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## What is West Nile Virus?

**W**est Nile virus is an arthropod-borne virus (arbovirus), primarily spread by infected mosquitoes. The virus can cause flu-like illness, encephalitis (inflammation of the brain) or meningitis (inflammation of the lining of the brain and spinal cord).

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

### Who is at risk?

Anyone living in or visiting an area where West Nile virus is present in mosquitoes can get infected. It has been detected in every U.S. state except Alaska. The risk of infection is highest during the summer months, especially for people who work outside or participate in outdoor activities (because of greater exposure to mosquitoes). People over 50 years of age and individuals with compromised immune systems have the highest risk of developing a severe illness.

### FOR MORE INFORMATION

Centers for Disease Control and Prevention  
[www.cdc.gov/westnile](http://www.cdc.gov/westnile)

Nebraska Department of Health & Human Services  
 West Nile Surveillance Program  
<http://dhhs.ne.gov/wnv>



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**Fight the Bite**  
 What you should know

## How is it transmitted?

West Nile virus is most commonly transmitted to humans by mosquitoes.

Although rare, there are a few documented cases in which West Nile infections were transmitted via:

- ▶ Blood transfusions
- ▶ Organ transplants
- ▶ Exposure in a laboratory setting
- ▶ From mother to baby during pregnancy, delivery, or breastfeeding

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## West Nile virus is NOT transmitted:

- ▶ From person-to-person or from animal-to-person through casual contact
- ▶ From handling live or dead infected birds (you should still avoid bare-handed contact when handling any dead animal)
- ▶ Through consuming infected birds or animals (however, you should always follow procedures for fully cooking meat from either birds or mammals)

## What are the symptoms?

No symptoms in 70-80% of people infected with West Nile virus.

Mild, flu-like symptoms in about 20% of infected people.

- ▶ fever
- ▶ headache
- ▶ body aches
- ▶ joint pains
- ▶ vomiting
- ▶ diarrhea
- ▶ rash



Most people with these symptoms recover completely, but fatigue and weakness can last for weeks or months.

Severe symptoms in less than 1% of people who are infected, due to the development of encephalitis or meningitis (inflammation of the brain or surrounding tissues).

- ▶ severe headache
- ▶ high fever
- ▶ neck stiffness
- ▶ disorientation
- ▶ coma
- ▶ tremors
- ▶ seizures
- ▶ paralysis

Recovery from severe disease may take several weeks or months. Some neurologic effects may be permanent. About 10% of people who develop neurologic infection due to West Nile virus will die.

If you are experiencing any of these symptoms, please seek immediate medical attention.

## How can people reduce the chance of getting infected?

The most effective way to avoid West Nile virus is to prevent mosquito bites.

## Keep mosquitoes away from your body:

- ▶ When outdoors, use insect repellents containing at least one of the following:
  - ▶ DEET
  - ▶ Picaridin
  - ▶ IR3535
  - ▶ Oil of lemon eucalyptus
  - ▶ Para-menthane-diol
- ▶ Wear shoes, socks, long sleeve shirts and pants when mosquitoes are most active, and anytime you are outdoors for a prolonged period of time.

Electromagnetic/ultrasound devices and Vitamin B are NOT effective mosquito repellents

## Keep mosquitoes away from your home:

- ▶ Install/repair window & door screens
- ▶ If possible, use an air conditioning system, instead of opening windows
- ▶ Outside your home, empty standing water from containers such as gutters, buckets, pool covers, pet dishes, discarded tires, flowerpots & birdbaths
- ▶ Aerate ponds or stock them with fish
- ▶ Clean and chlorinate swimming pools