



Mosquito-Borne Illnesses **Updated September 5, 2002**

West Nile virus

West Nile (WN) virus disease is caused by a mosquito-borne virus commonly found in Eastern Europe, Africa, West Asia, Middle East, and more recently in the United States (1999), including Florida (2001). West Nile virus can infect people, horses and many types of birds (it has been found in more than 110 species). A number of mosquito species have been identified with WN virus. Mosquitoes transmit the virus from infected birds to humans. The incubation period ranges from 3 to 14 days. Most WN virus infections cause no disease or are mild. Approximately 1 in 150 infections will result in severe neurological disease. The most significant risk factor for developing severe neurological disease is being over age 50.

Eastern Equine Encephalomyelitis

Eastern equine encephalitis (EEE) is a viral disease that attacks the central nervous system of people and horses (there is a vaccine for horses). It is also spread by mosquitoes, which transmit the disease from infected birds. In Florida, the principle vector is the *Culiseta melanura* mosquito. In the U.S., EEE is the rarest of the mosquito-borne arboviral infections; however, the illness is fatal in 30 percent of cases, and even higher rates are observed in the very young and very old.

St. Louis Encephalitis

St. Louis encephalitis (SLE) is another mosquito-borne viral disease that causes inflammation and swelling of the brain in people. In an average year, Florida typically experiences few SLE cases. Outbreaks have occurred in Florida, and tend to occur every seven to ten years. A large outbreak in 1990 resulted in 223 reported cases and 13 deaths. A 1997 outbreak resulted in nine cases with one death.

Symptoms of Arboviral Disease

WN, EEE and SLE can cause fever, headache, stiff neck, nausea, vomiting, rash, swollen lymph nodes, fatigue, dizziness, weakness, confusion and in the most severe cases coma and death.

Treatment for Arboviral Disease

Treatment is supportive for severe cases, often involving hospitalization, intravenous fluids, respiratory support, and prevention of secondary infections. Potential new treatments are under development.

Prevention: DOH recommends:

- Avoid outdoor activities when mosquitoes are active, especially at dusk and dawn;
- If you must be outdoors when mosquitoes are active, cover up by wearing shoes, socks, long pants and a long-sleeved shirt;

(MORE)

Page 2, Mosquitoes



- Use mosquito repellent containing DEET (N,N-Diethyl-meta-toluamide) according to the manufacturer's directions; and
- Eliminate stagnant water in birdbaths, ponds and other receptacles in which mosquitoes might breed;

Current Facts

Currently (September 5, 2002), Florida has two human cases of West Nile virus (Sumter and Miami-Dade residents). Eleven (11) counties are under a Medical Alert: Brevard, Escambia, Flagler, Lake, Marion, Orange, Oseola, Seminole, St. Johns, Sumter and Volusia.

Florida has one human case of EEE that was reported in June, a nine-year-old boy from Highlands County.

Last Year

At this time last year, Florida had 4 human cases of WN and 3 human cases of EEE, with 34 Florida counties under a Medical Alert.