



## Just the Facts...

### West Nile Virus

**Q. What is West Nile virus (WNV)?**

A. West Nile virus (WNV) is a mosquito-borne virus that was first seen in the United States in 1999.

**Q. Is West Nile virus now established in the United States?**

A. Yes. As of December 2003, WNV was documented in 45 states and the District of Columbia.

**Q. How do people get infected with West Nile virus?**

A. By the bite of an infected mosquito.

**Q. What is the basic transmission cycle?**

A. Mosquitoes become infected by feeding on infected birds, which have virus circulating in their bloodstream for a few days. Infected mosquitoes then transmit the virus to more birds, as well as to humans and other animals, when biting them. It is NOT transmitted from person-to-person. For example, you cannot get the 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 or other animals?**

A. There is no evidence that a person can get WNV from handling either live or dead infected animals. However, as a general precaution, always wear gloves when handling dead animals, including dead birds, and use double plastic bags when disposing of them.

**Q. Besides mosquitoes, can you get West Nile virus directly from other insects or ticks?**

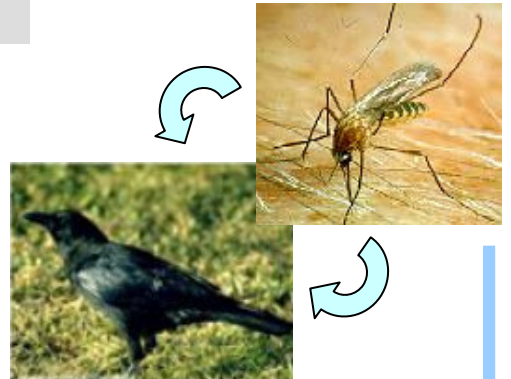
A. Infected mosquitoes are the primary vector, or means of transmission, for West Nile virus. There is no evidence to suggest that ticks or other insects have played any role in the cases identified in the United States.

**Q. What are the chances of becoming infected with West Nile virus?**

A. According to the Centers for Disease Control and Prevention, very few of the mosquitoes (less than 1%) are infected. In addition, less than 1% of individuals who are actually bitten by an infected mosquito develop severe symptoms. Therefore, a person's chance of becoming seriously ill from any one mosquito bite is extremely small.

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

A. Most people who are infected with WNV experience mild flu-like symptoms, which can include fever, headache, and body aches, before fully recovering. In a small number of cases, particularly among the elderly, the disease is much more serious and causes encephalitis. Encephalitis is an inflammation of the brain. It is marked by rapid onset of severe headache, high fever, stiff neck, disorientation, muscle weakness, paralysis, coma, and occasionally death.



***Q. Is a woman's pregnancy at risk if she becomes infected with West Nile virus?***

**A.** There is no documented evidence that a pregnancy is at risk due to infection with WNV.

***Q. Is there a treatment for West Nile virus infection?***

**A.** Although there is no specific treatment, medication or cure, the symptoms and complications of the disease can be treated. Most people who get this illness recover from it.

***Q. Can you get infected by West Nile virus more than once?***

**A.** It appears that once a person has been infected with WNV, a natural immunity develops. However, that immunity may decrease over time.

***Q. Is there a vaccine against West Nile encephalitis?***

**A.** A human vaccine is not available, although several companies are working to develop one.

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

- A.**
- Stay indoors at dawn, dusk, and early evening. This is when mosquitoes are most active.
  - Wear long-sleeved shirt, long pants, and socks whenever you are outdoors; wear loose-fitting clothing to prevent mosquito bites through thin fabric.
  - Use insect repellents that have been approved by the Environmental Protection Agency (EPA). They are safe and effective.
    - For your skin, use a product that contains 20-35% **DEET** (N,N-diethyl-meta-toluamide). **DEET** in higher concentrations is no more effective.
    - Use **DEET** sparingly on children, and don't apply to their hands, which they often place in their eyes and mouths.
    - Apply **DEET** lightly and evenly to exposed skin. Avoid contact with eyes, lips, and broken or irritated skin.
    - To apply to your face, first dispense a small amount of **DEET** onto your hands and then carefully spread a thin layer.
    - Wash **DEET** off when your exposure to mosquitoes ceases.
    - For your clothing, use an insect repellent spray to help prevent bites through the fabric. Use a product that contains either **permethrin** or **DEET**. **Permethrin** is available commercially as 0.5% spray formulations.
    - Do not inhale aerosol formulations of any insect repellent.
    - **Permethrin** should only be used on clothing; never on skin.
    - When using any insect repellent, always FOLLOW LABEL DIRECTIONS.
    - For optimum protection, soldiers should utilize the **DOD INSECT REPELLENT SYSTEM**. In addition to proper wear of the battle dress uniform (BDUs), which provides a physical barrier to insects, this system includes the concurrent use of both skin and clothing repellents:

Standard military skin repellent: 33% **DEET**, long-acting formulation, one application lasts up to 12 hours, **NSN 6840-01-284-3982**.

Standard military clothing repellents, either: aerosol spray, 0.5% **permethrin**, one application lasts through 5-6 washes, **NSN 6840-01-278-1336**; or impregnation kit, 40% **permethrin**, one application lasts the life of the uniform, **NSN 6840-01-345-0237**.

- Eliminate mosquito-breeding sites by emptying water from birdbaths, old tires, and other outdoor containers or debris.
- Make sure that door and window screens do not have holes.
- Vitamin B, ultrasonic devices, and 'bug zappers' are NOT effective in preventing mosquito bites.

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

**A.** Contact the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), Entomological Sciences Program, Aberdeen Proving Ground, Maryland 21010-5403: DSN 584-3613; CM (410) 436-3613; FAX – 2037; <http://chppm-www.apgea.army.mil/westnilevirus/>.

