

# New York State Department of Health

## Arboviral Infections (arthropod-borne encephalitis, eastern equine encephalitis, St. Louis encephalitis, California encephalitis, Powassan encephalitis, West Nile encephalitis)

Last Reviewed: November 2006

### What are arboviral infections?

Arboviral (short for arthropod-borne) infections are caused by any number of viruses transmitted by arthropods such as mosquitoes and ticks. These infections generally occur during warm weather months, when mosquitoes and ticks are active.

### Who gets arboviral infections?

Anyone can get an arboviral infection but the elderly appear to be most susceptible. Young children may experience more severe illness with eastern equine encephalitis and certain types of California encephalitis.

### How are arboviral infections transmitted?

Most arboviral infections are spread by infected mosquitoes. Fortunately, only a few types of mosquitoes are capable of transmitting disease and only a small number of the mosquitoes will actually be carrying a virus at any one time. Occasionally, migrating birds have the ability to carry viruses from one area of the country to another; humans, however, cannot become infected by birds, only mosquitoes. Some arboviral infections, such as Powassan encephalitis, may be transmitted by infected ticks.

### What are the symptoms of arboviral infections?

Symptoms of the various types of viral infections transmitted by mosquitoes and ticks are usually similar, except for their severity. Most infections do not result in any symptoms. Mild cases may occur with only a slight fever and/or headache and bodyaches and resolve with no complications. Severe infections are marked by a rapid onset, headache, high fever, disorientation, tremors, convulsions, paralysis, coma or death.

### When do symptoms appear?

Symptoms usually occur three to 15 days after a bite from an infected mosquito or tick.

### Does past infection with an arbovirus make a person immune?

Infection with an arbovirus may provide immunity to that specific virus and perhaps to related viruses.

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

Health care providers will usually attempt to relieve the symptoms of the illness, but there is no specific treatment available for arboviral infections.

## How can arboviral infections be prevented?

To minimize exposed skin, insect repellents containing DEET can be used by persons spending time outdoors in mosquito- or tick-infested areas. Be sure to follow label directions carefully. Consider wearing long sleeves and tucking pants into socks and shirt into pants when in tick habitat or outdoors at dusk or dawn, the time of day when mosquitoes are most active. Wear light-colored clothes to spot ticks easily.

To reduce the mosquito population around your home and property, reduce or eliminate all standing water:

- Dispose of tin cans, plastic containers, ceramic pots or similar water-holding containers.
- Remove and recycle all discarded tires on your property. Used tires are a significant mosquito-breeding site.
- Drill holes in the bottoms of recycling containers that are kept outdoors.
- Make sure roof gutters drain properly and clean clogged gutters in the spring and fall.
- Remove leaf debris from yards and gardens.
- Turn over wading pools and wheelbarrows when not in use.
- Change the water in birdbaths twice weekly.
- Clean vegetation and debris from edges of ponds.
- Clean and chlorinate swimming pools, outdoor saunas and hot tubs.
- Drain water from pool covers.
- Use landscaping to eliminate standing water that collects on your property.
- Make sure window and door screens fit properly and are in good condition.

Revised: August 2004