### What is West Nile virus?

West Nile virus is a mosquito-borne virus that has been documented in Europe and the Middle East, Africa, India, parts of Asia, and Australia.

### West Nile virus in the U.S. and Iowa

The virus was first identified in the West Nile district of Uganda in 1937. It was first reported in the United States in 1999, when 62 cases and seven deaths from West Nile virus infection were reported in the New York City area. Since 1999, West Nile virus has spread across the continental United States. By 2014, West Nile virus had been found in all lower 48 states (not Hawaii or Alaska).

The virus was identified in a dead crow in the eastern part of Iowa in September 2001. Human cases in Iowa have been reported every year since 2002.

### Who is at risk?

While the virus mainly infects mosquitoes and birds, mosquitoes can spread the virus to people and other animals, like horses.

Anyone living in an area where West Nile virus is present in mosquitoes, such as lowa, can become infected.

The risk of infection is highest for people who work outside or participate in outdoor activities, and those who do not take measures to protect themselves.



# FOR MORE INFORMATION

To learn more about West Nile virus, visit the Center for Acute Disease Epidemiology West Nile virus web site at www.idph.iowa.gov/cade/disease-information/west-nile-virus

For additional information on West Nile virus, visit

Centers for Disease Control and Prevention

www.cdc.gov/westnile/index.html

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## How is West Nile virus spread?

People can be infected with West Nile virus by the bite of an infected mosquito. Mosquitoes become infected after they feed on infected birds, and then they can spread the virus to humans and other animals.

West Nile virus cannot be spread from one person to another by contact such as kissing, touching, or caring for an infected person.

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. Iowa's blood, used for transfusions are tested for West Nile virus.

#### What is the treatment for West Nile virus?

There is no medicine to treat, or vaccine to prevent West Nile virus infection in humans. Over-the-counter pain relievers can be used to reduce fever and relieve some symptoms.

People with milder symptoms typically recover on their own, although some symptoms may last for several weeks.

In more severe cases, patients often need to be hospitalized to receive supportive treatment, such as intravenous fluids, pain medication, and nursing care.



## Signs and Symptoms

#### No symptoms in most people.

 Approximately 70-80 percent of people who are infected with West Nile virus do not develop any symptoms.

#### Febrile illness in some people.

- About one in five people who are infected will develop a fever.
- Other symptoms can include headache, body aches, joint pains, vomiting, diarrhea, or rash.
- Most people with mild West Nile virus disease recover completely, but fatigue and weakness can last for weeks or months.

#### Severe symptoms in a few people.

- Less than 1 percent of human infections, particularly in people over age 50, will develop a serious neurologic illness such as encephalitis or meningitis (inflammation of the brain or surrounding tissues).
- People with certain medical conditions, such as cancer, diabetes, hypertension and kidney disease are at greater risk for serious illness.
- These symptoms of neurologic illness can include headache, high fever, neck stiffness, coma, disorientation, tremors, seizures, or paralysis.
- Recovery from severe disease may take several weeks or months. Some neurologic effects may be permanent.
- About 10 percent of people who develop serious neurologic symptoms due to West Nile virus die.



# Things you can do

- Wear a mosquito repellent containing DEET, permethrin, picaridin, IR3535, or oil of lemon eucalyptus, especially during peak biting hours from dusk to dawn.
- Wear light colored, long-sleeved shirts and pants.
- Eliminate standing water where mosquitoes breed, such as old tires in the backyard.
- Change water in birdbaths and pet bowls every three to four days to stop mosquitoes from breeding.
- Turn over items in your yard where rainwater can collect, such as kiddie pools.
- Windows and doors should have tight-fitting screens.
- Keep roof gutters clean and in good repair.
- Repair leaky outdoor faucets, air conditioners, and hoses which may increase standing water around your home where mosquitoes can breed.