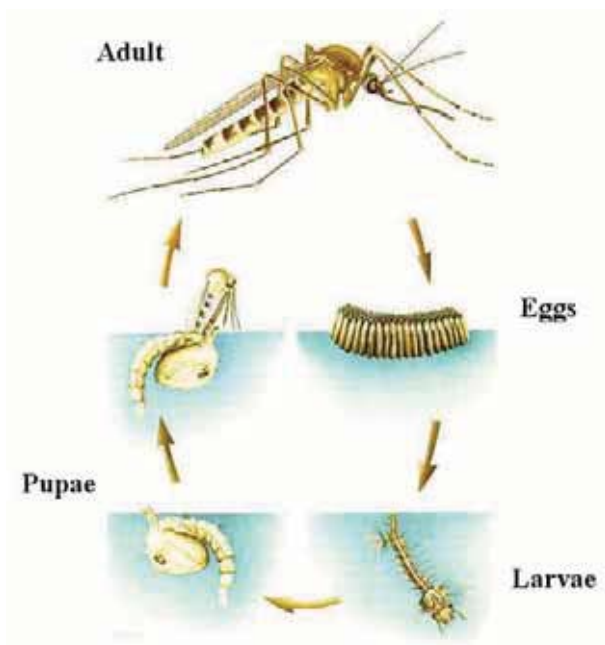




Dawn Gouge, Ph.D., Associate Extension Specialist, Department of Entomology, Maricopa Agricultural Center, University of Arizona

# West Nile Virus



Mosquito Life Cycle

So far this year, Arizona and Mississippi have reported their first West Nile human cases to the Center for Disease Control. California has reported WNV-infected birds, and Alabama has reported a WNV infected horse. Detailed statistics for the entire US can be found at: <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>.

## Signs and Symptoms

Most of the time, infection with West Nile virus makes people mildly ill. A person may experience flu-like symptoms such as fever, headache, body aches, and sometimes skin rash and swollen glands. Many of us have already been exposed and

carry antibodies to the virus, without even knowing. More severe infection can result in encephalitis, which includes symptoms of severe headache, high fever, neck stiffness, disorientation, and sometimes convulsions. Although very rare, severe West Nile infection in healthy, younger people can be fatal, but the medically compromised and the elderly are at greatest risk for severe complications.

The incubation period for West Nile virus is usually 5 to 15 days. In the United States, infections occur most frequently in the summer and early fall. In Arizona our mosquito and virus surveillance program begins April 1st, and continues for as long as the weather remains warm (sometimes into October). In the most severe cases, West Nile virus causes meningitis and/or encephalitis, which may be fatal or may cause long-term neurologic damage. However, about 80 percent of all West Nile virus infections are asymptomatic, and about 20 percent result in only a mild flu-like illness. Less than 1 percent of all West Nile infections result in neurologic disease.

## Prevention

The best way to avoid contracting West Nile virus, and other mosquito-borne illnesses is to avoid exposure to mosquitoes and eliminate mosquito-breeding sites:

- Eliminate standing water in your yard. Mosquitoes breed in pools of standing water. Only 4 days is required in summer to generate more blood feeding adults.
- Unclog roof gutters.
- Empty unused swimming pools, ponds, water features.
- Change water in birdbaths at least every four days.
- Remove old tires or any unused containers that might hold water and serve as a breeding place for mosquitoes.
- Watch for sick or dying birds and report them to your local health department.

To reduce your own exposure to mosquitoes:

- Avoid unnecessary outdoor activity when mosquitoes are most prevalent, such as at dawn, dusk and early evening. People who work outside should ensure they protect themselves sufficiently.
- Wear long-sleeved shirts and long pants when you go into mosquito-infested areas.
- Apply mosquito repellent; the Center for Disease Control (CDC) recommends that adults apply a 10 percent to 30 percent concentration of DEET (chemical name, N,N-diethyl-meta-toluamide) to skin and clothing. Choose the concentration based on the hours of protection you need — a 10 percent concentration is effective for about two hours, while higher concentrations last longer. Keep in mind that chemical repellants can be toxic, and use only the amount needed for the time you'll be outdoors. Don't use DEET on the hands of young children or on infants under 2 months of age. Instead, cover your infant's stroller or playpen with mosquito netting when outside. According to the CDC, oil of lemon eucalyptus, a more natural product, offers the same protection as DEET when used in similar concentrations. Other alternatives to DEET have been verified as effective and include products with picaridin as the active ingredient.

A vaccine is available to protect horses from West Nile virus. The vaccine is extremely effective, but booster inoculations are important. No vaccine is yet available for humans, but work to develop a human vaccine is under way.

The Department of Health Services has a 24-hour West Nile Virus hotline: 800-314-9243 and 602-364-4500 Phoenix Metro.

To see West Nile Virus incidence in the state of Arizona go to: <http://www.azdhs.gov/phs/oids/westnile/histdata.htm>

Additional prevention information can be found at: <http://www.azdhs.gov/phs/oids/westnile/>

### Why is avian flu (also called bird flu) more of a concern than WNV?

The reason why avian influenza is more worrisome than West Nile is that the fatality rate is far higher (greater than 50 percent so far), and the infection is transmitted from person to person, not by mosquitoes. So there is a potential for a worldwide epidemic. More information can be found on: <http://www.cdc.gov/flu/avian/>

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