



DENGUE FEVER

This article was prepared to provide more information about Dengue Fever and Dengue Hemorrhagic Fever

DENGUE FEVER WARNING – An April 2011 news article cautioned that the Medical Science’s National Institute of Health had warned that this year’s weather changes could lead to an outbreak of dengue fever.

DENGUE FEVER OUTBREAK – A July 2011 news article stated the Ministry of Health is warning of a dengue fever outbreak after finding more than 20,000 people had been hit with the disease during the past 6 months and 13 of them had died. Further, that Clinical Professor Siripen Kalayanarooj of the Queen Sirikit National Institute of Child Health said the number of cases due to dengue infection has drastically increased among children aged under 1 year old and elderly people during the past few years.

The above warnings were issued by Thai health authorities because of an increase in the number of cases for Dengue Fever in the first half of this year – Although considered separate from Dengue Fever, a more serious infection is Dengue Hemorrhagic Fever which can be fatal, especially in the elderly or infant children. As a result, this article was prepared to provide more information on what it is, how it is transmitted, symptoms, and treatment. At the onset, the symptoms for Dengue Fever and Dengue Hemorrhagic Fever are the same. Mild cases of Dengue Fever may not require hospitalization, but you may wish to consult with your doctor as to the appropriate treatment.

INFORMATION ABOUT DENGUE FEVER

The US Center for Disease Control (CDC) notes that with more than one-third of the world’s population living in areas at risk for transmission, dengue infection is a leading cause of illness and death in the tropics and subtropics. As many as 100 million people are infected yearly. Dengue is caused by any one of four related viruses transmitted by mosquitoes. There are not yet any vaccines to prevent infection with dengue virus and the most effective protective measures are those that avoid mosquito bites. **When infected, early recognition and prompt supportive treatment can substantially lower the risk of developing a severe disease.**

(click on the section below or scroll down to view all the information)

[Frequently asked question with answers from the US Center for Disease Control \(CDC\)](#)

[Information extracted from Chang Rai Times](#)

[A Member’s Experience](#)

[US CDC Website.](#)

What is Dengue Fever?

Dengue (pronounced den' gee) is a disease caused by any one of four closely related dengue viruses (DENV 1, DENV 2, DENV 3, or DENV 4). The viruses are transmitted to humans by the bite of an infected mosquito.

What is Dengue Hemorrhagic Fever (DHF)?

DHF is a more severe form of dengue infection. It can be fatal if unrecognized and not properly treated in a timely manner. DHF is caused by infection with the same viruses that cause dengue fever. 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 virus in their blood. The person can either have symptoms of dengue fever or DHF, or they may have no symptoms. After about one week, the mosquito can then transmit the virus while biting a healthy person. Dengue cannot be spread directly from person to person.

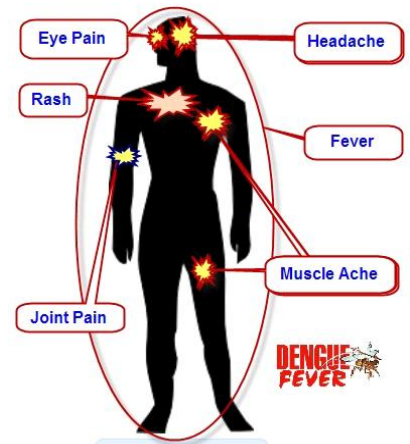


What are the symptoms of the disease?

The principal symptoms of **Dengue Fever** are high fever, severe headache, severe pain behind the eyes, joint pain, muscle and bone pain, rash, and mild bleeding (e.g., nose or gums bleed, easy bruising). Generally, younger children and those with their first dengue infection have a milder illness than older children and adults.

[Note: This is not the case if it is **Dengue Hemorrhagic Fever** – children are more at risk with DHF]

Dengue hemorrhagic fever is characterized by a fever that lasts from 2 to 7 days, with general signs and symptoms consistent with dengue fever. When the fever declines, symptoms including persistent vomiting, severe abdominal pain, and difficulty breathing, may develop. This marks the beginning of a 24- to 48-hour period when the smallest blood vessels (capillaries) become excessively permeable (“leaky”), allowing the fluid component to escape from the blood vessels into the peritoneum (causing ascites) and pleural cavity (leading to pleural effusions). This may lead to failure of the circulatory system and shock, followed by death, if circulatory failure is not corrected. In addition, the patient with DHF has a low platelet count and hemorrhagic manifestations, tendency to bruise easily or other types of skin hemorrhages, bleeding nose or gums, and possibly internal bleeding.



