

### What is West Nile virus?

West Nile virus is a disease caused by a mosquito-borne virus. West Nile virus first appeared in the United States in 1999, when at least 62 people in the New York City area got sick and seven people died. Since that time, the virus has spread throughout the United States, including Vermont. Horses are also commonly affected by this disease.

### How do people get West Nile virus?

The vast majority of infections come from the bite of an infected mosquito. Mosquitoes are infected when they feed on an infected bird. When an infected mosquito bites a person, the virus is injected into the person and may cause illness. West Nile virus can also be spread by organ transplantation, blood transfusion, from a mother to fetus, and possibly by breast milk.

Although birds and other animals may be infected with West Nile virus, there is no evidence that a person can get the virus from handling live or dead animals. However, wear gloves whenever handling a dead animal, including birds.

### If a mosquito bites me, will I get sick?

Most mosquitoes are NOT infected with West Nile virus. Even if an infected mosquito bites you, your chances of getting sick are low. Most people who are infected do not have any symptoms. Less than 1 percent of people who are infected develop severe illness, like encephalitis or meningitis. Another 20 percent of people who are infected have a milder illness.

People aged 50 and older have the highest risk of getting severely ill if bitten by a mosquito infected with West Nile virus.

### What are symptoms of West Nile virus infection?

In milder illness, symptoms may include fever, headache, body aches, skin rash and swollen lymph glands. Symptoms can last for as little as a few days but can last for several weeks. With more severe illness, people may have headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis and, rarely, death.

### How is West Nile virus infection treated?

There is no specific treatment for West Nile virus, but the symptoms can be treated. With severe illness, hospitalization and treatment in an intensive care unit may be required.

### How common is West Nile virus in Vermont?

West Nile virus has been detected in dead birds, mosquitoes, and horses in Vermont. It is a relatively uncommon cause of illness in people. Since 2011, two or three infections in people have been reported each year. Prior to that, the most recent documented case of human illness was in 2003. West Nile virus continues to be detected in mosquitoes each year.

### Additional Resources

Centers for Disease Control and Prevention: <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

Vermont Department of Health website: <http://healthvermont.gov/prevent/arbovirus/index.aspx>

## What can I do to protect myself from West Nile virus?

To protect yourself, you can take steps to reduce mosquito breeding areas near your home and prevent mosquito bites.

## What can I do to keep mosquitoes from biting?

- Wear long-sleeved shirts and long pants when you are outdoors.
- You may want to limit the amount of time you spend outdoors at dawn and dusk, or at other times when mosquitoes are active.
- Use insect repellent labeled as "effective against mosquitoes." Proven effective ingredients include DEET (N,N-diethyl-meta-toluamide), Picaridin(KBR 3023), and oil of lemon eucalyptus (p-menthane 3,8-diol [PMD] ). Be sure to carefully follow the directions on the label. Repellents should be applied sparingly to clothing and exposed areas of skin. They should not be applied to a child's face or hands, or to skin that is scratched or irritated. Wash skin where repellents were applied when mosquito exposure has ended.
- The repellent/insecticide permethrin can be used on clothing. It remains effective through several washes.
- Take special care to cover up the arms and legs of children playing outdoors.
- Cover baby carriages or outdoor playpens with mosquito netting.
- Fix any holes in your screens and make sure they are tightly attached to the doors and windows.

## What can I do to reduce the number of mosquitoes around my home?

- Mosquitoes need water to reproduce. They can breed in any puddle or standing water that lasts more than four days. By removing areas of standing water around your house, you will eliminate their breeding grounds and reduce the number of mosquitoes.
- Dispose of or regularly empty any metal cans, plastic containers, ceramic pots, and other water holding containers (including trash cans) on your property.
- Pay special attention to discarded tires. Tires are a common place for mosquitoes to breed.
- Drill holes in the bottom of recycling containers that are left outdoors so water can drain out.
- Clean clogged roof gutters of leaves and debris that prevent drainage of rainwater.
- Turn over plastic wading pools and wheelbarrows when not in use.
- Do not allow water to stagnate in birdbaths. Change it every three or four days.
- Aerate ornamental ponds or stock them with fish.
- Keep swimming pools clean and properly chlorinated. Remove standing water from pool covers.
- Use landscaping to eliminate standing water that collects on your property.
- If you own horses, donkeys, llamas or alpacas, ask your veterinarian about the vaccine.

## Additional Resources About Preventing Mosquito Bites

Centers for Disease Control and Prevention:

[http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect\\_repellent.htm](http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect_repellent.htm)

Environmental Protection Agency: <http://cfpub.epa.gov/oppref/insect/>