

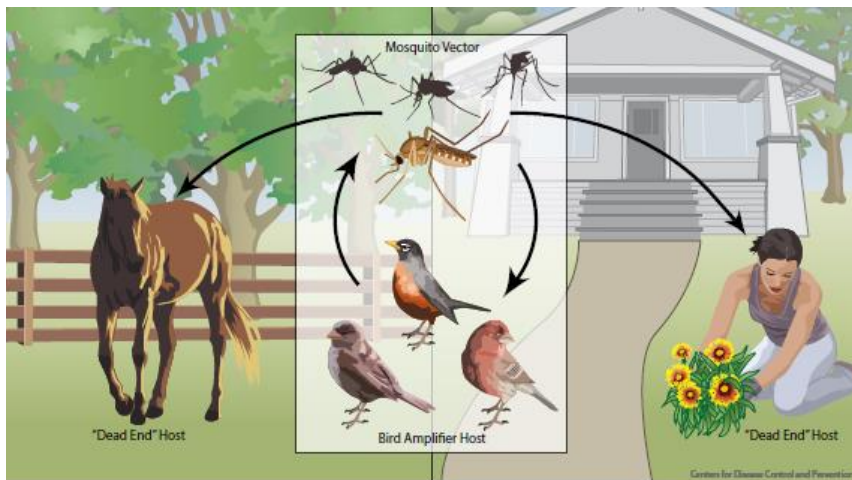
West Nile Virus (WNV)

What is West Nile Virus?

West Nile virus is a mosquito-borne virus that can cause fever, encephalitis (inflammation of the brain) or meningitis (inflammation of the lining of the brain and spinal cord).

West Nile virus transmission has been documented in Europe, Middle East, Africa, parts of Asia, and Australia. It was first detected in the United States in 1999 and has since spread across the continental United States and Canada.

How is it Spread?



Most people get infected with West Nile virus by the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds. Infected mosquitoes can then spread the virus to humans and other animals.

In a very small number of cases, West Nile virus has been spread through blood transfusions, organ transplants, and from mother to baby during pregnancy, delivery, or breastfeeding.

Signs and Symptoms

The risk for developing a serious West Nile virus-related illness after being infected is extremely small – less than 1 percent of people who are infected become severely ill. And most people who do not become sick recover fully. A person is more likely to develop a severe or fatal infection based on:

- **Age** – Adults older than age 50
- **Health** – Those who have a weakened immune system, or persons with underlying health conditions

No symptoms in most people – Most people (70-80%) who become infected with West Nile virus do not develop any symptoms.

Mild flu-like symptoms – About 20% of people who are infected will develop a fever with other symptoms such as fatigue, headache, body aches, swollen lymph nodes, and/or body rash. The majority of people with this type of West Nile virus disease recover completely; however, fatigue and weakness can last for weeks or months.

Severe symptoms in a few people – Less than 1% of people who are infected will develop a serious neurologic illness such as encephalitis, meningitis, or meningoencephalitis (inflammation of brain and surrounding membrane).

The symptoms of neurologic illness can include headache, high fever, neck stiffness, disorientation, coma, tremors, seizures, paralysis, muscle weakness and/or death. Symptoms may last several weeks and neurological effects may last a lifetime.

Diagnosis

A doctor may suspect West Nile virus infection based on clinical symptoms, travel history, age, and medical history. If infected, a blood test may show a rising level of antibodies to the West Nile virus. Antibodies are immune system proteins that attack foreign substances, such as viruses. These antibodies can be measured in blood serum or cerebral spinal fluid (the fluid surrounding the brain and spinal cord). Cerebral spinal fluid is required to confirm West Nile virus.

Treatment

There is no specific treatment for West Nile virus, only supportive care. Care is aimed at improving the symptoms such as lowering fever, avoiding dehydration, decreasing brain swelling, or dealing with a loss of automatic breathing activity.

Mild symptoms usually resolve in a few days. In severe cases, patients often need to be hospitalized to receive supportive treatment such as intravenous fluids, airway management, and nursing care.

Prevention

There is no vaccine available to prevent West Nile virus. The most effective way to avoid West Nile Virus disease is to prevent mosquito bites. You can do this by:

- Wear long-sleeved shirts and long pants while outdoors.
- Stay in places with air conditioning and window and door screens to keep mosquitos out.
- Take steps to control mosquitos inside and outside the home.
- Treat clothing and gear with permethrin or buy pre-treated items.
- Use [Environmental Protection Agency \(EPA\) registered](#) insect repellants. Always follow the product label instructions.
- Mosquito netting can be used to cover babies younger than two months of age in carriers, strollers, or cribs to protect them from mosquito bites.
- Sleep under a mosquito bed net if air conditioned or screened rooms are not available or if sleeping outdoors.
- Help reduce the number of mosquitoes around your home. Empty standing water from containers such as flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires, birdbaths, etc...



For more sources of information on this topic visit:

ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES www.michigan.gov/mdhhs

CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov

THE MAYO CLINIC www.mayoclinic.org