West Nile Virus Questions and Answers

Q: How do people get infected with West Nile Virus (WNV)?
A: The most likely way a human would become infected with WNV is through the bite of an infected mosquito. Some people have also become infected with WNV following receipt of contaminated blood or blood products, or transplanted organs from an infected donor. Mothers who are recently infected with WNV may also transmit the virus to their unborn child, or to their baby while breastfeeding.

Q: Who is at risk for getting West Nile encephalitis?
A: All residents of areas where WNV activity has been identified are at risk of getting West Nile encephalitis.

Q: What is the time from exposure to onset of disease symptoms for West Nile encephalitis in humans?
A: Usually 3 to 15 days.

Q: What are the symptoms of West Nile virus infection?
A: Most people who are infected with WNV will not have any noticeable illness, or have a mild form of illness called West Nile Fever. Persons with West Nile Fever typically experience symptoms of fever, headache, nausea, muscle weakness, and body aches lasting 2 to 6 days or longer. Sensitivity when looking at light and a skin rash appearing on the trunk of the body may also be present. Approximately 20% of persons infected with WNV will develop more severe neurologic disease that may be life-threatening. Adults over the age of 50 years are at greater risk of having serious disease. Potential symptoms of severe infection (West Nile encephalitis or meningitis) include intense headache, dizziness, severe muscle weakness, neck stiffness, vomiting, disorientation, mental confusion, tremors, muscle paralysis, or convulsions and coma.

Q: Is there a human vaccine against West Nile encephalitis?
A: No, but companies are working towards developing a vaccine.

Q: How can I reduce my risk of getting West Nile disease?
A: Practice the four “Ds”!
• Apply a mosquito repellant containing DEET or another approved active ingredient such as Picaridin, oil of lemon eucalyptus, or IR3535
• Avoid being outdoors between Dusk and Dawn
• Drain any standing, stagnant water observed in containers or artificial locations around your home and workplace
• Dress wearing long sleeves and long pants to shield skin from mosquitoes.
Q: What is the transmission cycle of West Nile virus?
A: Female mosquitoes become infected when they feed on infected birds. Infected mosquitoes can then transmit WNV to humans and animals while taking blood meals. The primary transmission cycle is bird-mosquito-bird, with incidental transmission occurring to people and horses.

Q: 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?
A: It only takes one bite from an infected mosquito to transmit the disease; however, even in areas where the virus is circulating, less than 1% of mosquitoes are generally infected with the virus. Therefore, the chances you will become severely ill from any one-mosquito bite are extremely small. Persons who have repeated exposures to mosquitoes are at higher risk of acquiring illness from WNV.

Q: What types of animal develop illness from West Nile Virus infection?
A: Birds and horses are most susceptible to disease caused by WNV. Although numerous animals are bitten by infected mosquitoes, illness caused by WNV is uncommon in domestic pets or other wildlife. West Nile virus infections have been proven in a variety of animals, including squirrels, bats, dogs, cats, goats, skunks, domestic rabbits, and even alligators. However, WNV is NOT considered a significant health threat for dogs and cats; they appear to be very resistant to developing disease.

Q: Should I apply insect repellents to my pets?
A: In general, this is not a recommended practice. Because dogs and cats are at very low risk of becoming ill from WNV, the potential side effects of the insecticide outweigh the potential benefits. A more significant mosquito-borne disease threat to dogs and cats is heartworm disease. Safe and effective heartworm preventative medications can be obtained through your veterinarian. Application of insecticides to pet birds or “pocket pets” (hamsters, gerbils) is potentially harmful and should only be done under the advice of a veterinarian. Using insect repellants may help decrease mosquito exposure to horses, but vaccination is the primary method of WNV protection for horses.

Q: Are pet birds at risk?
A: The disease risk to a pet bird depends on the amount of exposure the bird has to mosquitoes. Domestic birds kept strictly indoors have minimal risk. Pet birds that are caged or perched outdoors for variable lengths of time are at increased risk.

Q: Can you get West Nile virus directly from birds?
A: There is no evidence that a person can get WNV from handling live or dead infected birds. However, persons should avoid barehanded contact when handling any dead animals. Dead birds can be double-bagged and placed in the regular trash for disposal.

Q: What are the symptoms of West Nile Fever in horses?
A: WNV primarily affects the brain and nerves. Therefore, symptoms may include a change in personality, hyperresponsiveness to sound or touch, muscle tremors or twitching, stumbling and falling, or circling. The illness may progress to more serious symptoms such as inability to stand, seizures, and death.

Q: How can I protect my horse from West Nile virus?
A: The most effective and preferred way of reducing a horse's risk of developing West Nile encephalitis is vaccination. Two WNV vaccination products are currently available from your veterinarian or over the counter. Initially, a horse must receive two doses of vaccine given three to six weeks apart to be fully immunized. Then an annual booster must be administered to maintain protection. Due to the longer mosquito season in southern states, your veterinarian may recommend more frequent boosters. Horses that are only vaccinated against “sleeping sickness” (Eastern equine encephalitis, Western equine encephalitis or VenezueLEN equine encephalitis) are NOT protected against WNV.
Q: Can you get infected with West Nile virus by caring for an infected horse?
A: No. WNV is transmitted by infected mosquitoes. There is no documented evidence of animal-to-person transmission of WNV. However, precautions should be taken to avoid contact with the horse’s saliva because the symptoms of rabies and West Nile encephalitis may be indistinguishable. There is no need to isolate or quarantine a horse that is diagnosed or suspected of being infected with WNV.

Q: Can a mosquito transmit West Nile virus from an infected horse or human?
A: No. A human or a horse that is infected with WNV does not have a high enough concentration of the virus in its blood or tissues to be a source of virus for biting mosquitoes. This is why horses or people that develop illness from WNV do NOT need to be quarantined or otherwise isolated.

Q: Can a horse infected with West Nile Virus infect horses in neighboring stalls?
A: No. WNV is not transmitted between horses. Horses in the same vicinity are being exposed to the same mosquito population, though, so it is common to see more than one infected horse in a herd if they are not protected by vaccination.

Q: Are duck and other wild game hunters at risk for West Nile virus infection?
A: Because of their outdoor exposure, game hunters may be at risk if they hunt in mosquito-infested areas. Using insect repellants will decrease their risk of acquiring a tick or mosquito-borne illness.

Q: Can I get West Nile Virus from cleaning or eating wild game?
A: Two persons are known to have acquired illness from WNV following knife injuries sustained while harvesting organs from birds infected with WNV. Direct handling of infected birds or animal tissue is insufficient to spread the virus. Hunters are advised to wear gloves when handling and cleaning animals to prevent exposure to other disease agents, such as Salmonella. Game meat should be thoroughly cooked. Normal cooking temperatures will inactivate WNV.