West Nile Virus

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West Nile Virus in Dogs: Mosquitoes Repellent and West Nile Encephalitis Prevention West Nile Virus

West Nile Virus has recently emerged in North America as a threat to both public and animal health. The nation's first documented case of a domestic canine death attributed to the West Nile virus was confirmed at the University of Illinois in 2002. Since then, numerous human deaths have been attributed to this disease.

Provided below are a few of the most commonly-asked questions about West Nile Virus.

What is West Nile encephalitis?
"Encephalitis" means an inflammation of the brain and can be caused by viruses and bacteria. West Nile encephalitis is an infection of the brain caused by West Nile virus, a flavivirus commonly found in Africa, West Asia, and the Middle East. In 1999, West Nile virus was identified in the United States.

How do animals and people get West Nile encephalitis?
People and animals become infected by the bite of a mosquito carrying the West Nile virus. Mosquitos become infected when they feed on infected birds, which may circulate the virus in their blood for a few days. Infected mosquitoes can then transmit West Nile virus to humans and animals while biting to take blood.

Besides mosquitoes, can you get West Nile virus directly from other insects or ticks?
Infected mosquitoes are the primary source for West Nile virus. Although ticks infected with West Nile virus have been found in Asia and Africa, their role in the transmission and maintenance of the virus is uncertain. There is no information to suggest that ticks played any role in the cases identified in the United States. West Nile encephalitis is NOT transmitted from person-to-person.

Who is at risk for getting West Nile encephalitis?
All residents of areas where virus activity has been identified are at risk of getting West Nile encephalitis; persons over 50 years of age have the highest risk of severe disease.

If I live in an area where birds or mosquitoes with West Nile virus have been reported and a mosquito bites me, am I likely to get sick?
No. Even in areas where the virus is circulating, very few mosquitoes are infected with the virus. Even if the mosquito is infected, less than 1% of people who get bitten and become infected will develop a more severe illness that includes meningitis (inflammation of the spinal cord) or encephalitis. The chances you will become severely ill from any one mosquito bite are extremely small.

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And of the 1% that do get a more serious illness, how many will die as a result?
Of the few people that develop encephalitis, a small proportion die but, overall, this is estimated to occur in less than 1 out of 1000 infections. Case fatality rates are highest among the elderly.

What are the symptoms of West Nile virus infection in people?
Most humans infected with West Nile virus have no symptoms. A small proportion develop mild symptoms that include fever, headache, body aches, and occasionally skin rash or swollen lymph glands. The symptoms of meningitis or encephalitis can include headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis. Contact your health care provider if you have concerns about your health.

What is the treatment for West Nile virus infection?
There is no specific treatment for West Nile virus infection or vaccine to prevent it. Treatment of severe illnesses includes hospitalization, use of intravenous fluids and nutrition, respiratory support, prevention of secondary infections, and good nursing care. Medical care should be sought as soon as possible for persons who have symptoms suggesting severe illness.

How can I decrease the risk of becoming infected with West Nile virus?

- Stay indoors at dawn, dusk, and in the early evening.
- Wear long-sleeved shirts and long pants whenever you are outdoors. Spray clothing with repellents containing permethrin or DEET, since mosquitoes may bite through thin clothing.
- Apply insect repellent sparingly to exposed skin. An effective repellent will contain 35% DEET (N,N-diethyl-meta-toluamide). DEET in high concentrations (greater than 35%) provides no additional protection.
- Repellents may irritate the eyes and mouth, so avoid applying repellent to the hands of children.
- Whenever you use an insecticide or insect repellent, be sure to read and follow the manufacturer's DIRECTIONS FOR USE, as printed on the product.
- Install or repair window and door screens so that mosquitoes cannot get indoors.

What can I do to help protect my dog or other pet from this virus?
Try to keep your pet indoors at dawn, dusk, and the early evening. Also, a number of flea and tick products, including Bio Spot® ACTIVE CARE SPOT ON® for Dogs, also act as mosquito repellents. Please remember that not all flea and tick products can be used in cats.

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