

BACKGROUND

During most of the 20th Century, West Nile Virus (WNV) was usually found in Africa, West Asia, and the Middle East. However, in the summer of 1999, WNV was detected in New York City and over the next four years it spread throughout North America. Since 2004, a continent-wide WNV epidemic flares up in the summer and continues into the fall as infected mosquitoes spread the virus from birds to horses, humans and other animals.

WHO DOES THE ISSUE IMPACT?

Everyone! WNV is spread to people through the bite of an infected mosquito.

COMPLICATIONS

Severe illness can occur in people of any age; however, people over 60 years of age are at greater risk. People with certain medical conditions, such as cancer, diabetes, hypertension, kidney disease, and people who have received organ transplants, are also at greater risk. About one out of ten people who develop severe illness affecting the central nervous system die.

SIGNS AND SYMPTOMS

- About one in 150 people infected with WNV will develop severe illness. Associated symptoms can include blindness, disorientation, coma, convulsions, headache, high fever, muscle weakness, neck stiffness, numbness, paralysis, stupor, and tremors. These symptoms may last for several weeks, and the neurological effects may be permanent.
- Up to 20% of WNV infected people will have symptoms such as fever, head and body aches, nausea, vomiting, and sometimes swollen lymph glands or skin rash on the chest, stomach and back. Symptoms can last from a few days to several weeks.
- Approximately 80% of people who are infected with WNV will not show any symptoms.

CAUSES AND TRANSMISSION

WNV is most commonly spread to people by the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds. Infected mosquitoes then spread WNV to people and other animals by biting them. Although rare, WNV has also been transmitted by exposure in a laboratory setting; blood transfusion and organ transplant; and mother to baby during pregnancy, delivery, or breastfeeding.

TESTS AND DIAGNOSIS

For people who develop symptoms, their healthcare provider can order tests to look for WNV or WNV-specific IgM antibodies depending on when symptoms started. Laboratory diagnosis is generally accomplished with antibody testing.

TREATMENTS

Unfortunately, no vaccine or specific antiviral treatments are available for WNV infection. Over-the-counter pain relievers can be used to reduce fever and relieve some symptoms but in severe cases, patients often need to be hospitalized to receive supportive treatment, such as intravenous fluids, pain medication, and nursing care.

WHAT CAN YOU DO?

To prevent WNV:

- Use EPA approved insect repellent

- Wear long-sleeved shirts and long pants to cover your skin
- Treat your clothing and gear with an insecticide
- Take steps to control mosquitoes indoors and outdoors by:
 - Maintaining good screens on windows and doors to keep infected mosquitoes out.
 - Regularly emptying any outside containers, or drill drainage holes in their bottoms.
 - Turning over plastic wading pools and wheelbarrows when not in use.
 - Cleaning clogged roof gutters that may allow the pooling of rain water.
 - Not allowing water to stagnate in bird baths or ornamental ponds.
 - Cleaning and chlorinating swimming pools and removing standing water from pool covers.
 - Using landscaping to eliminate standing water that routinely collects on your property.
 - Removing discarded tires from your property as they make an excellent larva habitat.
 - Using *Bacillus thuringiensis israelensis* (Bti) or *Bacillus sphaericus* (Bsp) tablets for standing water that can't be eliminated; available at any lawn and garden store. The bacteria will infect and kill any mosquito larvae present, but the water will remain safe for people, pets, aquatic life and plants.

If you or a family member might have WNV:

- Talk with your health care provider immediately

RESOURCES FOR MORE INFORMATION

PA DOH Vectorborne Disease webpage: [Vectorborne Diseases](#)

PA West Nile Virus Control Program: <https://gis.dep.pa.gov/WNV/index.html>

CDC WNV website: <https://www.cdc.gov/westnile/index.html>

This fact sheet provides general information. Please contact your physician for specific clinical information.

If you have any questions, contact us at 1-877-PA-HEALTH.