

## **DENGUE FEVER**

### **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 [headache](#), [fever](#), exhaustion, severe joint and [muscle pain](#), swollen glands ([lymphadenopathy](#)), and [rash](#). The presence (the "dengue triad") of fever, rash, and headache (and other pains) is particularly characteristic of dengue.

Dengue goes by other names, including "breakbone" or "dandy fever." Victims of dengue often have contortions due to the intense joint and muscle 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 and Dengue shock syndrome is a more severe form of the viral illness. Manifestations include headache, fever, rash, and evidence of hemorrhage in the body. [Petechiae](#) (small red or purple 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 or even fatal.

### **How is dengue fever contracted?**

The virus is contracted from the bite of a striped *Aedes aegypti* mosquito that has previously bitten an infected person. The mosquito flourishes during rainy seasons but can breed in water-filled flower pots, plastic bags, and cans year-round. One mosquito bite can inflict the disease.

The virus is not contagious and cannot be spread directly from person to person. There must be a person-to-mosquito-to-another-person pathway.

### **What are the signs and symptoms of dengue fever?**

After being bitten by a mosquito carrying the virus, the incubation period ranges from 3 to 15 (usually 5 to 8) days before the signs and symptoms of dengue appear. Dengue starts with chills, headache, pain upon moving the eyes, and low backache. Painful aching in the legs and joints occurs during the first hours of illness. The temperature rises quickly as high as 104° F (40° C), with relative low heart rate ([bradycardia](#)) and [low blood pressure](#) (hypotension). The eyes become reddened. A flushing or pale pink rash comes over the face and then disappears. The glands (lymph nodes) in the neck and groin are often swollen.

Fever and other signs of dengue last for two to four days, followed by rapid drop in temperature (defervescence) with profuse sweating. This precedes a period with normal temperature and a sense of well-being that lasts about a day. A second rapid rise in temperature follows. A characteristic rash appears along with the fever and spreads from the extremities to cover the entire body except the face. The palms and soles may be bright red and swollen.

## **How is dengue fever treated?**

Because dengue is caused by a virus, there is no specific medicine or antibiotic to treat it. For typical dengue, the treatment is purely concerned with relief of the symptoms (symptomatic). Rest and fluid intake for adequate hydration is important. Aspirin and [nonsteroidal anti-inflammatory drugs](#) should be avoided. [Acetaminophen](#) (Tylenol) or Crocin and [codeine](#) may be given for severe headache and for the joint and muscle pain ([myalgia](#)).

## **What is dengue hemorrhagic fever?**

Dengue hemorrhagic fever (DHF) is a specific syndrome that tends to affect children under 10. It causes [abdominal pain](#), [hemorrhage](#) (bleeding), and circulatory collapse ([shock](#)). DHF is also called dengue shock syndrome.

DHF starts abruptly with high continuous fever and headache. There are respiratory and intestinal symptoms with [sore throat](#), cough, nausea, vomiting, and abdominal pain. Shock occurs two to six days after the start of symptoms with sudden collapse, cool, clammy extremities (the trunk is often warm), weak pulse, and blueness around the mouth (circumoral cyanosis).

In DHF, there is bleeding with easy bruising, blood spots in the skin (petechiae), spitting up blood (hematemesis), blood in the stool (melena), bleeding gums, and [nosebleeds](#) (epistaxis). [Pneumonia](#) is common, and inflammation of the heart ([myocarditis](#)) may occur in some cases.

Patients with DHF must be admitted to a hospital and monitored closely for the first few days since shock may occur or recur precipitously. Cyanotic (bluish) patients are given oxygen. Vascular collapse (shock) requires immediate fluid replacement. Blood transfusions or platelet transfusion may be needed to control bleeding.

The mortality, or death rate, with DHF is significant. It ranges from 6%-30%. Most deaths occur in children. Infants under one year of age are especially at risk of dying from DHF.

## **Diagnosis of Dengue Fever**

Dengue fever is diagnosed by classical triad of symptoms and signs and confirmed by a blood test by doing Dengue ELISA TEST for Igg and Igm. It can also be confirmed by PCR for virus causing Dengue Fever.

## **How can dengue fever be prevented?**

The transmission of the virus to mosquitoes must be interrupted to prevent the illness. To this end, patients are kept under mosquito netting until the second bout of fever is over and they are no longer contagious.

The prevention of dengue requires control or eradication of the mosquitoes carrying the virus that causes dengue. In nations plagued by dengue fever, people are urged to empty stagnant water from old tires, trash cans, and flower pots. Governmental initiatives to decrease mosquitoes also help to keep the disease in check but have been poorly effective. For personal protection wear long sleeves shirt and pants, use mosquitoes repellent spray like DDT etc

There is currently no vaccine available for dengue fever. There is a vaccine undergoing clinical trials, but it is too early to tell if it will be safe or effective.