



West Nile virus (WNV)

Group: IV (+)ssRNA

Genus: *Flavivirus*

Family: *Flaviviridae*

Species: *West Nile virus*

West Nile virus (WNV) is a virus belonging to the *Flaviviridae* family (genus *Flavivirus*) this is a family of viruses that are primarily spread through arthropod vectors such as mosquitoes and ticks. WNV is a potentially serious illness that occurs in the summer and into the fall. There are 36 mosquito species shown to be positive for WNV the *Culex* specie is the principle mosquito in transmitting WNV pathogens on to other susceptible mammals including humans.

Mosquitoes become infected with WNV after a few days of feeding on an infected bird giving the virus time to circulate through the mosquitoes system. By the time the mosquito is ready for her next feeding she can transmit the virus. WNV is located in the salivary glands of the mosquito. Mosquitoes salivate while obtaining their blood meals causing the transmission of WNV. In the U.S. over 15,000 people have tested positive for WNV (Centers for Disease Control and Prevention). Many individuals may not be aware that they are infected with WNV because they have experienced very mild to no symptoms.

Individuals at risk for getting West Nile encephalitis are:

- People who spend a lot of time outdoors, especially at dawn & dusk, because they have more of a chance of being bitten by infected mosquitoes.
- Residents in areas identified with WNV activity

Those at high risk of developing a serious illness, possibly fatal, are:

- Individuals with compromised immune systems
- Individuals over the age of 50

Fatality rates in Individuals with severe illness due to WNV range from 3% to 15% highest fatality rates are among the elderly & immunocompromised

Contracting WNV is low & less than 1%, approximately 1 out of 150 people infected will develop a serious illness. However, everyone is susceptible to WNV and no one can predict the extent of the illness. Protecting yourself & loved ones against mosquito bites is important to reduce the risk of infection.

Prevention:

Preventing mosquito bites is the best form of WNV prevention. Be sure to:

- Use insect repellent containing EPA-registered active ingredients (DEET, Picaridin, IR 3535, & oil of lemon eucalyptus) and follow label instructions
- Wear loose fitting light colored long sleeves & pants during dusk & dawn when mosquito are most active as well as in areas with high mosquito activity.
- Eliminate mosquitoes breeding spots by dumping out standing water from buckets, barrels, and flower pots
- Replace/change water in bird baths and pet dishes
- Check your children's outside toys for standing water
- Keep wading pools empty when not in use & store on its side
- Drill holes in tire swings to prevent accumulation of water
- Make sure you have tight fitting screens on your doors and windows
- Keep spas, pools, and ponds in working order and free from algae

<http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnv-guidelines-aug-2003.pdf>

Symptoms of West Nile virus:

Remember to use these steps to protect yourself:

People infected with WNV can have no symptoms, West Nile Fever, or West Nile Neuroinvasive disease.

Symptoms usually occur 2-15 days after infection.

Symptoms of West Nile Fever can include:

- Headaches (often severe migraines)
- High fever
- Tiredness and body aches
- Occasionally a skin rash and swollen lymph glands

Even healthy people may suffer sickness for several days to several weeks, and be unable to function normally.

• **Dump standing water** – tires, buckets, birdbaths, flowerpots, and even soda cans become “mosquito nurseries”.

• **Defend your house** – make sure screens on windows and doors are tight fitting and in good repair.

• **Defend yourself** – when outdoors at dusk and dawn, use a mosquito repellent. The active ingredients DEET, Picaridin, IR 3535, and oil of lemon eucalyptus are the longest lasting and most effective.

Symptoms of West Nile Neuroinvasive disease can include:

- Severe Headache
- High Fever
- Stiff neck
- Stupor
- Disorientation
- Tremors, convulsions, muscle weakness
- Paralysis
- Coma

This form of the disease can lead to long-lasting if not permanent damage to the body and brain.

For more information visit: <http://www.wvmosquito.org> and <http://www.westnile.ca.gov>.

Residents can also report dead birds and squirrels to the CA Department of Public Health’s toll-free hotline, 877-WNV BIRD (968-2473) or visit on-line at: www.westnile.ca.gov.

The District phone number is 909-635-0307.

The office is located at 1295 East Locust St. Ontario CA, 91761 and is open Monday-Friday 7:30 AM to 3:30 PM.

Guidelines for Surveillance, Prevention, and Control