

## West Nile Virus and West Nile Encephalitis Frequently Asked Questions

### ***What is West Nile virus (WNV)?***

West Nile virus (WNV) is a virus that is spread by infected mosquitoes. The virus usually infects birds, but it can be spread to humans by mosquitoes that feed on infected birds and then bite humans. Rarely, WNV may also be acquired through blood transfusions or organ transplants, or possibly during pregnancy or from a breast-feeding mother to her infant. The virus cannot be spread by casual person-to-person contact.

Historically, West Nile virus has been found in parts of Africa, West Asia, Eastern Europe, and the Middle East. The virus was identified in the United States for the first time during 1999 and first detected in Georgia in 2001. West Nile virus is closely related to the virus that causes St. Louis encephalitis (SLE), which has caused illnesses in Georgia residents in the past.

### ***Is West Nile virus in Georgia?***

Yes. On July 16, 2001 the presence of West Nile virus was confirmed in Georgia when a dead crow from Lowndes County tested positive for the virus. Since then, hundreds of positive birds, horses, and mosquitoes have been identified in Georgia. In addition, since 2001, more than 100 people in Georgia were identified as being infected with West Nile virus. More than 15 of these people have died.

Please visit <http://dph.georgia.gov/mosquito-borne-viral-diseases> for more complete information of West Nile virus activity in Georgia in recent years, including maps.

### **How concerned should I be about West Nile virus in Georgia?**

West Nile virus rarely causes serious disease. Less than 1% of people infected with West Nile virus develop serious illness such as encephalitis (swelling of the brain) or paralysis. Persons who are older (over 50 years) or have chronic medical conditions are at greater risk of developing severe illness if infected with West Nile virus. Human infections with West Nile virus can be prevented by taking simple measures to avoid mosquito bites.

### **What measures are being taken to protect Georgia residents?**

Georgia health officials use many different methods to identify when West Nile virus is present in an area. Georgia residents are asked to report dead bird sightings to their local county health departments. Health departments may record dead bird locations to look for clusters, and pick up some of the reported birds for West Nile virus testing. Many county health departments



collect mosquitoes in certain areas to monitor population sizes and test for viruses. Horses are susceptible to becoming ill when infected with West Nile virus, so horse testing also provides useful information about where the virus is circulating. Finally, healthcare providers are encouraged to seek testing for persons with symptoms consistent with West Nile illness.

When West Nile virus or any other mosquito-borne disease is detected in Georgia, measures are taken to increase public awareness of ways to minimize mosquito exposure and prevent mosquito bites. Your county may also begin other control measures to reduce the number of larval and/or adult mosquitoes.

***What symptoms will I have if I am infected with West Nile virus?***

Symptoms usually occur 3-15 days after the bite of an infected mosquito. Most people who are infected with the West Nile virus will not have any type of illness. It is estimated that 20% of the people who become infected will develop West Nile fever, which is often characterized by fever, headache, body aches, and sometimes muscle weakness and/or rash.

The symptoms of severe infection (West Nile encephalitis or meningitis) may include headache, high fever, neck stiffness, and changes in consciousness, muscle weakness, and paralysis. It is estimated that 1 in 150 persons infected with the West Nile virus will develop a more severe form of disease.

If you have any concerns about your health, you should contact your healthcare provider.

***A mosquito bit me (or a member of my family). What should I do? Should I be tested for West Nile virus or other mosquito-borne diseases?***

- The odds of getting a mosquito-borne illness from a mosquito bite in Georgia are extremely low.
- Even if you live in an area where mosquitoes are known to carry West Nile virus or other viruses, very few mosquitoes will actually be infected and capable of transmitting the viruses to humans.
- Even if an infected mosquito bites you, your chances of becoming ill are very low. Less than 1% of humans infected with West Nile virus will develop serious illness.

There are no antibiotics or other drugs that can be taken to prevent illness after a mosquito bite. If an illness does occur after a mosquito bite, particularly with fever, confusion, muscle weakness, or severe headaches, or if your eyes become unusually sensitive to light, you should consult your physician immediately. Your healthcare provider will determine what kind of



treatment you require and whether or not you should have any specific laboratory tests performed.

**Is there a treatment for West Nile virus?**

No. There is no specific treatment, medication, or cure for illnesses caused by West Nile virus. However, the symptoms and complications of the disease can be treated. Most people who get the illness recover from it.

**Is there a vaccine for West Nile virus?**

There is no vaccine to protect humans against West Nile virus infection.

A vaccine exists to protect horses against West Nile virus. Please contact your veterinarian for information about obtaining the vaccine for your horse.

**If West Nile virus is detected in my county/town/neighborhood, should I stay indoors?**

No. The risks of acquiring a mosquito-borne disease are so low that staying indoors is not necessary. However, you can take some simple precautions while you are outside, such as wearing lightweight long sleeves and long pants and applying an insect repellent (containing either DEET, picaridin, or oil of lemon eucalyptus) according to label directions.

People who are at greatest risk of developing severe illness from West Nile virus infection, such as people with medical conditions that weaken the immune system or people who are much older, should consider staying indoors at times when mosquitoes that transmit West Nile virus are most active, usually dawn and dusk.

