WEST NILE VIRUS Media Facts

West Nile virus (WNV) can cause serious, life-altering and even fatal illness. WNV is established as a seasonal epidemic in North America that flares up in the summer and continues into the fall.

Prevention is the Key: Action Steps for the General Public

- When outdoors, use insect repellents containing DEET, picaridin, or oil of lemon eucalyptus. Re-apply repellent if mosquitoes start to bite, always following label instructions.
- Many mosquitoes are most active between dusk and dawn. Take extra care to use a repellent and wear long sleeves and pants during this time, or consider avoiding outdoor activities.
- Fix or install window and door screens.
- Eliminate potential mosquito breeding sites by emptying standing water. Change the water in pet dishes daily and replace the water in birdbaths at least weekly. Empty children's wading pools and store on their sides when not in use.

WNV Background Information

- **The Total Human WNV Cases Reported to CDC.** From 1999 through 2004 there were nearly 17,000 cases of West Nile virus disease reported to CDC, with thousands of the less severe cases likely unreported. See www.cdc.gov/westnile for more details.
- **How WNV is spread.** The most likely route of WNV infection to humans is through the bite of an infected mosquito. In very rare cases, WNV has also been transmitted by organ transplantation, blood transfusion, from mother-to-fetus, and possibly through breast milk.
- **WNV is here to stay.** WNV was first reported in the United States in New York State during the summer of 1999. While the number of people affected by the disease and the location of the more intense outbreaks change each season, it is clear that WNV is now established across the United States.
- **Risk period for WNV.** The risk period for WNV infection can be nearly year-round in some climates, but peaks in late summer and early fall in most areas.
- **Mature adults are at higher risk**. People age 50 and over have a higher incidence of severe illness or fatal disease caused by WNV. In 2004, more than 60 percent of WNV cases and 95 percent of the deaths due to WNV infection were among people age 50 years and older. Very few cases of WNV disease occur among children.
- **Outdoor workers and recreators also are at a greater risk of WNV exposure.** This group includes those working outdoors when mosquitoes are biting, such as farmers, farm workers, foresters, landscapers, grounds-keepers, construction workers, mechanics, among many others. People who are gardening, walking, or playing outdoor sports also should be alert to their risk.
- **WNV Disease.** The time from mosquito bite to symptoms generally is from three to 14 days. Although most human WNV infections don't cause any symptoms, up to 20 percent of the people who become infected develop symptoms such as fever, headache, and body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash. Most symptoms last only several days, but even healthy people have become sick for several weeks.

  A smaller number of people develop **severe disease**, such as inflammation of the brain, the membranes of the brain or spinal cord, or nerve cells in the brain and spinal cord. Signs of severe infection include high fever, stiff neck, disorientation, tremors, muscle weakness, and paralysis. Severe disease is more likely to occur among people age 50 and over. These severe cases may be fatal.
- **WNV Transmission.** The main transmission cycle for WNV is between birds and mosquitoes. The infected female mosquitoes can transmit WNV through their bites to humans and other animals such as horses.
- **Tracking WNV.** Local, State, and Federal agencies are working together to track WNV transmission in mosquitoes, birds, horses, other animals, and humans in the United States.
- **Tracking dead birds can be an early warning system for WNV.** Tracking the presence of the virus is important for planning prevention and control activities. The investigation of deaths in some wild birds, especially early in the season, provides an assessment of WNV transmission in an area.
- **Supporting community-based mosquito control programs.** Individuals are encouraged to assist their local mosquito control programs. If one does not exist within their community, they should ask about starting one.

For more information, visit www.cdc.gov/westnile or call the CDC public response hotline at 1-800-CDC-INFO or 1-888-232-6348 (TTY).

EFFECTIVE MOSQUITO REPELLENTS

A number of mosquito repellent active ingredients are EPA-registered for use on skin and clothing. The following two typically provide longer-lasting protection than others:

- DEET (N,N-diethyl-m-toluamide)
- Picaridin (KBR 3023)

Oil of lemon eucalyptus [p-menthane 3,8-diol (PMD)], a plant-based repellent, also is approved by the EPA. Studies suggest that it provides protection similar to repellents with low concentrations of DEET.

Permethrin is another good repellent and insecticide for use on clothing, shoes, bed nets, and camping gear, but not directly on skin.

FIGHT THE BITE

CDC Centers for Disease Control and Prevention

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