[Note: The [World Health Organization](#) (WHO) has the following comment: **Dengue hemorrhagic fever is a leading cause of serious illness and death among children in some Asian countries.**]

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. If they feel worse (e.g., develop vomiting and severe abdominal pain) in the first 24 hours after the fever declines, they should go immediately to the hospital for evaluation.



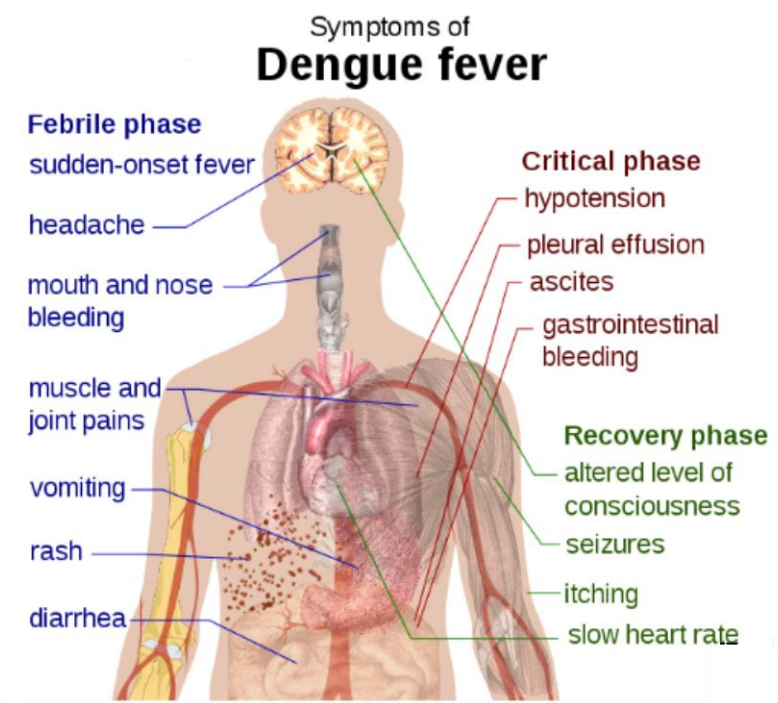
[Note: Aspirin is a blood thinner, it can cause serious problems if the person has Dengue Hemorrhagic Fever]

Is there an effective treatment for dengue hemorrhagic fever (DHF)?

As with dengue fever, there is no specific medication for DHF. It can however be effectively treated by fluid replacement therapy if an early clinical diagnosis is made. DHF management frequently requires hospitalization.

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INFORMATION FROM AN ARTICLE IN THE CHANG RAI TIMES



<http://chiangraitimes.com/?p=1254>

[The symptoms on the left of this chart published in the Chang Rai Times are generally those that may be experienced with **Dengue Fever** whereas those on the right side relate to **Dengue Hemorrhagic Fever**]

Clinical Professor Siripen Kalayanarooj of the Queen Sirikit National Institute of Child Health . . . suggested that people who develop high fever for more than two days should undergo immediate diagnosis and treatment at hospital. Aspirin and ibuprofen are not recommended to reduce fever or to treat the illness, as these two drugs could cause bleeding in the stomach, leading to death.

What You Should Know about Dengue Fever

- *Dengue fever is a mosquito borne infection carried by several types of mosquito in the Aedes genus. The female of the species is usually the culprit and this particular mosquito is most active in the daytime particularly in the sunset hours.*
- *The mosquito once a carrier of dengue fever will remain so it's entire life span.*
- *The mosquito will pass on the virus to any eggs it's carrying at the time and the children be will also be carriers.*
- *There are 4 different types of dengue fever.*
- *The incubation period for dengue fever is 7-14 days.*
- *There is no immunization for dengue fever.*
- *Symptoms of dengue fever can include: A measles like rash, ocular headaches (headache behind the eyes), joint and muscle pain, loss of appetite, high fever, vomiting,*

dehydration, diarrhea and in more severe cases of dengue hemorrhagic fever, bruising and internal bleeding.

