

What Is West Nile Virus?

A virus is an extremely small organism that causes diseases in humans, animals, and plants. West Nile Virus (WNV) can lead to serious illness for some people and animals. The virus was first seen in North America in 1999. Experts believe that WNV is seasonal since most cases are diagnosed in late summer and early fall.

How Is West Nile Virus Spread?

The WNV is spread to people and animals through the bites of infected mosquitoes. The mosquitoes become infected when they feed on infected birds. The birds become infected by the bites of infected mosquitoes (Figure 1). This is how the cycle continues.

The Centers for Disease Control and Prevention (CDC) reports a very small number of cases in which the virus spread from human-to-human. These cases are not typical. Generally, these occurrences were from blood transfusions, organ transplants, and very limited transmissions from mother to child during pregnancy or breastfeeding.

WNV is **not transmitted** from person to person through casual contact. Touching or kissing an infected person will not spread the virus.

WNV is **not transmitted** from animal to animal (such as horse to horse), animal to human, or human to animal.

Is West Nile Virus Found in New Mexico?

Yes. Cases of WNV in New Mexico have occurred every year since 2003. Reported WNV activity in NM during 2003 to 2011 includes:



Figure 1. The southern house mosquito (*Culex quinquefasciatus*) can harbor West Nile Virus. (Photo by Jim Gathany, Centers for Disease Control)

- Nearly 500 cases of WNV in humans. The largest number of cases was 209 in 2003; the fewest was 4 in 2011.
- Just under 500 cases of WNV in horses. The largest number of cases was 419 in 2003; the fewest were 1 in 2010 and 2 in 2011.
- Other animals that tested positive included llamas/ alpacas, canines, bovines, pigs/hogs, and chickens.
- Dead birds might be a sign of WNV infection. Crows and blue jays are related and are especially susceptible to WNV. However, any dead bird (ravens, magpies, scrub jays, Steller's jays, pinyon jays) could indicate presence of the virus.

Caution! If you find a dead bird, don't handle the body with your bare hands. Contact your local health

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department for instructions on reporting and disposing of the body. You may be told to dispose of the bird after your report is logged.

How Sick Can a Person Get When Infected With West Nile Virus?

For some people, the WNV infection produces no symptoms or serious illness. In others, it can cause health problems and sometimes death. There is no way to know ahead of time whether or not you'll get sick when you are infected.

Serious illness can occur in people of any age. Those at the highest risk for getting severely ill when infected with WNV include people over age 50 and those with compromised immune systems (for example, transplant patients). Typically, symptoms appear between 3 and 14 days after being bitten.

Among people infected with WNV:

- Most (about 4 out of every 5) do not develop any symptoms.
- Some (about 2 out of every 10) will develop West Nile fever. Symptoms include fever, headache, tiredness, and body aches. Occasionally, a skin rash on the chest, stomach, and back appears, along with swollen lymph glands. The illness can be as short as a few days or can last several weeks.
- Very few people (about 1 out of every 150) will develop West Nile encephalitis or meningitis. Symptoms include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis. These symptoms typically last a few weeks, but the WNV effect on the nervous system (including the brain) can be permanent.

How Is West Nile Virus Treated?

There is no specific treatment for WNV infection. Although milder symptoms may continue over several weeks, people usually get well on their own. For more severe cases, hospitalization may be needed.

How Sick Can an Animal Get When Infected With West Nile Virus?

Primarily, only horses get sick when infected with WNV. However, many infected horses do not develop any illness or symptoms. Of those that do become ill, about 3 out of every 10 die or need to be euthanized.

Other livestock and poultry can become infected with WNV, but do not commonly get sick.

Although dogs or cats can become infected with WNV, clinical signs rarely appear.

How Can West Nile Virus Be Prevented?

Prevention measures consist of community-based mosquito control programs that are able to reduce populations of disease-causing mosquitoes, as well as personal protection measures to reduce the likelihood of being bitten by infected mosquitoes.

The easiest and best way to avoid WNV is to prevent mosquito bites.

- Use insect repellent containing an EPA-registered active ingredient, such as DEET. Use it properly and follow the directions on the label. Other active ingredients to look for include picaridin or icaridin, oil of lemon eucalyptus, and IR3535.
- Many mosquitoes are most active at dawn and dusk. Limit time outside—or stay inside—during peak mosquito-biting hours.
- Wear shoes, socks, long pants, and loose-fitting, long-sleeved shirts when outdoors.
- Get rid of mosquito breeding sites by eliminating standing water. Look for things like unused farm equipment, flower pots, gutters, barrels, and buckets. Change the water in pet dishes and replace the water in watering troughs and bird baths weekly. Drill holes in tire swings so water drains out. Keep children's wading pools empty and place them on their sides or upside down when not in use.
- Repair or install good screens on windows and doors around the home to keep mosquitoes out.

Protection for horses:

- Vaccinate your horses with the Fort Dodge Animal Health West Nile Virus Vaccine, which is approved by the U.S. Department of Agriculture. Contact your veterinarian about the initial vaccination and annual booster.
- There is no treatment for WNV once a horse becomes infected.

Protection for pets:

- Keep pets indoors during peak mosquito-biting hours (dawn and dusk).
- Prevent pets from coming into contact with dead birds that might be infected.
- Use only veterinarian-approved mosquito repellent on your pet. **Do not** use products containing DEET on pets.
- Consult your veterinarian for additional preventive precautions.

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