

West Nile Virus

What is West Nile virus?

West Nile virus is a mosquito-borne virus that can cause encephalitis (inflammation of the brain) or meningitis (inflammation of the lining of the brain and spinal cord). West Nile virus is closely related to St. Louis encephalitis virus, which is also found in the United States.

How is West Nile virus spread?

West Nile virus is spread to humans by the bite of an infected mosquito. A mosquito becomes infected by biting a bird that carries the virus. West Nile virus is not spread by person-to-person contact such as touching, kissing or caring for someone who is infected.

Do all mosquitoes transmit the West Nile virus?

While there are many species of mosquitoes, not all species transmit the West Nile virus. *Culex quinquefasciatus* (commonly known as the southern house mosquito) is the species most commonly associated with West Nile virus in Georgia. Since it only takes one bite from an infected mosquito to transmit the West Nile virus, it is important to eliminate mosquito breeding sites, particularly containers where the southern house mosquito breeds, and to use personal protective measures.

What are the symptoms of West Nile virus?

Symptoms usually occur 3-15 days after the bite of an infected mosquito. Most people who are infected with West Nile virus have no symptoms or experience mild illness such as fever, headache and body aches before fully recovering. In some individuals, West Nile virus can cause serious disease that affects brain tissue. At its most serious, it can cause permanent neurological damage and can be fatal. Encephalitis symptoms include the rapid onset of severe headache, high fever, stiff neck, confusion, loss of consciousness (coma), tremors (shaking), muscle weakness and paralysis. Death may result in some cases.

Who is at increased risk of disease?

If they become infected, persons aged 50 or over and people with weakened immune systems are at highest risk of severe forms of the disease. However, anyone can become infected.

How is a West Nile infection treated?

There is no specific therapy. In severe cases, intensive supportive therapy is indicated, such as hospitalization, intravenous (IV) fluids and nutrition, airway management, breathing support (ventilator), prevention of secondary infections (pneumonia, urinary tract infection, etc.) and good nursing care.

Should I worry about my dog or cat becoming ill with West Nile virus?

Although a small number of infected dogs and cats have been reported, experimentally infected dogs showed no symptoms after infection with WNV. Some infected cats exhibited mild, nonspecific symptoms during the first week after infection, mainly a low fever and slight lethargy. It is unlikely that most pet owners would notice any unusual symptoms or behaviors in dogs or cats.

If you have questions about your pets and West Nile virus, contact your veterinarian or e-mail the Georgia Department of Agriculture at webmaster@agr.state.ga.us.

What can I do to reduce my risk of becoming infected with West Nile virus?

The easiest and best way to avoid becoming infected with West Nile virus is to avoid mosquito bites. Particularly from April to October, when mosquitoes are most active, take the following precautions:

- When enjoying the outdoors, remember to use an effective mosquito repellent. DEET (N, N-diethyl-meta-toluamide), picaridin and oil of lemon eucalyptus are effective repellents recommended by the U.S. Centers for Disease Control and Prevention.
- Wear long-sleeved shirts, long pants and socks when possible. Clothing also may be treated with repellents containing permethrin.
- FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR ALL REPELLENTS.
- Place mosquito netting over infant carriers when you are outdoors with infants.
- Consider staying indoors at dawn, dusk and in the early evening, which are peak mosquito biting times for the southern house mosquito.
- Install or repair window and door screens so that mosquitoes cannot get indoors.
- Remove as many sources of standing water as possible to eliminate mosquito breeding areas.

What can I do around my home to help reduce the mosquito population?

It may be helpful to remember that mosquitoes need water. They lay their eggs in standing water and young mosquitoes (larvae) develop in the water. Also, weeds, tall grass and bushes provide comfortable resting places for adult mosquitoes.

- Eliminate any standing water that collects on your property.
- Remove all discarded tires from your property.
- Dispose of tin cans, plastic containers, ceramic pots and similar water-holding containers.
- Use plant pots without saucers.
- Make sure roof gutters drain properly. Clean clogged gutters in the spring and fall.
- Clean and chlorinate swimming pools, outdoor saunas and hot tubs. If not in use, keep emptied and covered. Drain water from pool covers.
- Maintain or dispose of plastic wading pools.
- Change the water in bird baths at least twice a week.
- Turn over wheelbarrows when not in use.
- Keep weeds, tall grass and bushes trimmed around your home.
- Remind or help neighbors to eliminate breeding sites on their properties.

Where can I get more information on West Nile virus?

- DeKalb County Board of Health: www.dekalbhealth.net or 404-508-7871.
- Georgia Department of Human Resources, Division of Public Health, Epidemiology Branch, Notifiable Diseases Unit: <http://health.state.ga.us/epi/vbd/index.asp> or 404-657-2588.
- Residents who feel that they may have become infected with West Nile virus should contact their health care provider directly for medical advice.
- Additional information sources:
 - U.S. Centers for Disease Control and Prevention: <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>.
 - Georgia Department of Agriculture: <http://agr.georgia.gov/>.
 - U.S. Environmental Protection Agency: <http://www.epa.gov/pesticides/health/mosquitoes/>.



For more information about West Nile virus or to request assistance with a mosquito problem, call the DeKalb County Board of Health, Division of Environmental Health at 404-508-7871.