



## EPI UPDATE

A Publication by the Bureau of Epidemiology

**\*Special Edition\***

**September 5, 2002**

*"The reason for collecting, analyzing and disseminating information on a disease is to control that disease. Collection and analysis should not be allowed to consume resources if action does not follow."*

*--Foege WH et al. Int. J of Epidemiology 1976; 5:29-37.*

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**\*Under Construction\***

The Bureau of Epidemiology is currently working with the Department of Health's Office of Communication and Program Marketing to design a new look for the Epi-Update. The "renaissance" version will also include renewal of the weekly disease table and a provide a weekly calendar of important public health events. Our new look should be available for the next issue.

Don Ward  
Bureau of Epidemiology



Please print out this material and share with epidemiology staff, county health department directors, administrators, medical directors, nursing directors, environmental health directors and others with an interest in information of this type. Thank you.

The Bureau of Epidemiology is available 24 hours a day, 7 days a week for consultation at our main number (SunCom 205-4401 or 850/245-4401) **PLEASE NOTE:** Consultation after 5 p.m. & on weekends is intended for emergencies.

● **The Department of Health has a home on the World Wide Web at <http://www.doh.state.fl.us>**

For information on diseases and conditions of public health importance go to [MyFlorida.com](http://MyFlorida.com), click on Health and Human Services, then Consumers--Diseases and Conditions.

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**For Immediate Release**  
September 5, 2002

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**SECOND FLORIDA TRANSPLANT RECIPIENT TESTS POSITIVE FOR  
WEST NILE VIRUS INFECTION**

*--Officials conducting thorough, coordinated investigation to determine the source of infection--*

**TALLAHASSEE**—Florida Department of Health (DOH) officials announced today that their ongoing epidemiologic investigation has led to the confirmation of a second Florida transplant patient developing West Nile (WN) virus infection – a 71-year-old resident of Miami-Dade County currently convalescing at a family residence in Jacksonville. The patient recently received an organ transplant in Jacksonville from the same Georgia donor as the 63-year-old Miami-Dade County resident that was confirmed last week as having the virus, prompting DOH officials to test the individual for WN virus infection.

“Our team of epidemiologists, in conjunction with members of the Georgia Department of Health and the CDC (Centers for Disease Control and Prevention), are in the midst of a thorough investigation to identify any possible causes of infection in these organ recipients. We are committed to obtaining all information that we can collect to help us understand this relatively new disease and its mode of transmission,” said DOH Secretary John O. Agwunobi, M.D., M.B.A. “Even though this case does not appear to be related to a mosquito bite, people should continue to take precautionary measures.”

Due to West Nile (WN) virus detection in birds and other animals, medical alerts are currently in effect for Brevard, Escambia, Flagler, Lake, Marion, Orange, Osceola, Seminole, St. Johns, Sumter and Volusia counties. Health officials want all citizens living in the 11 counties under the Medical Alert to take precautions against mosquito bites.

Agwunobi recommends people take the following precautionary measures to guard against mosquito bites:

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

The Department of Health laboratories provide testing services for physicians treating patients with clinical signs of mosquito-borne (arboviral) disease. These signs may include headache, fever, fatigue, dizziness, weakness and confusion. Physicians should submit serum and, if available, cerebrospinal fluid samples to either the Tampa or Jacksonville Department of Health laboratories. People over the age of 50 are at the greatest risk of having severe disease from an arbovirus infection.

DOH continues to conduct statewide surveillance for arboviruses, including West Nile (WN) virus, Eastern Equine Encephalomyelitis (EEE) and St. Louis Encephalitis (SLE). Residents of Florida are encouraged to report dead birds by calling the West Nile Virus Hotline at 1-800-871-9703, or via the Web site [www.wld.fwc.state.fl.us/bird/](http://www.wld.fwc.state.fl.us/bird/). For more information on WN virus, visit the DOH Bureau of Epidemiology's Web site at [www.doh.state.fl.us](http://www.doh.state.fl.us) (click on Epidemiology, then Health Topics), call the Bureau's hotline at 1-888-880-5782 for recorded information, or call your local county health department.

## 2. 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;
- 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.