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West Nile Virus

The West Nile Virus is primarily a disease of birds. It is commonly found in Africa, West Asia, and the Middle East, but has also caused outbreaks in Europe. In humans, it can cause encephalitis, an infection of the brain. West Nile Virus is similar to the virus that causes St. Louis encephalitis, which for years has been found in the United States. West Nile had not been found in the United States before the late summer of 1999.

What are the Symptoms of West Nile Virus?

Most people infected by the West Nile Virus have no symptoms at all, or experience something that feels like flu. Symptoms of "West Nile fever" may include fever, headache, achy muscles, and extreme tiredness, perhaps with skin rash and swollen lymph glands. In a fraction of cases, the fever leads to encephalitis, which is fatal in some cases or may cause neurologic after-effects. There is no vaccine against West Nile, and no known "cure." As with other viral diseases, treatment consists of support until it has run its course. The incubation period—the time between an infectious bite and the onset of symptoms—is usually 5-15 days.

How Do You Get West Nile Virus?

Humans get the West Nile Virus largely from the bite of mosquitoes. Although some 150 species of mosquitoes are found in the United States, the primary transmitter of West Nile is *Culex pipiens*. The female mosquito catches the virus when it bites an infected bird, and can then pass it along if it later bites a human. Humans do not get it from other humans or animals.

The virus can infect many different species of birds and other animals, but crows seem particularly vulnerable, and monitoring programs focus on them. In fact birds were the key to solving the 1999 outbreak. CDC epidemiologists identified the West Nile virus and linked it to the human illness after pathologists found the disease in flamingos, herons, and bald eagles that had been dying at the Bronx Zoo. The virus has been found also in horses and a cat.

Where Has West Nile Virus Been Detected?

The human cases and fatalities in the 1999 outbreak were all in the New York City area, but infected mosquitoes and birds were found also in Connecticut and New Jersey. Last fall, one infected crow was found as far south as Baltimore, Maryland. The fall 1999 outbreak ended when the hard frosts of the oncoming winter ended most mosquito activity. But some infected mosquitoes have survived the winter, and this has prompted public health agencies to continue monitoring mosquitoes and USGS to continue actively monitoring bird populations.

What You Can Do to Help Fight Mosquitoes?

Empty standing water in old tires, cemetery urns, buckets, plastic covers, toys, or any other container where "wrigglers" and "tumblers" live.

Empty and change the water in bird baths, fountains, wading pools, rain barrels, and potted plant trays at least once a week if not more often.

Drain or fill temporary pools with dirt.

Keep swimming pools treated and circulating and rain gutters unclogged.

Use mosquito repellents when necessary and follow label directions and precautions closely.

Use head nets, long sleeves and long pants if you venture into areas with high mosquito populations, such as salt marshes.

If there is a mosquito-borne disease warning in effect, stay inside during the evening when mosquitoes are most active.

Make sure window and door screens are "bug tight."

Related Links

[USGS National Wildlife Health Center \(NWHC\) West Nile Virus Project](#)

[Centers for Disease Control West Nile Virus homepage](#)

[EPA Pesticides: Topical & Chemical fact Sheets](#)