

MOSQUITO–BORNE ENCEPHALITIS /ENCEPHALOMYELITIS

What is mosquito-borne encephalitis?

Mosquito-borne encephalitis/encephalomyelitis refers to viral diseases that are transmitted by mosquitoes. The term encephalitis refers to an inflammation of the brain; encephalomyelitis refers to an inflammation of the brain and spinal cord. In California, West Nile virus (WNV), St. Louis encephalitis (SLE), and western equine encephalomyelitis (WEE) are the three most important viral mosquito-borne viruses that can cause encephalitis/encephalomyelitis. The viruses that cause these diseases are maintained in nature through a mosquito-bird-mosquito cycle. Birds that are common throughout California, such as the American Crow, English house sparrow and the house finch, are important carriers of these viruses. Horses are also particularly susceptible to infection with WNV and WEE, but there is a vaccine for horses to prevent these diseases. Detailed information on WNV can be found at www.westnile.ca.gov. The remainder of this document discusses SLE and WEE.

Where do SLE and WEE occur?

Both of these diseases appear to be endemic (always present) in many regions of California, though human cases are rarely reported. WEE also occurs in the western and central United States (U.S.), Canada, and parts of South America. SLE is found in most of the U.S., Canada, Trinidad, Jamaica, Panama, and Brazil.

How do you get these diseases?

Humans get the viruses from the bite of an infected mosquito that earlier acquired the virus from an infective bird or other animal. Humans can get sick but a mosquito feeding on an infected human will not pick up the infection to transmit to another person.

What are the symptoms of these diseases?

Symptoms of these diseases develop within 5 to 15 days after the bite of an infected mosquito. Initial symptoms often resemble the flu with fever and headache being most common. Severe cases can result in disorientation, coma, and even death. WEE is most severe in infants, while SLE is most severe in the elderly.

What can I do to keep from getting these diseases?

Avoid mosquito bites. If possible, wear long pants of a heavy material, use mosquito repellent, stay indoors at dawn and dusk, and keep screens on windows and doors in good repair. In addition, identify and eliminate standing water sources that can be mosquito-breeding areas around the home.

Where can I find more information on mosquito-borne encephalitis?

The Centers for Disease Control and Prevention has information available at their website http://www.cdc.gov/ncidod/diseases/list_mosquitoborne.htm.