

Dengue Fever Frequently Asked Questions (FAQ) GENERAL QUESTIONS

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What is dengue fever?

Dengue fever is a viral illness spread to people primarily by *Aedes* mosquitoes the saem mosquitoes that spread <u>Zika</u> and <u>chikungunya</u>). There are four closely related dengue viruses (DENV 1, DENV 2, DENV 3, and DENV 4). These viruses are spread to humans by the bite of an infected mosquito. The disease occurs mainly in tropical Asia, Africa, the Caribbean, and the South Pacific. It is most common during the rainy season in areas infested with infected mosquitoes. Sometimes, persons arriving from other countries may enter the United States with dengue fever and infect local mosquitoes, as happened in Hawaii in 2001 and 2011. The current 2015 Hawaii Island outbreak involves DENV serotype 1.

How do you get it?

The dengue virus is spread through the bite of infected *Aedes* mosquitoes, which are found throughout Hawaii. A mosquito can become infected if it feeds on someone who is already infected with the virus. This is why it is so important to stay away from mosquitoes when you are infected. When an infected mosquito bites a new person, that mosquito can transmit the dengue virus to that new person. Dengue CANNOT be spread directly from person to person. It is estimated that there are over 100 million cases of dengue worldwide each year.

What are the symptoms of dengue fever?

The symptoms of dengue fever include sudden onset of fever; severe headaches; eye, joint, and muscle pain; and rash. The rash usually appears on the hands, arms, legs and feet 3 to 4 days after the fever begins. Minor bleeding problems can also occur. The symptoms usually go away completely within 1 to 2 weeks. Sometimes, people with dengue fever have blood clotting problems. When this happens, the illness is called severe dengue. Severe dengue is a very serious illness with abnormal bleeding and very low blood pressure (shock).

When do symptoms start?

The symptoms usually start 5 to 7 days after being bitten by infected mosquitoes, but the onset can range from 3 – 14 days.

How does your doctor or other healthcare provider determine if you have contracted dengue fever?

Your healthcare provider will consider if your symptoms are what would be expected for dengue fever. If that is likely, then your doctor will contact DOH to request and coordinate testing of your blood for the virus (if within 7 days from the start of your symptoms) or antibodies (if greater than 7 days from the start of your symptoms).

For the duration of the dengue fever outbreak, dengue diagnostic tests are being conducted by the DOH State Laboratories on Oahu for free (although the clinical laboratory where your blood is drawn may charge a nominal processing fee for the visit, blood draw, etc.). Public and private healthcare facilities send patient samples to the DOH State Laboratories to be tested for dengue on a daily basis, and the turnaround time for conducting these tests there is typically less than one business day after receiving the patient sample.

In the absence of an outbreak, testing is normally sent to and completed by Mainland commercial labs.

Is it possible to be infected with dengue virus but have no symptoms?

Yes. As many as 50-75% of all dengue-infected people have no clinical signs or symptoms of the disease. Some infected people experience fever but their other symptoms are mild and non-specific, making their dengue infection difficult to diagnose. Ill persons who suspect they have dengue should see a healthcare provider.

Can people who are infected but have no symptoms spread the virus to mosquitoes?

Some evidence suggests that it is possible for people with no symptoms (asymptomatic) but infected with dengue virus to transmit the virus to mosquitoes who bite them, although the role of asymptomatic transmission in dengue-affected areas is still unclear. Such risk makes it all the more important that everyone take steps against mosquitoes (e.g., eradicating mosquito breeding grounds, covering up exposed parts of the body, and using insect repellent) to avoid being bitten and infected in the first place.

What is the treatment for dengue fever?

There is no specific treatment to treat dengue fever. It is treated by addressing the symptoms:

- a. Get plenty of bed rest.
- b. Drink fluids to prevent hydration.
- c. Take medicine such as acetaminophen (Tylenol®) or paracetamol to reduce fever and pain. Do NOT take aspirin and other non-steroidal anti-inflammatory drugs (for example, ibuprofen such as Advil® or Motrin®) because they can make bleeding problems worse.
- d. If you are taking medicine for another medical condition, talk to your healthcare provider before taking any other medication.
- e. Avoid being bitten by mosquitoes during the first week of illness, to prevent the spread of dengue to mosquitoes which may then infect other people.

There is currently no vaccine for dengue fever approved for use in the United States. Individuals with dengue should seek out medical care.

Do pregnant women or breastfeeding mothers need to take extra precautions?

It is possible for a pregnant woman who is infected with dengue virus to infect her unborn baby or her newborn baby at birth. It is especially important that pregnant mothers receive proper medical attention if infected with the dengue virus. Like everyone else, pregnant women should focus on avoiding becoming infected by getting rid of standing water where mosquitoes can breed, covering up exposed areas of the body to avoid being bitten, and using repellent containing DEET, picaridin, IR3535, or oil of lemon eucalyptus, which are approved for pregnant women.

The risk of a mother passing the virus to her newborn through breastmilk is considered low, and the health benefits of breastfeeding are much greater than the likelihood of spreading disease. Breastfeeding mothers should talk with their pediatrician about concerns or questions they have regarding breastfeeding and dengue risk.

If you get dengue fever once, can you get it again?

Yes. There are four major types of dengue viruses (DENV 1, DENV 2, DENV 3, and DENV 4). Having dengue fever with one type of dengue virus will not protect you from the other three types.

If you want to get tested for dengue fever after more than a week has passed from the time you were ill, an antibody test can determine whether you were previously infected with dengue. However, determining which dengue virus type you had is not possible after the first week of illness.

How can you keep from getting it?

- When traveling to areas that have dengue fever, try to avoid exposure to mosquitoes.

 Aedes mosquitoes are usually most active in the early morning hours after daybreak, in the late afternoon before dark, and any time during the day when indoors or in shady areas.
- Make sure screens on windows and doorways don't have holes.
- Mosquito netting over beds may be helpful if you tend to take naps during the early morning and evening hours or during the day when these mosquitoes are active.

- Use mosquito repellents with 20-30% DEET and wear appropriate clothing, such as long-sleeved shirts and long pants to reduce exposure to mosquito bites.
- Mosquitoes like dark colors; if possible, wear white or light colored clothing when you are likely to be exposed to biting mosquitoes.

Do people who have contracted dengue fever need to be quarantined?

Dengue fever cases do NOT require quarantine, because dengue fever is not spread from person to person. However, people infected with dengue must be careful to avoid mosquitoes.

The most effective way to prevent future cases is to get rid of mosquitoes which might bite infected persons and then spread the virus to uninfected persons. Quarantines are extreme measures used for serious fatal diseases spread by direct human-to-human contact.