

Avoiding Mosquito Bites

The best way to reduce your chances of being infected with WNV is to reduce your exposure to mosquitoes and their bites. Some things you can do include:

- draining all sources of standing water on your property
- making sure your door and window screens fit tightly and are free of holes and tears
- wearing long sleeved shirts, long pants and shoes with socks when outside
- placing mosquito netting over your infant carrier or crib when outside
- applying a mosquito repellent and avoiding outside activity at dawn and dusk when mosquitoes are active.

Some commonly neglected or overlooked breeding sources for mosquitoes include:

Plugged roof gutters	Tires	Dirty pools and spas
Trash cans	Uncovered boats	Flooded basements
Lawn sculpture or ornaments	Pet water dishes	Bird baths
Plant pots	Hollowed out areas in trees	Animal watering troughs
Ornamental ponds	Landscape lighters	Uncovered dumpsters
Leaky swamp coolers	Uncapped metal posts	Miscellaneous containers

Don't be a Mosquito Breeder

Any breeding sources holding water for more than a few days can produce mosquitoes. If you do find a breeding source simply dump or flush the water out regularly. Even small amounts of standing water can provide breeding habitat for large numbers of mosquitoes. Let your neighbors know too. If you need help, call your local mosquito control district or health department for their recommendation.

Some truths about mosquitoes

- Mosquitoes can breed in stagnant water that lasts more than 4 days.
- Mosquitoes generally do avoid people wearing mosquito repellent. Especially effective are repellents containing the active ingredient D.E.E.T.
- Adult mosquitoes like to hide or "day rest" in heavy vegetation during the daytime. Later, in the evening, they come out to feed and obtain a bloodmeal. Reducing dense vegetation around your home may reduce the number of mosquitoes around your home.
- Mosquitoes bite the most at dusk and dawn.
- Mosquitoes have a more difficult time biting through loose-fitting clothing.
- Certain scents are attractive to mosquitoes. Some perfumes may draw mosquitoes to you. Body sweat and bare, smelly feet are particularly irresistible to them.

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West Nile Virus



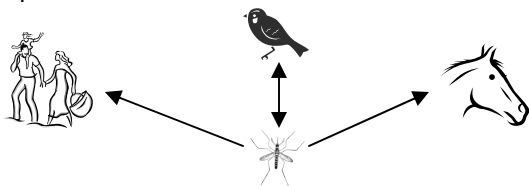
History

West Nile Virus (WNV) is a disease transmitted primarily by mosquitoes. It was first isolated in the West Nile District of Uganda in 1937. The virus has caused disease and death in parts of Asia, eastern Europe, Africa and the Middle East for many years. It had not been known to exist in the United States until 1999. The virus was first detected in New York when birds, especially crows, began dying in unusually large numbers. The *Culex pipiens* mosquito was the primary vector, but WNV is transmitted by other mosquito species as well. Recently, 36 different mosquito species from 10 genera have been identified as potential vectors.



Amplification

Mosquitoes become infected after feeding on a bird that has virus in its blood. The virus then lives and amplifies in the mosquito's body. When that mosquito takes a bloodmeal from another bird, the virus is transmitted to another host. WNV is transmitted to people and animals through the bite of an infected mosquito.



Dead Birds

In 2000, California began a dead bird surveillance program to help detect WNV presence. Residents of California are encouraged to telephone toll-free, **1-877-WNV-BIRD** to report dead birds. A telephone operator will collect and screen your information. Arrangements, when warranted, will be made for a trained employee to remove the bird and send it out for testing. (*Never try to pick up or move a dead bird and keep children and pets away as live virus may be present.*) Large numbers of dead birds and WNV positive birds can precede WNV activity in humans.

Transmission

Occasionally, an infectious mosquito instead of feeding on a bird, feeds on a human or horse. Humans and horses are considered accidental or dead end hosts for WNV, because they do not significantly help to spread the virus. Mosquito abundance and activity is at its highest between May and October. At the same time, virus abundance is on the increase, making chances for disease transmission more likely during this period. People with a higher risk of infection include the elderly, those with a weakened immune system and those with increased exposure to mosquitoes. At this time no vaccine for humans is available.

An infected human will not expose others to the disease. Human to human transmission does not occur. However, it is possible that infected humans can pass the virus to breast-fed infants, unborn fetuses and blood and organ recipients. Donated blood is screened for West Nile Virus. It may also be possible to acquire the virus by contacting the fecal material of an infected bird or while gutting or cleaning an infected game bird or other animal with unprotected hands.

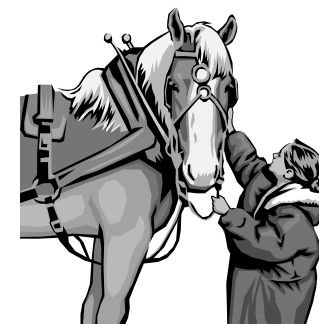
Symptoms

Most people who become infected with WNV will have no symptoms. About 20% will exhibit symptoms and most will be mild. About 1 in 150 people will have much more serious symptoms. For this reason the disease has been divided into 2 clinical categories: West Nile Fever and West Nile Neuroinvasive Disease. In West Nile Fever, symptoms surface 3 to 15 days after the infected bite and will likely include fever, headache, nausea, body aches, mild skin rash and swollen lymph nodes. West Nile Neuroinvasive Disease causes a serious medical condition in which the brain and membranes covering the brain and spinal cord become inflamed. This may cause the central nervous system to become severely impaired. Symptoms of West Nile Neuroinvasive Disease can include severe headache, high fever, stiff neck, disorientation, stupor, convulsion, paralysis, memory loss, coma and rarely, death. The chances of becoming severely ill from any one mosquito bite are small. If you believe you have contracted West Nile Virus contact your physician. A blood test specific for WNV is the only way to tell if you have the virus.

WNV and Horses

Horses are another concern as they are susceptible to WNV. The disease does not seem to be specific to, or more pronounced, in any particular breed of horse, but symptoms seem to be more severe in older horses. Nationally, equine death rates have been about 30%.

Equine WNV vaccines are available from your local veterinarian and recently from other suppliers. Regardless of where you obtain the vaccine, **always** consult with your veterinarian before administering it. In some cases, vaccine has caused ill effects. Your vet can make specific recommendations regarding currently unvaccinated horses, pregnant mares, or newborns and foals. Interstate and international competition horses may face restrictions on where they may travel if they have high titers to WNV, which can be caused by a vaccination. Detailed vaccination records on your horses must be kept if they travel. The University of California at Davis Center for Equine Health website (www.vetmed.ucdavis.edu/ceh/wnv_info.html) offers some good information on equine health and updated WNV statistics. The information here is intended for educational purposes only. Always consult your veterinarian regarding the health of your animals.



WNV has also been associated with illness and death in other animals including alligators, reindeer, mountain goats and squirrels. In Sept. 2002 a captive, 12 year old harbor seal at the New Jersey State Aquarium died. West Nile Virus does not appear to cause extensive illness in dogs or cats.