

## PUBLIC HEALTH FACT SHEET

# West Nile Virus

*What you need to know*

### What is West Nile virus?

West Nile virus is a viral infection that can infect humans, birds, mosquitoes, horses and other mammals. Humans can become infected through the bite of a mosquito. Most people infected with West Nile virus show no symptoms, but some infections can result in serious illness and even death.

### What are the symptoms of West Nile Virus?

If symptoms develop, they usually appear 3 to 14 days after the bite of an infected mosquito.

- **Serious Symptoms in a Few People.** Symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. These symptoms may last several weeks, and neurological effects may be permanent. More severe illness can include encephalitis (inflammation of the brain) or meningitis (inflammation of the tissues that cover the brain and spinal cord) and in the most severe cases, death.
- **Milder Symptoms in Some People.** Up to 20% of the people who become infected display symptoms such as fever, headache, body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms can last for as short as a few days, though even healthy people have been sick for several weeks.
- **No Symptoms in Most People.** Most people (80%) infected with WNV do not have any symptoms.

### How soon after exposure do symptoms appear?

Symptoms usually appear 3 to 15 days after exposure.

### What can I do to prevent West Nile Virus?

The easiest and best way to avoid West Nile virus is to prevent mosquito bites.

- When you are outdoors, use insect repellent containing an EPA-registered active ingredient. Follow the directions on the package.
- Many mosquitoes are most active at dusk and dawn. Be sure to use insect repellent and wear long sleeves and pants at these times or consider staying indoors during these hours.
- Make sure you have good screens on your windows and doors to keep mosquitoes out.
- Get rid of mosquito breeding sites by emptying standing water from flower pots, buckets and barrels. Change the water in pet dishes and replace the water in bird baths weekly. Drill holes in tire swings so water drains out. Keep children's wading pools empty and on their sides when they aren't being used.
- Clean vegetation and debris from edges of ponds.

## **When should a patient be tested for West Nile Virus?**

A diagnosis of West Nile virus should be considered in patients with a potential exposure and a compatible clinical presentation. Consider a diagnosis if a person has been potentially exposed to mosquitoes and presents with fever, headache and myalgia, with or without gastrointestinal symptoms, and especially if neck stiffness and/or a change in mental status and/or weakness is present. Those who live in or have traveled to areas with West Nile virus activity are at risk and those older than 50 years of age have the highest risk of severe disease.

## **How is West Nile virus diagnosed?**

Testing for IgM antibodies in the blood and cerebrospinal fluid is the most common test done for West Nile. Serum should be collected within 8 to 14 days of illness onset or CSF should be collected within 8 days of illness onset. IgM antibody does not cross the blood-brain barrier, so the presence of IgM in CSF strongly suggests a central nervous system infection.

## **How Is WNV Infection Treated?**

There is no specific treatment for WNV infection. In cases with milder symptoms, people experience symptoms such as fever and aches that pass on their own, although even healthy people have become sick for several weeks. In more severe cases, people usually need to go to the hospital where they can receive supportive treatment including intravenous fluids, help with breathing and nursing care.

## **How do I report West Nile virus?**

Any case of suspected or confirmed West Nile virus needs to be reported to the Independence Health Department within 3 days of suspicion or knowledge.

**For more information, call (816) 325-7204**

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