

West Nile Encephalitis

What is West Nile Encephalitis?

West Nile Encephalitis is a viral disease transmitted to people and horses through the bite of an infected mosquito.

West Nile virus (WNV) is maintained in a transmission cycle involving one or more species of mosquitoes and birds. Current research is focusing on which mosquitoes and birds are most important in this cycle.

WNV is usually found in Africa and southern Europe. The virus was first reported in North America during a 1999 outbreak of encephalitis in New York City.

How serious is West Nile virus?

Most people infected with WNV will have either no symptoms or a very mild illness. A small percentage of people, especially elderly patients, may develop encephalitis (inflammation of the brain). Approximately 10% of these encephalitis cases are fatal.

Most of the severe human cases of WN encephalitis begin with sudden onset of fever, headache, stiff neck, and vomiting. The illness progresses quickly to include confusion and other mental status changes, altered reflexes, convulsions, and coma. There is no treatment for WN encephalitis other than supportive care.

Approximately 33% of symptomatic horses are put down or die from WNV infections.

What is the risk of a West Nile Encephalitis outbreak in Minnesota?

Since 1999, WNV has moved rapidly to 47 states, the District of Columbia, 7 Canadian Provinces, 24 Mexican States, and the Cayman Islands. WNV was detected in Minnesota (July 23rd, 2002).

9,858 human WN cases were reported in the United States in 2003.

With our abundant mosquito and bird populations, we expect that WNV will become established in Minnesota. Similar to other mosquito-transmitted diseases already established in this area (LaCrosse encephalitis, Western equine encephalitis, and Eastern equine encephalitis), WNV will likely cause sporadic illness in humans (especially elderly people) and horses.

What can people do to prevent West Nile Encephalitis?

Personal protection measures such as use of mosquito repellents, avoiding outdoor exposures at dusk and dawn (peak feeding time for many mosquitoes), and wearing long-sleeved shirts and long pants can reduce the risk of WN encephalitis.

Removal of water-holding containers (mosquito breeding sites) from residential areas will reduce numbers of several mosquito species.

What can people do to prevent West Nile Encephalitis? (Continued)



Infectious Disease Epidemiology,
Prevention & Control
717 Delaware St. SE
Minneapolis, MN 55440
(612) 676-5414
www.health.state.mn.us

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There is a vaccine available for horses to prevent WN encephalitis. Please contact your veterinarian for vaccine recommendations. A human WNV vaccine is still in development.

How can I help look for West Nile virus?

The first indication of WNV in an area is usually an outbreak of the disease in wild bird populations. Over 255 species of birds have been found to be infected, but dead American crows and Blue jays are especially apparent in outbreak areas. If you find dead birds during the summer months (especially July-September), please report them to the Minnesota Department of Health. This year we are offering web-based reporting which is available on the MDH webpage at www.health.state.mn.us. The submission form can be found under "West Nile Virus" in the "diseases A-Z" section. These submissions will be reviewed daily by MDH staff and a small sample of birds will be collected for testing. If you are unable to report online, dead birds can be reported over the phone at 612-676-5055.