

West Nile Virus

West Nile virus (WNV) affects humans, birds, horses, and other animals. The virus is carried from infected birds (the host animal) to humans and other mammals through mosquito bites. When a mosquito bites, a small amount of blood is injected into the skin of the bitten person or animal. This infected blood can transmit WNV or other similar diseases.

West Nile virus is more commonly found in the eastern United States. West Nile virus disease activity has spread rapidly since 1999, when it was first reported in the United States. The main period of risk is from July through September, but cases have occurred from May through December. The outbreak of WNV infection in the United States during the summer of 2002 was the largest reported. There were 284 deaths and 4156 human cases of WNV infection reported in 2002. The July 23/30, 2003, issue of *JAMA* includes articles about WNV.

SYMPTOMS OF WEST NILE VIRUS INFECTION

- Fatigue
- Headache
- Loss of appetite
- Nausea or vomiting
- Muscle aches
- Rash
- Fever
- Confusion, delirium, or coma

Most people who become infected with WNV do not develop severe illness. Mild WNV infections usually last 3 to 6 days after an **incubation** (delay) period of 3 to 14 days after the initial exposure to the virus. Approximately 1 in 150 persons infected with WNV develops a more severe form of WNV infection, including **encephalitis** (inflammation of the brain). Some individuals with a severe WNV infection develop rashes, paralysis, inflammation of nerves, and seizures. Older persons are more susceptible to severe infection with WNV.

DIAGNOSIS AND TREATMENT

Special blood tests may be done by local or state health departments if your doctor suspects you might have WNV infection. Because WNV is a virus, antibiotics will not work to treat WNV infection. Persons who are ill with WNV infection usually require hospitalization for supportive care. There is currently no vaccine for WNV. Research studies are ongoing to find a way to immunize persons against WNV infection.

PREVENTION

Preventing WNV transmission by mosquitoes is the most important way to decrease WNV infection in humans:

- Drain all standing water where mosquitoes breed (birdbaths, old tires, flower pots, buckets, stagnant puddles or ponds).
- Wear protective clothing when mosquito exposure is possible (long sleeves, long pants, socks).
- Use an insect repellent containing DEET on exposed skin.
- Stay indoors during peak mosquito time (dawn, early evening).
- Keep windows and screens in good repair.

Also, do not handle dead birds. More than 162 species of birds have been reported to have WNV infection. Crows have a particularly high death rate from WNV. Local and state health departments may collect dead birds to test them for the presence of WNV.

FOR MORE INFORMATION

- Centers for Disease Control and Prevention
888/246-2675
www.cdc.gov
- National Institute of Allergy and Infectious Diseases
www.niaid.nih.gov/factsheets/westnile.htm
- Environmental Protection Agency
www.epa.gov/pesticides/factsheets/skeeters.htm
- National Pesticide Information Center
800/858-7378
www.npic.orst.edu

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Sources: Centers for Disease Control and Prevention, National Institute of Allergy and Infectious Diseases, Environmental Protection Agency, National Pesticide Information Center

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