

West Nile Virus Key Facts

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.
- The virus was first reported in North America during a 1999 outbreak of encephalitis in New York City. WNV had been previously identified in Africa and Europe.
- Since 1999, WNV has moved rapidly across the United States. In 2006, cases were reported in 44 states.

How serious is West Nile virus in people?

- 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).
- Most of the severe human cases of West Nile encephalitis begin with sudden onset of fever, headache, stiff neck, and vomiting. The illness progresses quickly to include confusion and other mental status changes, in addition to altered reflexes, convulsions, and coma. There is no treatment for this encephalitis other than supportive care until the acute phase of the illness is over.
- In 2004, there were 2,539 human cases of WNV infection in the United States with 100 fatalities.
- In 2005, there were 3,000 cases with 119 fatalities.
- In 2006, there were 4,269 cases with 177 fatalities.
- At the time of this update, there have been 741 cases in 2007 with 21 fatalities. Most cases, however, are seen between September and December.

What was the impact of the 2006 West Nile Virus outbreak in Minnesota?

- In 2006, there were 65 human cases of West Nile virus in Minnesota with 3 fatalities.
- Of the 18 equine cases reported, 22% died or were euthanized.
- WNV was identified in 478 birds

What is the likely future of West Nile virus in Minnesota?

- With our abundant mosquito and bird populations, WNV has established itself in Minnesota.
- Similar to other mosquito-transmitted diseases already present in this area, such as LaCrosse encephalitis, western equine encephalitis and eastern equine encephalitis, WNV will likely cause periodic outbreaks of illness in humans (especially the elderly) and horses.

What can people do to prevent West Nile virus infection?

- Personal protection measures such as the use of mosquito repellents containing DEET, avoiding outdoor exposures at dusk and dawn (peak feeding time for many mosquitoes), and wearing long-sleeved shirts and long pants will reduce WNV risk.
- Attach and maintain screens on windows and doors to keep mosquitoes out of the home.
- Removal of water-holding containers (mosquito breeding sites) from residential areas will reduce numbers of several mosquito species. This includes things like old tires, birdbaths and clogged rain gutters.
- There are equine vaccines available, and they should be administered each spring with the rest of the horse's vaccines.
- Currently there is no West Nile virus vaccine available for humans.

How do I know if West Nile virus is in my area?

- Often the first indication of WNV is an outbreak of the disease in wild bird populations. More than 140 species of birds have been infected, but dead American crows and blue jays are especially apparent in earlier outbreaks. If you find freshly dead birds during the summer months (especially June- September), please report them at the Minnesota Department of Health (MDH) website at www.health.state.mn.us.
- If your horse develops a fever, muscle weakness or tremors contact your local veterinarian. It is important to rule out other cases of neurological disease such as rabies. WNV infection in horses should be reported to the Minnesota Board of Animal Health (651) 296-2942.

For more information visit:

- **Centers for Disease Control and Prevention** <http://www.cdc.gov/ncidod/dvbid/westnile/q&a.htm>
- **United States Department of Agriculture** www.aphis.usda.gov
- **Minnesota Department of Health** www.health.state.mn.us
- **Metropolitan Mosquito Control District** www.mmcd.org

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*For clarification of
information presented
on this fact sheet,
email cahfs@umn.edu.*