

ARBOVIRAL INFECTION Q&A

What are arboviral infections?

Arboviral infections are caused by a number of viruses transmitted by arthropods such as mosquitoes and ticks. These infections generally occur during warm weather months when mosquitoes and ticks are most active.

Who gets arboviral infections?

Anyone can get an arboviral infection, but young children and the elderly appear to be most susceptible to developing serious disease. Most people who are infected with an arbovirus do not get sick or only have flu-like symptoms.

How are arboviral infections spread?

Most arboviral infections are spread by infected mosquitoes and ticks. Fortunately, only a few types of mosquitoes and ticks are capable of transmitting the disease and only a small number of these mosquitoes and ticks are actually carrying the virus. Occasionally, migrating birds have the ability to carry viruses from one place to the other. The viruses that are spread by ticks are found in some parts of the United States, but not in Georgia.

Are arboviruses found in Georgia?

Yes. Several arboviruses are found in Georgia: Eastern equine encephalitis virus (EEE), Saint Louis encephalitis virus (SLE), West Nile virus (WNV) and LaCrosse encephalitis virus (LAC). Human infections with these arboviruses are rare.

What are the symptoms of arboviral infections?

Most human infections do not result in any symptoms. Mild cases may occur with only a slight fever and/or headache. Severe infections are marked by a rapid onset, fever, headache, muscle pain, disorientation, coma, tremors, convulsions, paralysis or death.

How soon after exposure do symptoms occur?

Symptoms usually occur 3 to 15 days after exposure to infective mosquitoes.

When and for how long is a person able to spread arboviruses?

Person to person spread of arboviruses does not occur, except through blood transfusions and organ transplants.

Does past infection with an arbovirus make a person immune?

Yes, infection with an arbovirus can provide immunity to that specific virus and perhaps to other related viruses.

A mosquito bit me. What should I do?

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 arboviruses, very few mosquitoes will actually be infected and be capable of transmitting the viruses to humans. Even if you are bitten by an infected mosquito, your chances of becoming ill are very low.

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 health care provider will determine what kind of treatment you require and whether or not you should have any specific laboratory tests performed.

What is the treatment for an infection due to an arbovirus?

Because arboviral infections are caused by viruses rather than bacteria, antibiotics are not effective for treatment. No effective antiviral drugs have yet been developed. The physician will usually attempt to relieve the symptoms of the illness, but there is no specific treatment available for arbovirus infections.

How can I prevent arboviral infections?

The best way for an individual to prevent infections with mosquito-borne diseases is to avoid getting mosquito bites. You can take the following precautions to protect yourself and your family:

- Even in the daytime, when you go outdoors, cover up by wearing shoes, socks, long-sleeved shirts, and long pants. Use mosquito repellent on exposed skin.
- Use insect repellents with no more than 30% DEET, and use sparingly. Use products containing 10% or less DEET for children. Repellents may irritate the eyes and mouth, so avoid applying repellent to the hands of children. Do NOT use products containing DEET on infants. Carefully read and follow directions on the container and wash treated skin when mosquito exposure has ended.
- Make sure your home, porch, and patio have tight-fitting screens that keep mosquitoes out.
- All mosquitoes need standing water for the first stages of development. Eliminate stagnant water around your home where mosquitoes might lay eggs by disposing of old tin cans, jars, tires, plant pots, and any other containers that can hold water. In the spring, remove any leaves and other debris from rain gutters and downspouts. 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.
- Stay indoors at dawn, dusk, and in the early evening when mosquitoes are most active.
- Note: Vitamin B and “ultrasonic” devices are NOT effective in preventing mosquito bites.

What is West Nile encephalitis?

West Nile encephalitis is an infection of the brain caused by West Nile virus, a flavivirus commonly found in Africa, West Asia, and the Middle East. Recently, West Nile Virus was discovered in the U.S. during the summer of 1999; West Nile virus was first detected in Georgia during the summer of 2001. It is closely related to St. Louis encephalitis virus.

What measures are being taken to protect Georgia residents?

The Georgia Department of Human Resources, Division of Public Health and health departments in other states have received grants from the Centers for Disease Control and Prevention (CDC) to track West Nile virus and other arboviruses. Because experience has shown that West Nile virus is often first detected in birds before it infects other animals or humans, the Georgia Department of Human Resources, Division of Public Health is working with the UGA College of Veterinary Medicine to look for the virus in birds throughout the state. Bird collection and testing is taking place, as well as testing for West Nile virus and other arboviruses in horses. The Georgia Public Health Laboratory offers human arboviral testing for patients hospitalized with symptoms of encephalitis, meningitis, and/or paralysis.

When cases of West Nile virus infection in humans are detected in Georgia, press releases are issued and public education is provided to increase awareness of personal protective measures that help prevent mosquito exposure. Your county may also begin other control measures, such as larval mosquito control to reduce mosquito populations.



Who should I contact for more information?

For general information about surveillance for arboviral infections or other vector-borne diseases in Georgia, call the Georgia Division of Public Health, Epidemiology Branch at 404-657-2588. 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.

The following web sites may be useful:

- Environmental Protection Agency's (EPA) web site for information about the use of pesticides to control mosquitoes <http://www.epa.gov/pesticides/citizens/pesticides4mosquitos.htm>
- Centers for Disease Control and Prevention, Division of Vector-Borne Infectious Diseases <http://www.cdc.gov/ncidod/dvbid/index.htm>.

