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 2010, 981 cases, with fatalities, were reported in 40 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.

If I had West Nile virus already, can I be infected again?

Once a person has contracted the virus, evidence suggests that they have some immunity against re-infection, although it may lessen later in life.

How long does the virus remain in a person’s body after they are infected?

Most people do not become chronically infected with West Nile virus after being sick. In a very small number of patients, symptoms can persist for some time after the initial infection.

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 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.
- Equine vaccines are available and should be administered each spring with the rest of the horse’s vaccines.
- Currently there is no West Nile virus vaccine available for humans.

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

- With our abundant mosquito and bird populations, WNV has established itself in Minnesota.
- In 2010, there were 8 cases and no fatalities 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.

West Nile Cases in Minnesota, 2002 - 2010

- [Graph showing West Nile Cases in Minnesota, 2002 - 2010]
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 have been especially apparent in earlier outbreaks.
- If you live in the seven county metro area and find a dead bird, you can report it to the Metropolitan Mosquito Control District by calling (651) 645-9149.
- 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.

Additional Information:
- Centers for Disease Control and Prevention
- U.S. Department of Agriculture
- Minnesota Department of Health
- Metropolitan Mosquito Control District

This fact sheet is meant to provide basic information. For specific health concerns please contact your physician or veterinarian.