

UNIVERSITY OF WYOMING

STUDENT HEALTH SERVICE

West Nile Virus (WNV) Questions and Answers

Q: How do people get infected with WNV?

A: Most people who are infected with WNV get it through the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds, and the virus finds its way to the mosquito's salivary glands. During subsequent bites, the virus may be injected into humans and animals, where it can multiply and possibly cause illness.

Q: What are the symptoms of WNV infection?

A: Most people who are infected with WNV will not have any type of illness. About 20% of the people who are infected will develop West Nile Fever. The symptoms are mild, and include fever, headache and body aches, occasionally a skin rash and swollen lymph nodes.

The symptoms of severe infection, West Nile encephalitis or meningitis, include headache, high fever, neck stiffness, disorientation, coma and muscle weakness. About 1 in 150 persons infected with WNV will develop this more severe form of the disease. Encephalitis is more common than meningitis. Persons over 50 years of age are at highest risk to develop the severe form of the disease.

Q: What is the incubation period in humans?

A: The time from transmission to onset of disease symptoms is usually 3 to 14 days.

Q: If I live in an area where birds or mosquitoes with WNV have been reported and a mosquito bites me, am I likely to get sick?

A: 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 infected will get severely ill. The chances you will become severely ill from any one mosquito bite is extremely small.

Q: If I think I have symptoms of WNV infection, what should I do?

A: If you or a family member develops symptoms such as high fever, confusion, muscle weakness, and severe headaches, you should see your doctor immediately. If your doctor determines you are at high risk, and you have symptoms of West Nile encephalitis, a blood sample may be drawn and sent to the Wyoming Department of Health's public health laboratory for confirmation.

Q: How is West Nile encephalitis treated?

A: There is no specific treatment of WNV infection. In more severe cases, hospitalization, intravenous fluids, respiratory support (ventilator) and good nursing care are needed.

Q: Is the disease seasonal in its occurrence?

A: In the temperate zones cases peak during late summer and early fall. In southern climates where temperatures are milder, WNV can be transmitted year round.

Q: Will there likely be more human cases this year in Wyoming, than the two cases that were seen in 2002?

A: One of the species of mosquitoes that carries the WNV can survive the winter, or "overwinter," in the adult stage. The virus survives along with the mosquitoes. WNV did not reach Wyoming until late in the summer 2002, so the "season" will be longer in 2003, and probably more human cases will be seen.

Q: What can I do to reduce my risk of becoming infected with WNV?

A: Protect yourself from mosquito bites. Apply insect repellent containing DEET to exposed skin whenever you are outdoors. The higher the percentage of DEET in a repellent does not mean your protection is better, just that it will last longer. Preparations that are 10-50% DEET are sufficient in most situations, and can be reapplied according to manufacturers instructions. The American Academy of Pediatrics recommends that repellents containing more than 10% DEET not be used on children, and DEET is not recommended for infants younger than two months of age. DEET is approved for application to skin, pets, clothing, tents, bedrolls and screens.

Permethrin is a repellent that can be applied to clothing, tent walls, mosquito nets, or other fabrics, but not skin. Vitamin B and "ultrasonic" devices are NOT effective in preventing mosquito bites.

When possible, wear long-sleeved shirts, long pants and socks whenever you are outdoors. Place mosquito netting over infant carriers when you are outdoors with infants. Consider staying indoors at dawn, dusk and in the early evening, which are peak mosquito biting times. Install or repair window and door screens so that mosquitoes cannot get indoors.

Help reduce the number of mosquitoes in areas outdoors where you work or play, by draining sources of standing water, such as birdbaths, clogged rain gutters, discarded tires, buckets, and pet food and water dishes. In this way, you reduce the number of places mosquitoes can lay their eggs.

There is no vaccine available yet.

Q: Why do we monitor dead birds?

A: Birds typically become infected with WNV before humans, so dead birds are an indicator of WNV activity. The idea is to identify the virus before humans are affected so that public education and mosquito control can reduce the impact.

Q: How do I report a dead bird?

A: Report only dead *crows, jays, ravens and magpies*. If you find a dead bird, DO NOT SEND it to state or local health agencies. Call the WNV toll-free number at 1-877-WYO-BITE for instructions.

Q: How does WNV affect horses?

A: Horses become infected with WNV the same way humans do, through the bite of an infected mosquito. Most horses infected with WNV recover, about 30% of cases result in death. There is no evidence the virus is transmitted between horses, or from animal to person. There is a WNV vaccine approved for horses, but its effectiveness is unknown.

Q: Where can I get more information about WNV?

A: You can find more information on the web from the Centers for Disease Control and Prevention at www.cdc.gov, or from the Wyoming Department of Health at www.badskeeter.org.