

What is dengue?

Dengue is a disease caused by any one of four closely related dengue viruses. The viruses are transmitted to humans by the bite of an infected mosquito. In the Western Hemisphere, the *Aedes aegypti* mosquito is the most important transmitter or vector of dengue viruses.

Who gets dengue?

Dengue is transmitted to people by the bite of an infected yellow fever mosquito (*Aedes aegypti*) or the Asian tiger mosquito (*Aedes albopictus*), which are found in tropical and temperate zones throughout the world.

How is dengue spread?

In order for transmission to occur, the mosquito must feed on a person during a 5-day period when large amounts of virus are circulating in the person's blood; this period usually begins before the person develops illness symptoms. Some people will not have significant symptoms but can still infect mosquitoes. Once the virus enters the mosquito, the virus will then require an additional 8-12 days incubation before it can then be transmitted by mosquito bite to another human. The mosquito remains infected for the remainder of its life, which might be days or a few weeks. In rare cases dengue can be transmitted in organ transplants or blood transfusions from infected donors, and there is evidence of transmission from an infected pregnant mother to her fetus. But in the vast majority of infections, a mosquito bite is responsible.

What are the symptoms of dengue?

The major symptom of dengue is high along with severe headache, severe pain behind the eyes, joint pain, muscle and/or bone pain, rash, mild bleeding of the nose or gums, easy bruising, a low white cell count, and a low platelet count. Persons who have been exposed to one variety of dengue virus and are then exposed to a different variety of dengue virus may develop what is called dengue hemorrhagic fever (DHF). This occurs 3 to 7 days after symptoms began. DHF may be accompanied by several symptoms including severe abdominal pain or persistent vomiting, red spots or patches on the skin, bleeding from nose or gums, vomiting blood, black or tarry stools (feces, excrement), drowsiness or irritability, pale, cold, or clammy skin, and difficulty breathing.

How soon after exposure do symptoms appear?

Symptoms of dengue fever infection usually begin 4-7 days after the infectious mosquito bite and typically last 3-10 days.

How is dengue diagnosed?

Laboratory diagnosis of suspected dengue specimens involves using serological tests starting five days after illness onset to measure antibody response. Dengue can also be diagnosed by testing whole blood samples by RT-PCR to isolate the virus (detect the viral RNA). This test is the most accurate and can potentially detect the virus as late as five days after the onset of illness, but is most reliable if the blood is collected and tested within the first two days after illness onset.

What is the treatment for dengue?

Persons suffering from dengue should consult a physician for care. There is no specific medication for treatment of a dengue infection other than supportive care. Due to potential for bleeding problems, persons who think they have dengue should use analgesics (pain relievers) with acetaminophen and avoid those containing ibuprofen, Naproxen, aspirin or aspirin containing drugs. They should also rest, drink plenty of fluids to prevent dehydration, and avoid mosquito bites while febrile.

How can dengue be prevented?

In Virginia, the yellow fever mosquito is uncommon, but Asian tiger mosquitoes are extremely common and they breed exclusively in containers of water. The best way to reduce the local tiger mosquito population is to eliminate all the places where this mosquito lays her eggs, such as any containers that hold water around the home (e.g., old buckets, plastic tubs, flower pot dishes, unscreened rain barrels, boats flooded with rainwater, old tires, etc.). The adult mosquitoes like to enter homes and bite indoors, so good screening on windows and doors is essential. To protect yourself, use repellent on your skin while outdoors or, when possible, wear long sleeves and pants for additional protection.

How can I get more information about dengue?

- If you have concerns about dengue, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/local-health-districts/>.
- Visit the Centers for Disease Control and Prevention website at <https://www.cdc.gov/dengue/>.

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