquito reduction and control measures nationwide have been able to slow but not stop the spread of the virus. It is expected to occupy all of the continental United States by the end of 2004. Control of West Nile virus and other arboviral diseases is accomplished through integrated vector management programs. The L.A. County West Vector Control District maintains such programs including: surveillance for West Nile Virus activity in mosquito vectors, birds, horses, and sentinel chicken flocks; and the implementation of appropriate mosquito control measures to reduce mosquito populations. **If you have a mosquito complaint, call (310) 915-7370.** A technician will arrange a visit to investigate and locate the mosquito breeding source that is causing your problem.

Q. Is there a vaccine against West Nile encephalitis?

A. No, but several companies are working towards developing a vaccine.

Q. What can I do to reduce my risk of becoming infected with West Nile virus?

- A.
- Stay indoors at dawn, dusk, and in the early evening.
 - Wear long-sleeved shirts and long pants whenever you are outdoors.
 - Spray clothing with repellents containing permethrin or DEET since mosquitoes may bite through thin clothing.
 - Apply insect repellent sparingly to exposed skin. An effective repellent will contain 35% DEET (N,N-diethyl-meta-toluamide). DEET in high concentrations (greater than 35%) provides no additional protection.
 - Repellents may irritate the eyes and mouth, so avoid applying repellent to the hands of children.
 - *Whenever you use an insecticide or insect repellent, be sure to read and follow the manufacturer's DIRECTIONS FOR USE, as printed on the product.*
 - Install or repair window and door screens so that mosquitoes cannot get indoors.
 - Note: Vitamin B and "ultrasonic" devices are NOT effective in preventing mosquito bites.

Q. Where can I get more information on mosquito repellents?

A. Visit the American College of Physicians website: "Mosquitoes and mosquito repellents: A clinician's guide" (Mark S. Fradin, MD. *Annals of Internal Medicine*. June 1, 1998;128:931-940). (www.acponline.org/journals/annals/01jun98/mosquito.htm)

Testing and Treating West Nile Encephalitis in Humans

Q. I think I have symptoms of West Nile virus. What should I do?

A. Contact your health care provider if you have concerns about your health. If you or your family members develop symptoms such as high fever, confusion, muscle weakness, and severe headaches, you should see your doctor immediately.

Q. How is West Nile encephalitis treated?

A. There is no specific therapy. 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.

West Nile Virus and Birds

Q. Do birds infected with West Nile virus die or become ill?

A. There is a large die-off of American crows in areas with the West Nile virus. West Nile virus has been identified in more than 100 species of birds found dead in the United States.

Q. How can I report a sighting of dead bird(s) in my area?

A. If you find a dead bird, particularly a crow or other corvid (e.g., jay, magpie, raven, etc.), please call the number below promptly. The bird must be dead no more than 24 hours to enable testing for West Nile Virus. Do not touch the bird. Department of Health Services will record all dead bird reports and will arrange for pickup and laboratory testing for WN virus when appropriate.

***West Nile Virus Dead Bird Surveillance Program
Division of Communicable Disease Control
California Department of Health Services
Telephone: 877-WNV-BIRD***

West Nile Virus and Horses

Q. Has West Nile virus caused severe illness or death in horses?

A. Yes, while data suggest that most horses infected with West Nile virus recover, results of investigations indicate that West Nile virus has caused deaths in horses in the United States.

Q. Can I vaccinate my horse against West Nile virus infection?

A. A West Nile virus vaccine for horses was recently approved, but its effectiveness is unknown.

Q. Where can I get more information on horses and West Nile virus?

A. Visit the USDA website [Animal and Plant Health Inspection Service \(APHIS\)](http://www.aphis.usda.gov/lpa/issues/wnv/wnv.html) (www.aphis.usda.gov/lpa/issues/wnv/wnv.html)

For Additional Information on West Nile Virus, go to the following web sites:

- Los Angeles County West Vector & Vector-Borne Disease Control District (<http://www.lawestvector.org>)
- California West Nile Virus Surveillance Information Center (<http://westnile.ca.gov>)
- Centers for Disease Control and Prevention (<http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>)
- Los Angeles County Department of Health Services (<http://lapublichealth.org/acd/VectorWestNile.htm>)