



West Nile Virus Infection

West Nile Virus (WNV) is a viral infection spread by mosquitoes that has been widely known in Africa, Asia, the Middle East and Europe for decades, but was only first seen in the U.S. in 1999, when it caused an outbreak in New York City. It is not known how it first was brought to the U.S., but the appearance of the first outbreak in New York City indicates it was probably brought through travel or commerce. In a few short years afterwards, it spread throughout most of the eastern half of the U.S.

What illness does West Nile Virus cause?

The great majority of people infected with WNV do not become ill. For those who do become ill (called West Nile Fever), typical symptoms include fever of sudden onset, tiredness, poor appetite, nausea, vomiting, eye pain, muscle aches, muscle weakness, joint pain, rash, and swollen lymph glands. Symptoms last 3-6 days, and no treatment is needed.

The most serious form of West Nile infection is meningitis or encephalitis, i.e., infection of the brain. Symptoms of this include fever, headache, decreased level of consciousness, confusion, and sometimes seizures.

Most WNV cases occur when mosquitoes are active July through December with a peak of late August to early September. The season may be longer in southern areas with warmer weather. People over 50 are at greatest risk of serious illness.

Because WNV is a viral infection, there is no specific treatment. Antibiotics are not helpful. Those who become very ill are hospitalized.

How do people become infected?

The virus is transmitted through the bites of mosquitoes that carry the germ. When these mosquitoes feed off certain birds, especially crows, ravens, and jays, these birds get infected with the virus and can die. The mosquito transmits the virus to humans, horses, and other animals as well, but most people and other animals do not become ill from the infection. Because these birds are the animals most affected by the virus, the rate of deaths of birds from WNV is usually a sign of how much the virus has spread in the community.

What are the chances of West Nile Virus infection?

Human illness from WNV is rare, even in areas where the virus has been reported. The chance that any one person will become ill from a mosquito bite is low. Of those who do become infected, only 1 in 5 develop illness at all, and only 1 in 150 develop encephalitis. Illness occurs 3-14 days after exposure (i.e., the mosquito bite).

How can I avoid infection?

Control of mosquitoes is the best defense against WNV. Mosquitoes breed in stagnant water, so eliminate those sources around your home, such as clogged gutters, birdbaths, stagnant ponds, flowerpots, overturned trashcan lids, and old tires. Use insect repellent containing 10-50% DEET (10% DEET is recommended for children above the age of 2 months) and wear long sleeves and pants during outdoor activities, especially after dusk. DEET is the only insect repellent sold for use on the skin which is effective enough. Permethrin is effective but should only be used on clothing, fabrics, tents, etc.

What else should I do?

Report any unusual dead birds, especially crows, to the State Health Department at 1-877-PA-HEALTH. They will advise you further and may test the bird for WNV to follow the level of virus activity in the community. A dead bird infected with WNV is not contagious, but it is wise to handle it with gloves.

If you have symptoms that you think may represent West Nile infection, report them to your health care provider. Blood testing is available, although it is not completely accurate. It is probably not needed for mild cases.

For more information:

Call 1-877-PA-HEALTH, or www.westnile.state.pa.us, or the CDC at www.cdc.gov/ncidod/dvbid/westnile