**Why isn't my neighborhood being sprayed for mosquitoes?**

Health officials in your county will decide whether or not to spray your community for mosquitoes. Spraying adulticides, pesticides that kill adult mosquitoes, is not the most beneficial or the most cost-effective way to control mosquito populations or mosquito-borne diseases, although it may be used along with other methods to help reduce mosquito numbers. Where possible, larvicides, pesticides that kill mosquito larvae, may be applied to catch basins and other areas that hold stagnant water. Source reduction, the removal of containers and other non-wetland mosquito breeding sites, can also be used to reduce mosquito populations and is a way in which everyone can help reduce disease risk in their yards and in their neighborhood.

***I have seen dead birds. Should I report them?***



Many species of birds die when they are infected with West Nile virus, so health officials have successfully used dead bird reports to track the spread of the virus. Please contact your county health department if you find dead birds near your home. You may find the phone number of your county health department in the government listings of your phone book or at <http://dph.georgia.gov/environmental-health>. A few of the birds may be collected and tested for West Nile virus. If your county health department asks that you submit dead birds for testing, please follow their instructions for handling the birds. Otherwise, dead birds may be disposed of by double bagging and placing them in the regular trash, or burying them three feet deep. Please call to report your bird even if it is not tested, as reports of birds that are not collected for testing are still very useful. These dead bird sightings will be recorded and combined with reports from throughout the state so that we may quickly determine where the virus is present in Georgia.

Remember that birds may die for many reasons. Some birds die of old age, some are hit by cars or run into power lines, some are considered pests and are poisoned by humans, some die from other viral or bacterial infections.

***Will the dead birds in my area make my family or me sick?***

Dead birds will not transmit West Nile virus to you or your family. This viral infection is spread to people by the bite of an infected mosquito. However, you should not handle any dead animal with your bare hands. Wear gloves or use a shovel to handle dead birds or any other dead animal.

***Where have there been infected mosquitoes, birds, and other animals?***

West Nile virus has been detected in nearly all of the United States, and in Canada and Mexico. You may find maps of the current distribution of West Nile virus in the United States on the web at: <http://westnilemaps.usgs.gov>. To see where West Nile virus has been found in Georgia, visit: <https://oasis.state.ga.us/>.

***How can I prevent myself from being infected with West Nile virus?***

The best way to prevent infections with West Nile virus and other mosquito-borne diseases is to avoid getting mosquito bites. Other viruses that are transmitted by mosquitoes, including those that cause St. Louis Encephalitis (SLE), LaCrosse Encephalitis (LAC), and Eastern Equine Encephalitis (EEE), are also found in Georgia and you can take the following precautions to protect yourself and your family against them:



- Minimize time spent outdoors when mosquitoes are biting. The mosquitoes that are more likely to carry WNV are usually active at dusk and dawn. However, some mosquitoes that bite during the day have also been known to carry WNV.
- If you go outdoors when mosquitoes are active, cover up by wearing shoes, socks, lightweight long-sleeved shirts, and long pants. Apply insect repellent on uncovered skin and under the ends of sleeves and pant legs. ALWAYS FOLLOW the INSTRUCTIONS on the LABEL of the repellent.
- The most effective repellents are those that contain the chemical DEET (N,N-diethylmetatoluamide). The concentration of DEET varies among repellents. Repellents with DEET concentrations of 30-35% are quite effective, and the effect should last about 4 hours. Lower concentrations are recommended for use on children (no more than 10% DEET). Repellents with DEET should be used sparingly on children from 2 to 6 years old. For children 2 years old and younger, contact your primary health care provider before applying repellent. The American Academy of Pediatrics states that DEET-based repellents can be used on children as young as 2 months.
- Consider remaining indoors at times when numerous mosquitoes are biting. Other substances found to be as good as DEET for repelling mosquitoes are picaridin and oil of lemon eucalyptus (<http://www.cdc.gov/ncidod/dvbid/westnile/RepellentUpdates.htm>).
- Make sure your home, porch, and patio have tight-fitting screens that keep mosquitoes out. Consider using lights that do not attract insects.
- All mosquitoes need standing water for the first stages of development. Eliminate stagnant water around your home, where mosquitoes can lay eggs, by disposing of old tin cans, jars, tires, plant pots, and any other container that can hold water. In the spring, inspect rain gutters and downspouts and remove any leaves and other debris. Stack wheelbarrows, tubs, buckets, barrels, boats or canoes, etc. upside down so that water cannot accumulate in them. Empty stagnant birdbaths, lily ponds, small wading pools, etc. at least once a week. Properly maintain backyard swimming pools to discourage the development of mosquitoes. Cover any pool not in use so rainwater and leaves do not accumulate in it. Be sure the cover does not hold pockets of water. Mosquitoes can breed in as little as ½ inch of water.





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### **Whom should I contact for more information?**

- For information about local mosquito control programs and how to report dead birds, please call your county health department. You may find the phone number in the government listings of your phone book or at <http://dph.georgia.gov/environmental-health>.
- For information about West Nile virus in livestock and animals you may visit the Georgia Department of Agriculture website at <http://www.agr.state.ga.us/>.
- For general information about West Nile virus and surveillance for mosquito-borne diseases in Georgia, call your county health department or the Georgia Department of Public Health at 404-657-2588. You may also visit the Georgia Department of Public Health website at <http://dph.georgia.gov/mosquito-borne-viral-diseases>.
- For national West Nile virus data, visit the CDC website at <http://www.cdc.gov/ncidod/dvbid/westnile>.



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