West Nile virus is a flavivirus commonly found in Africa, West Asia, and the Middle East. It is closely related to St. Louis encephalitis virus found in the United States.

Before August 1999, West Nile virus had never been reported in the United States. In 1999, 62 cases of severe disease and 7 deaths occurred in New York (including one death of a Canadian infected in New York). No reliable estimates are available for the number of cases of West Nile encephalitis that occur worldwide.

Mosquitoes become infected when they feed on infected birds, which may circulate the virus in their blood for a few days. After an incubation period of 5 to 15 days, infected mosquitoes can then transmit West Nile virus to humans and animals while biting to take blood. The virus is located in the mosquito's salivary glands. During blood feeding, the virus is then injected into the animal or human, where it multiplies and may cause illness.

West Nile encephalitis is NOT transmitted from person-to-person.

There is no evidence that a person can get the virus from handling live or dead infected birds. However, avoid bare-handed contact when handling dead animals, including dead birds. Use gloves or double plastic bags to place the carcass in a garbage can.

There is no specific therapy for West Nile encephalitis. There is no vaccine against West Nile encephalitis.

The incubation period in humans (i.e., time from infection to onset of disease symptoms) for West Nile encephalitis is usually 5 to 15 days.

The West Nile virus case-fatality rates range from 3% to 15% and are highest in the elderly.

Following transmission by an infected mosquito, West Nile virus multiples in the person's blood system and, in severe cases, crosses the blood-brain barrier to reach the brain. The virus interferes with normal central nervous system functioning and causes inflammation of brain tissue.

In the Temperate Zones of the world (i.e., between latitudes 23.5° and 66.5° north and south), West Nile encephalitis cases occur primarily in the late summer or early fall. In tropical and subtropical climates where temperatures are milder, West Nile virus can be transmitted year round.