



West Nile Virus Fact Sheet

Frequently Asked Questions

What is West Nile virus (WNV)?

West Nile virus (WNV) is a virus that is spread to animals and humans via mosquitoes.

When did West Nile virus first appear in the United States?

The first human and animal cases of West Nile virus appeared in New York in 1999.

Where did the West Nile virus come from?

The WNV was first identified in a woman residing in Uganda in 1937ⁱ. Since that time outbreaks associated with this virus have occurred in Africa, the Middle East and Europe. The most recent outbreaks outside this country occurred in Romania in 1996 and Israel in 2000.

How did the West Nile virus get here?

We do not know specifically how the WNV arrived in this country, but most likely it was brought into the United States by an infected bird or mosquito. Once in the Western Hemisphere, migratory birds have transported the WNV to new areas along their migratory routes. (WNV is also likely transported in the process of international and regional trade and movement of goods, in containers such as wet, used tires--carrying infected mosquitoes)ⁱⁱ.

Do animals become infected with WNV?

The WNV has been identified in over 160 species of birds. In some birds, such as crows and bluejays, the WNV causes significant disease and death. However other birds, including chickens, carry the virus but do not become symptomatic. *The intensity of the WNV activity throughout the United States will likely lead to a significant decrease in bird populations in the next few years.*

Horses have also been negatively impacted by the WNV. Other animals, including dogs, raccoons, alligators, and bears have also been infected with the WNV. It is important to note that the State Board of Animal Health stresses that while the risk of WNV for domestic animals is low, pet owners should work with their veterinarian to protect their pets from mosquito exposureⁱⁱⁱ. Because all animals that contract WNV do not necessarily die, it is **not recommended** that animals or pets infected with the WNV be euthanized. There is currently a vaccine that can be used to immunize horses against the WNV.

For a full list of animals that have tested positive for the WNV, please check the following website: http://www.nwhc.usgs.gov/research/west_nile/wnvaffected.html

How is the West Nile virus spread to people?

A mosquito becomes infected by biting a bird infected with the WNV. The mosquito does not die when infected and the WNV is stored in the salivary glands of mosquito. When the female mosquito bites a human or other animal, she then injects the WNV when she obtains her blood meal.

Surveillance data suggests WNV is transmitted from human to human through a blood transfusion or transplanted organs obtained from an infected person. *However, WNV is not spread via person-to-person contact such as touching, coughing, kissing, or caring for someone who is infected.*

Are there other ways the virus can be spread?

Yes. In 2002, five new modes of transmission were identified: blood transfusion, organ transplant, breastfeeding, intrauterine, and occupational.

Does this mean I should not donate or receive blood?

No. The risk of transmission of the WNV via blood transfusion is extremely small compared to the benefit gained by receiving a blood transfusion when recommended by a doctor. The Food and Drug Administration are currently working on a screening test to identify WNV in donated blood products.

What symptoms would I have if I were infected with West Nile virus?

The symptoms and severity of the illness caused by WNV occur on a continuum, from a febrile viral illness to overt encephalitis. Many people who become infected will have symptoms associated with a viral syndrome: fever (usually over 101.5 degrees, headache, muscle aches, fatigue, and/or a rash. Another group of people will experience a meningitis-type illness with all of the above symptoms including significant neck pain and sensitivity to light. And finally, a smaller percentage of people will have frank encephalitis, which is inflammation of the brain. These unfortunate people will have more pronounced neurological symptoms, including confusion, paralysis, and even coma, in addition to the above symptoms. Analysis of the large number of cases of WNV diagnosed in the United States last year, reveals more people with the more severe forms of the disease (meningitis/encephalitis) than previously predicted based on data from prior years.

Is there any treatment for WNV?

Not currently. However studies are being conducted to evaluate the effectiveness of medications for patients diagnosed with encephalitis, the severest form of the disease.

If there is no treatment, why should we test for the disease?

Although there is currently no recommended treatment for WNV, by diagnosing patients that have the disease, we can perform an environmental survey in the surrounding area and identify and remove mosquito breeding sources.

Are there a lot more cases of West Nile virus than we know of?

Probably. Studies suggest that most people who have been infected with the WNV will have a mild illness, and most likely will not visit a physician to be tested^{iv}. However, every case of WNV, even mild cases, increases our community's immunity to this new disease.

Why did Allen County have so many cases?

Surveillance data from birds and mosquito samples indicate that the West Nile virus is well-established in the Midwest. One probable explanation for Allen County's increased case rate for WNV is that the medical community has been very diligent in obtaining specimens on patients with symptoms suggestive of WNV. Again, this allows us to identify potentially high-risk areas for people who live in the same neighborhood.

Where can I get more information about WNV?

The Centers for Disease Control website has a lot of useful information about WNV. Their web address is www.cdc.gov or you can visit the Department of Health website which will then route you to the CDC website. That web address is www.fw-ac-deptofhealth.com

ⁱ Chowers MV, Lang, R, Ben-David D, et al. Clinical Characteristics of the West Nile Fever Outbreak, Israel 2000. Emerg Infect Dis2001;7.

ⁱⁱ Environmental Risk Analysis Program. Cornell University Center for the Environment. What's Going on with the West Nile Virus. <http://www.cfe.cornell.edu/erap/WNV/default.cfm#OtherMammals>

ⁱⁱⁱ West Nile Update; Dog Owners Should Not Worry <http://www.in.gov/serv/presscal?PF=aiin&Clist=17&Elist=59722>

^{iv} West Nile Virus Surveillance and Control. New York City Department of Health. City Health Information. 2001;20:1-7.