

# West Nile Virus in Pennsylvania

## VECTOR MANAGEMENT

Pennsylvania  
Department of  
Environmental Protection



### What is West Nile Virus?

West Nile virus (WNV) is the leading cause of mosquito-borne illness in the United States. It is most commonly passed to people from the bite of infected mosquitoes. WNV was first discovered in the West Nile region of Uganda in 1937, introduced into the United States in 1999, detected in Pennsylvania in 2000, and was found in all 48 continental states by 2012. People become sick every year in Pennsylvania with WNV. The best way to protect yourself against WNV is to prevent mosquito bites.

### How is WNV Transmitted?

West Nile virus is usually spread to people by infected mosquitoes. Person to person transmission does not occur, however, the virus can be passed from blood transfusions, organ transplants, and rare mother to baby. In nature, WNV circulates between *Culex* species mosquitoes and birds. Mosquitoes become infective after feeding on an infected bird. Mosquitoes then spread WNV by biting people, horses, and other mammals which are considered “incidental hosts.” This means that people, horses, and other mammals cannot pass the virus to other biting mosquitoes.

### What are WNV Symptoms?

About 1 in 5 infected people develop febrile illness. Symptoms such as fever, rash, vomiting or diarrhea, head and body aches, and joint pain are common. Most people make a complete recovery, however lethargy can persist for weeks or months.

About 1 in 150 infected people develop a severe, sometimes fatal illness. West Nile virus can cause severe neuroinvasive disease, including infection of the brain (encephalitis) or the membranes around the brain (meningitis). Overall, about 10% of cases that develop neuroinvasive disease end in fatality.

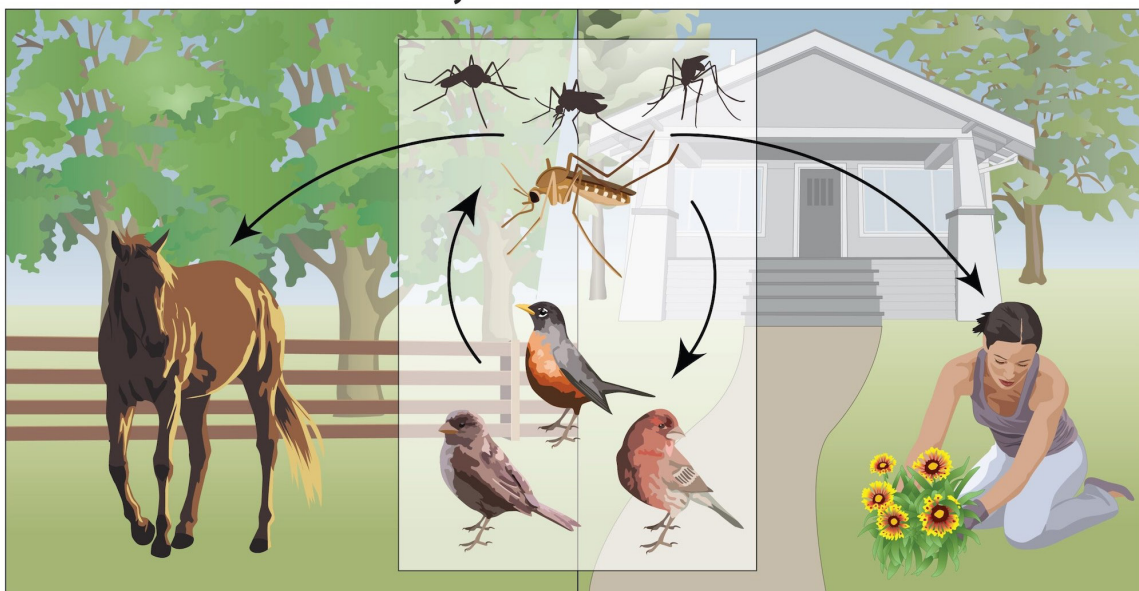
WNV cases occur when mosquitoes are active, spring through fall.

### How is WNV Diagnosed and Treated?

Reach out to your healthcare provider if you or a family member might have WNV. After evaluating signs and symptoms, your doctor can perform laboratory testing.

There is no cure or vaccine, nor do antibiotics have any effect on WNV. Treatments such as rest, fluid intake, and over-the-counter pain medications can be used to treat symptoms. Patients with severe symptoms can be hospitalized to receive support for hydration, respiratory support, and nursing care.

### West Nile Virus Transmission Cycle



CS315321

Centers for Disease Control and Prevention

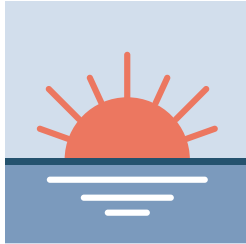
# MOSQUITO BITE PREVENTION

REDUCE  
YOUR CHANCES  
OF GETTING BITTEN  
AND **PREVENT DISEASE**

## VECTOR MANAGEMENT



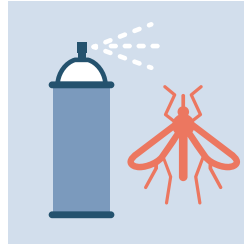
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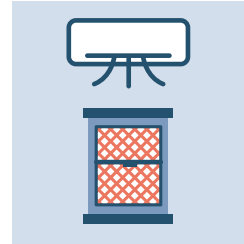
AVOID GOING OUT  
AT DUSK/DAWN  
WHEN MOSQUITOES  
ARE MORE ACTIVE



WEAR  
PROTECTIVE CLOTHES



USE INSECT REPELLENT



STAY IN A PLACE  
WITH AIR CONDITIONING  
AND WINDOW SCREENS



REMOVE STANDING  
WATER AT HOME

SEAL ALL  
WATER DEPOSITS



FIX  
WATER LEAKS



PROTECT AND  
CLEAN POOLS  
AND PONDS



CLEAN BIRDBATH  
ONCE A WEEK



CLEAN RAIN GUTTER



INSTALL SCREENS  
ON WINDOWS  
AND DOORS



DRAIN STANDING  
WATER IN BUCKETS,  
TIRES, FLOWER POTS



KEEP GRASS  
SHORT



### PROTECT YOUR HOME AGAINST MOSQUITOES

KEEP YOUR ENVIRONMENT  
SAFE AND CLEAN

### What Else is Being Done for Protection Against Mosquitoes?

The Pennsylvania Department of Environmental Protection and participating counties implement various tools and strategies to control mosquito populations. This reduces the transmission of mosquito-borne disease and allows the public to enjoy outdoor spaces. Our integrated pest management plan (IPM) combines mosquito surveillance, public outreach and education, source reduction, and larval and adult control. Please visit our website where you can learn more about mosquito control in your area and see what efforts are made to combat other mosquito-borne diseases such as Jamestown Canyon virus. You can also find your county contact should you have any mosquito concerns.

The best protection against mosquito-borne disease is mosquito bite prevention. Steps you can take to avoid mosquito bites includes wearing long sleeves and pants, using an EPA approved repellent containing DEET, picaridin, or oil of lemon eucalyptus, and limiting outdoor activity during dusk and dawn when mosquitoes are most active.



Please visit our website at  
[www.dep.pa.gov/westnile](http://www.dep.pa.gov/westnile)

