Dengue Fever

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Dengue or "break-bone fever" is caused by any of four closely related flavivirus serotypes (Dengue-1, Dengue-2, Dengue-3, Dengue-4) that are transmitted to humans by *Aedes* mosquitoes.[1] Clinical symptoms range from a mild febrile syndrome to an incapacitating illness that typically involves sudden onset of high-grade fever, frontal headache , retro-orbital pain , myalgias, arthralgias, often with a maculopapular rash.[2] Symptoms tend to be milder in infants and young children and may include a rash that makes the illness clinically indistinguishable from measles or rubella. Patients that develop dengue hemorrhagic fever (DHF) usually have symptoms that resemble classical dengue or other viral syndromes initially, then they become restless, lethargic, show signs of circulatory failure and develop a variety of hemorrhagic manifestations.[2,3] These patients can evolve to dengue shock syndrome (DSS) which includes restlessness, cold clammy skin, rapid weak pulse and narrowing of pulse pressure and/or hypotension, and death.

The vectors for dengue are the day-biting mosquitoes *Aedes aegypti* and *Ae. albopictus* which have become firmly established in Florida. Both of these species live in close association with humans particularly in areas with deteriorated housing, inadequate sanitation and poor drainage. The former is highly domesticated, and utilizes artificial containers as larval habitats, while the latter is basicaly a treehole and leaf axil dwelling species that also uses artificial containers.[1,,2] Dengue occurs chiefly in tropical and subtropical areas of the world and presents some risk for travelers. The risk is greatest in the Indian subcontinent**,** Southeast Asia, Southern China, Central and South America (except Chile, Paraguay, and Argentina), the Caribbean (except Cuba and the Cayman Islands, Mexico and Africa) and somewhat lower in Taiwan, the Pacific Islands, Middle east and Northern Australia.[4] In the past 15 years dengue transmission has been increasing in countries of the Caribbean Basin, and epidemics are occurring at frequent intervals.

In 1921 and 1922 dengue epidemics in Jacksonville and Tampa/ St. Petersburg accounted for over 4000 cases. Dengue sporadically caused public panic until the mid 1930s when ditching and other mosquito control practices began taking effect. The last major statewide outbreak occurred between July and December in 1934 when 2015 cases were reported. Most of these occurred in major metropolitan areas, with south Florida was most dramatically affected (Dade and Broward Counties =1476 cases). Only 83 cases of dengue were reported between in the next decade (1935-1944) and during the next one-half century (1945-1994) the Florida Morbidity Reports documented another 41 cases. However, a total of 5 cases have been reported during 1995 and 1996. None of the dengue cases reported since the early 1960's have been identified as being locally-acquired. Still, the isolation of dengue virus in 1991 from a missionary returning from Nicaragua suggests that outbreaks of dengue can recur, if *Aedes* vectors feed upon viremic travelers from endemic areas.[5]

References **10/26/99**

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