

Dengue and Dengue Hemorrhagic Fever

Frequently Asked Questions

What is dengue?

Dengue (pronounced den' gee) is a disease caused by any one of four closely related viruses (DEN-1, DEN-2, DEN-3, or DEN-4). The viruses are transmitted to humans by the bite of an infected mosquito. In the Western Hemisphere, *Aedes aegypti* is the most important transmitter or vector of dengue viruses, although a 2001 outbreak in Hawaii was transmitted by *Aedes albopictus*. It is estimated that there are over 100 million cases of dengue worldwide each year.

What is dengue hemorrhagic fever (DHF)?

DHF is a more severe form of dengue. It can be fatal if unrecognized and not properly treated. DHF is caused by infection with the same viruses that cause dengue. With good medical management, mortality due to DHF can be less than 1%.

How are dengue and dengue hemorrhagic fever (DHF) spread?

Dengue is transmitted to people by the bite of an *Aedes* mosquito that is infected with a dengue virus. The mosquito becomes infected with dengue virus when it bites a person who has dengue or DHF and after about a week can transmit the virus while biting a healthy person. Dengue cannot be spread directly from person to person.

What are the symptoms of dengue/dengue hemorrhagic fever?

The principal symptoms of dengue are high fever, severe headache, backache, joint pains, nausea and vomiting, eye pain, and rash. Generally, younger children have a milder illness than older children and adults.

Dengue hemorrhagic fever is characterized by a fever that lasts from 2 to 7 days, with general signs and symptoms that could occur with many other illnesses (e.g., nausea, vomiting, abdominal pain, and headache). This stage is followed by hemorrhagic manifestations, tendency to bruise easily or other types of skin hemorrhages, bleeding nose or gums, and possibly internal bleeding. The smallest blood vessels (capillaries) become excessively permeable ("leaky"), allowing the fluid component to escape from the blood vessels. This may lead to failure of the circulatory system and shock, followed by death, if circulatory failure is not corrected.

If you have any concerns about your health, you should contact your healthcare provider.



What is the treatment for dengue?

There is no specific medication for treatment of a dengue infection. Persons who think they have dengue should use analgesics (pain relievers) with acetaminophen and avoid those containing aspirin. They should also rest, drink plenty of fluids, and consult a physician.

What is the treatment for dengue hemorrhagic fever (DHF)?

As with dengue, there is no specific medication for DHF. It can however be effectively treated by fluid replacement therapy if an early clinical diagnosis is made. Hospitalization is frequently required in order to adequately manage DHF. Physicians who suspect that a patient has DHF may want to consult the Dengue Branch at CDC, for more information.

Is there a vaccine for dengue/dengue hemorrhagic fever?

There is no vaccine to protect humans against Dengue virus infection.

Where can outbreaks of dengue occur?

Outbreaks of dengue occur primarily in areas where *Aedes aegypti* (sometimes also *Aedes albopictus*) lives. This includes most tropical urban areas of the world. Dengue viruses may be introduced into areas by travelers who become infected while visiting other areas of the tropics where dengue commonly exists. (See map at <http://www.who.int/csr/disease/dengue/impact/en/>).

How concerned should I be about dengue in Georgia?

Dengue is extremely rare in Georgia. Less than 5 cases of dengue are reported in Georgia each year. All cases had recent international travel history. There has never been a case of locally-acquired dengue reported in Georgia.

How can I prevent myself from being infected with dengue?

For travelers to areas with dengue, as well as people living in areas with dengue, the risk of being bitten by mosquitoes indoors is reduced by utilization of air conditioning or windows and doors that are screened. Proper application of mosquito repellents containing 20% to 30% DEET as the active ingredient on exposed skin and clothing decreases the risk of being bitten by mosquitoes. The risk of dengue infection for international travelers appears to be small, unless an epidemic is in progress.

Whom should I contact for more information?

- For general information about dengue and surveillance for mosquito-borne diseases in Georgia, call your county health department or the Georgia Department of Public Health at 404-657-2588. You may also visit the Georgia Department of Public Health website at <http://dph.georgia.gov/zoonoticvector-borneinfestations>





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- For national dengue virus data, visit the CDC website at <http://www.cdc.gov/dengue/> or contact:

Centers for Disease Control and Prevention, Dengue Branch
2 Calle Cañada
San Juan, Puerto Rico 00920-3860
Telephone: (787) 706-2399; FAX: (787) 706-2496.



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