



Mosquitos and West Nile Virus

[What is West Nile Virus?](#)

[What are the symptoms of West Nile Virus?](#)

[How many cases of illness from West Nile Virus have been reported in California?](#)

[How can I prevent West Nile Virus illness?](#)

What is West Nile Virus?

The West Nile Virus is an arthropod-borne virus (arbovirus) which is primarily transmitted by mosquitoes from bird to bird. People and other animals become infected through the bite of a mosquito carrying the virus. West Nile Virus was first detected in the United States in New York City in 1999.

The infection is fatal to most birds, so the presence of dead birds can mean that the virus is circulating. Infected dead birds were first found in San Francisco in August 2004. By 2005, there were infected birds and mosquitoes in every county in California.

What are the symptoms of West Nile Virus?

Most people who are bitten by a mosquito with the virus will not develop disease. About 80% of persons who do become infected will have no symptoms at all and will acquire long-term immunity to the virus. About 20% of infected persons may experience flu-like symptoms that might include aches, fever, fatigue and rash, which may last three weeks. Fewer than 1% of infected persons develop life-threatening neurological symptoms and require hospitalization for supportive care. Almost all fatalities from the virus have occurred in persons older than 50. Persons who are immune-compromised may be at greater risk of serious illness. At this time there is no vaccine or specific treatment for West Nile Virus disease. West Nile virus is not normally spread from person to person. ([back to top](#))

How many cases of illness from West Nile Virus have been reported in California?

The number of confirmed cases of human illness in California caused by West Nile Virus changes from year to year. For the most up-to-date case count in California, visit [California's West Nile Virus Website](#). You can also visit the [CDC](#)

[West Nile Virus website](#) for information on reported human cases across the nation as well as additional information about West Nile Virus. ([back to top](#))

How can I prevent West Nile Virus illness?

There are simple and practical steps San Francisco residents can take to prevent West Nile Virus illness. One step is to prevent mosquito breeding and sheltering in your yard. Mosquitoes breed by laying their eggs in standing water. These hatch into larvae (wigglers), and will mature into adult mosquitoes in about a week in warm weather. The San Francisco Health Code requires property owners in San Francisco to maintain their properties free of conditions that allow mosquitoes to breed. Where possible, residents should:

- Drain all standing water from the property, such as saucers below flower pots, hot tub covers, wading pools, hollow stumps and trash containers. Remove tires and car parts or store them indoors.
- Stock permanent ponds with fish that eat mosquito larvae. Pumps that circulate water are also effective.
- Clean out clogged roof gutters in the spring and fall, and maintain drains clear of leaf litter.
- Cut back overgrown vegetation, especially if it is growing in the shade and do not over water your yard. Keep grass cut short and let the ground and the soil in potted plants dry on the surface before watering. Keep your ground clear of leaf litter.
- Use non-chemical insecticides such as Bti "dunks" that can be purchased at garden supply stores and used in pools of standing water that cannot be drained.

Because West Nile Virus is transmitted by mosquito bites, preventing mosquito bites can also prevent disease in San Francisco. Here are some simple ways to protect yourself and your family from bites.

- Screens: make sure that doors and windows have tight fitting screens. Repair or replace those with tears or holes.
- Dawn and dusk: avoid outdoor activity at dawn and dusk. In most areas the mosquito season is from May to October, but in the Bay Area the season may extend almost year round.
- Protective clothing: wear long sleeve shirts and long pants when mosquitoes are active.
- Repellents: DEET and permethrin products are most effective but must be used with caution, especially around children. ([back to top](#))