- *Being infected with one strain of dengue fever gives you a lifelong immunity to that strain and a small short lived immunity to the other 3 strains.*
- *Being infected by dengue fever a second time highly increases your chances of the infection turning into the more dangerous dengue hemorrhagic fever.*
- *Dengue hemorrhagic fever doesn't normally show up until the initial fever has subsided and you start to feel a little better.*

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A Club Member's Experience

About 2 years ago it started with a severe headache and high fever on a Monday. I took some aspirin and did not receive any relief.

On Tuesday, I sent my Thai partner to the pharmacy for something else to relieve the headache pain as it was severe. The pharmacist provided ibuprofen, which did relieve the headache and the fever. It is my understanding the incubation period is around 5 to 7 days - medicinenet.com mentions that it can be up to 15 days. Having no recall of being bitten by any mosquitoes, I didn't even think about Dengue Fever.

On Wednesday, I began to think maybe it was Dengue Fever, so I did a Google search for the symptoms. Apparently one does not necessarily get all the symptoms as I had only the fever and headache. However, my research did come up with the fact that joint or muscle pain and a rash develop later in the disease's progress. I continued to take ibuprofen that day.

Thursday, I had no headache or fever so I quit taking the Ibuprofen. But a red rash had appeared on my upper chest just below the neckline. I decided that I would go to Bangkok Hospital Pattaya (BHP) the next morning as the rash pretty much confirmed my self-diagnosis – Dengue Fever. Also having previously heard from other Expats at the Club's meeting about their Thai spouse being hospitalized after being diagnosed with Dengue Fever, I expected that would be the case. So I telephoned an Expat friend who agreed to drive me to BHP the next morning.

Friday morning, I felt fine – no fever, no headache, still had the rash. So, into the shower I went – that is when I discovered why they call it “break bone” fever. While standing in the shower, the muscles on the back of my lower legs began to hurt. I finished dressing and waited for my friend to arrive. While sitting, I had no pain. But, when I got up to go to the car, the pain came back quickly and it was severe - I could barely walk to the car. When we arrived at BHP, I asked my friend to drop me off at the front entrance as I wasn't sure I could walk – once I got out of the car, the pain was there again and I motioned to one of the hospital staff that I needed a wheel chair. I was wheeled into the elevator and taken to the internal medicine clinic.

I met with Dr. Apachai, fortunately he was on duty as he is my preferred physician in that Department. I explained that I thought I had Dengue Fever. He said I was probably right, but ordered a blood test that would confirm it. About 20 minutes after they took the blood, the results were in – yes, it was Dengue Fever (low white blood count) and yes, I was admitted to the hospital.

I was hooked up to an IV and provided with some medication, one being acetaminophen (Tylenol). Dr. Apachai told me I should not have taken the aspirin and ibuprofen because if I had the hemorrhagic variety and experienced any internal bleeding, it might be too difficult to stop as what I had taken were blood thinners. He said they had to send the blood sample to a laboratory in Bangkok to determine the strain I had and would get the results back the next day. I also had to give a nurse my home address as they have to report all Dengue Fever cases to Pattaya City.

Saturday, I was advised that I did indeed have Dengue Hemorrhagic Fever (a different nurse came in to get my address again; when I said I had already done that, she said they had to report it again because it

was the hemorrhagic strain). I spent 3 days in the hospital being treated with IV and other medication for pain - a blood test was done daily to see if it had run its course - Dr. Apachai told me it normally lasts 7 to 8 days.

My 3 days in the hospital, I actually felt fine with no fever or pain. I was released after my white blood count was found to be okay. Overall, I had a moderate case, but even so, it was not a pleasant experience. Also, according to Dr. Apachai and some material I have read, I am now immune to the strain I had, but can still get infected by any of the other three.

A few days after getting out of the hospital, a card was left in the mailbox - had both Thai and English - it was a notice that the City had sprayed the area for those dastardly mosquitoes.

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