

What is dengue fever?

Dengue fever is a disease caused by a family of viruses that are transmitted by mosquitoes. It is an acute illness of sudden onset that usually follows a benign course with symptoms such as headache, fever, exhaustion, severe muscle and joint pain, swollen lymph nodes(lymphadenopathy), and rash. The presence of fever, itchy rash, and headache (the "dengue triad") is characteristic of dengue. Other signs of dengue fever include bleeding gums, severe pain behind the eyes, and red palms and soles.



Picture of Aedes albopictus mosquito

Dengue (pronounced DENG-gay) can affect anyone but tends to be more severe in people with compromised immune systems. Because it is caused by one of five serotypes the dengue virus, it is possible to get dengue fever multiple times. However, an attack of dengue produces immunity for a lifetime to that particular viral serotype to which the patient was exposed.

Dengue goes by other names, including "breakbone fever" or "dandy fever." Victims of dengue often have contortions due to the intense joint, muscle, and bone pain, hence the name breakbone fever. Slaves in the West Indies who contracted dengue were said to have dandy fever because of their postures and gait.

Dengue hemorrhagic fever is a more severe form of the viral illness. Symptoms include headache, fever, rash, and evidence of hemorrhage in the body. Petechiae (small red spots or purple splotches or blisters under the skin), bleeding in the nose or gums, black stools, or easy bruising are all possible signs of hemorrhage. This form of dengue fever can be life-threatening and can progress to the most severe form of the illness, dengue shock syndrome. **Continue Reading**

What geographic areas are at high risk for contracting dengue fever?

Dengue is prevalent throughout the tropics and subtropics. Outbreaks have occurred recently in the Caribbean, including Puerto Rico, the U.S. Virgin Islands, Cuba, and Central America. Cases have also been imported via tourists returning from areas with widespread dengue, including Tahiti, Singapore, the South Pacific, including the Philippines, Southeast Asia, the West Indies, India, and the Middle East (similar in distribution to the areas of the world that harbor malaria and yellow fever). Dengue is now the leading cause of acute febrile illness in U.S. travelers returning from the Caribbean, South America, and Asia.

- New Delhi, India, is reporting an outbreak of dengue fever, with 1,872 testing positive for the illness as of September 2015.
- In American Samoa, there have been 370 cases of dengue reported from May 2015 to September 2, 2015; 133 people have been hospitalized.
- In 2015, two non-native species of mosquito were found in California, including the *Aedes aegypti* mosquito, which can transmit dengue. No cases of dengue have been reported yet.
- Thailand reported the worst dengue outbreak in 20 years, with 126 deaths and 135,344 people infected with the virus, in October 2013.
- In 2011, Bolivia, Brazil, Columbia, Costa Rica, El Salvador, Honduras, Mexico, Peru, Puerto Rico, and Venezuela reported a large number of dengue cases. Paraguay reported a dengue fever outbreak in 2011, the worst since 2007. Hospitals were overcrowded, and patients had elective surgeries canceled due to the outbreak.



Picture of dengue fever distribution map

The U.S. Centers for Disease Control and Prevention (CDC) reports that from 1946 to 1980, no cases of dengue acquired in the continental United States were reported. Since 1980, a few locally acquired U.S. cases have been confirmed along the Texas-Mexico border, temporally associated with large outbreaks in neighboring Mexican cities.

A 2009 outbreak of dengue fever in the Florida town of Key West involved three patients who did not travel outside of the U.S. contracted the virus. Subsequent testing of the population of Key West has shown that up to 5% of the people living in the area have antibodies to dengue. In total, 28 people were diagnosed with dengue fever in this outbreak. In 2015, 210 people were diagnosed with dengue in Hawaii. This is the largest outbreak in Hawaii since 2001, when 122 people were diagnosed with dengue.

Dengue fever is common in at least 100 countries in Asia, the Pacific, the Americas, Africa, and the Caribbean. Thailand, Vietnam, Singapore, and Malaysia have all reported an increase in cases.

According to the CDC, there are an estimated 400 million cases of dengue fever with several hundred thousand cases of dengue hemorrhagic fever requiring hospitalization each year. Nearly 40% of the world's population lives in an area endemic with dengue. The World Health Organization (WHO) estimates 22,000 deaths occur yearly, mostly among children. **Continue Reading**

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