

Insect Repellents and West Nile Virus Infection

Summertime is a great time for you and your preschooler to spend time together in the great outdoors. It's also a time to take precautions to protect your child and other family members from outdoor health risks. One of those risks is the West Nile virus infection. The Centers for Disease Control and Prevention alert us that the West Nile virus infection is a seasonal epidemic that flares up in the summer and continues into the fall.

The virus was first found in Wisconsin in 2001 in infected birds. The first Wisconsin human infections of West Nile virus were documented in 2002.

Something to note: The chance that any one person is going to become ill from a single mosquito bite remains low. The risk of severe illness and death is highest for people over 50 years old, although people of all ages can become ill.

How is West Nile Virus Infection Spread?

West Nile virus infection is spread by the bite of an infected mosquito. Mosquitoes can become West Nile virus infection carriers when they feed on infected birds. Infected mosquitoes can then spread West Nile virus to humans and other animals when they bite. In a very small number of cases, West Nile virus also has been spread through blood transfusions, organ transplants, breastfeeding and even during pregnancy from mother to baby. West Nile virus is not spread through casual contact.

Symptoms of West Nile Virus Infection

People usually develop symptoms of West Nile virus infection three to fifteen days after they are bitten by an infected mosquito. Most (80 percent)

who are infected with the virus won't show any symptoms at all. Those who become infected will have symptoms including fever, headache, and body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms can last for only a few days, though even healthy people have been sick for several weeks. Severe symptoms of West Nile virus affect about one in 150 people and include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. In rare cases the infection may be fatal, particularly in the elderly and people with other medical conditions.

Treatment for West Nile Virus Infection

No specific treatment for West Nile virus infection exists. In mild cases, symptoms such as fever and aches pass on their own. A doctor may provide treatment to relieve symptoms. In more severe cases, hospitalization may be required.

Reduce Your West Nile Virus Risk



- ◆ Avoid Mosquito Bites
- ◆ Mosquito-Proof Your Home

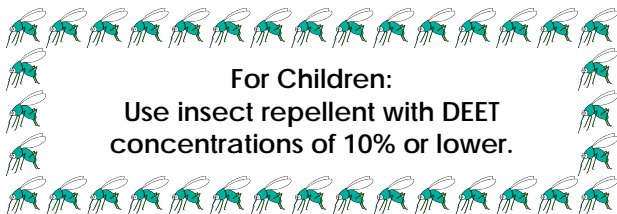
Avoid Mosquito Bites

Take precautions to reduce your family's risk by wearing long sleeves, long pants and socks during peak mosquito biting hours (during low light, with calm winds, and in warm & humid conditions). Limit the time spent outdoors at dawn and dusk during mosquito season (June to September) or

other times mosquitoes are active. Avoid areas where there are weeds, tall grass, or bushes where mosquitoes may be present.

Wise Use of Insect Repellent

Using DEET (N, N-diethyl-m-toluamide) insect repellent has been shown to be very effective against a variety of biting insects, including mosquitoes. However, the EPA (Environmental Protection Agency) suggests caution in using DEET products with children and suggests that DEET concentrations of 10% or lower are effective for children and may be preferred for most situations. Many repellents have concentrations much higher than 10%. **Check the label on the repellent to see the DEET concentration percentage.** Some chemical repellents include products used to treat clothing which contain permethrin or permethrin. These products should not be used on skin. Choose products carefully. Take into account the following precautions when using DEET repellent:



- Read and follow all directions and precautions on the product label.
- Do not apply over cuts, wounds, or irritated skin.
- Do not apply to hands or near eyes and mouth of young children.
- Do not allow young children to apply this product.
- Apply repellent sparingly, and only to exposed skin or clothing. One application will last four to eight hours.
- Do not use under clothing.
- After returning indoors, wash treated skin with soap and water.
- Wash treated clothing before wearing it again.
- In rare cases, DEET products may cause skin reactions. If you suspect a reaction,

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discontinue use, wash the treated skin, and call the poison control center at 1-800-222-1222.

- For aerosol and pump spray formulation labels, avoid spraying in an enclosed area.
- To apply to face, spray on hands first and then rub on face. Do not spray directly onto face.
- Store repellents out of reach of small children.
- Because of concerns about skin permeability, DEET should not be applied to children under two months of age.

You might want to consider an insect repellent made from plant derivatives such as soybean oil (Bite Blocker*) and eucalyptus oils. They work almost as well as DEET products for the first 1-2 hours.

Mosquito Proof Your Home

Mosquito proof the area near your home. Eliminate standing water. Mosquitoes lay their eggs in standing water. Take a walk around your property to check for standing water. Remove water collecting objects such as pails and tires. Make sure gutters are not clogged and holding water. Dump bird baths and flower pots that contain water once a week. Turn over wading pools, boats and wheelbarrows. To keep mosquitoes from coming indoors, install well-fitting screens on both windows and doors. Repair damaged screens.

** Mention of brand name does not imply endorsement .*

Sources:

- “Breeding Habitat Source Reduction.” Department of Health and Family Services. Division of Public Health. Bureau of Environmental Health. 1 West Wilson Street. Madison WI. May 2003.
- Phillip J. Pellitteri. West Nile and Your Back Yard. <http://www.entomology.wisc.edu/entobtn.html>. (retrieved July 14, 2004).
- Reregistration of the Insect Repellent. (April 28, 1998). U.S. Environmental Protection Agency. <http://www.epa.gov/pesticides/factsheets/chemicals/deet.htm>
- Tick and Insect Repellents. (July 2003). Wisconsin Department of Health and Family Services, Division of Health.
- “West Nile Virus.” Department of Health and Human Services. Centers for Disease Control and Prevention(CDC). <http://www.cdc.gov/westnile>
- “West Nile Virus Infection.” Disease Fact Series. Wisconsin Department of Health and Family Services. Bureau of Communicable Diseases. Communicable Disease Epidemiology Section. April 2003.

This document can be made available in alternative formats, such as large print, Braille, or audio tape, by contacting your county Extension office. (TTY 1-800-947-3529)

For more information on Parenting and Child Development, contact: Joan E. LeFebvre, Area Family Living Agent, University of Wisconsin, Extension, 330 Court Street, Courthouse, Eagle River WI 54521-8362, 715-479-3653, FAX 715-479-3605, E-Mail joan.lefebvre@ces.uwex.edu May, 2005