

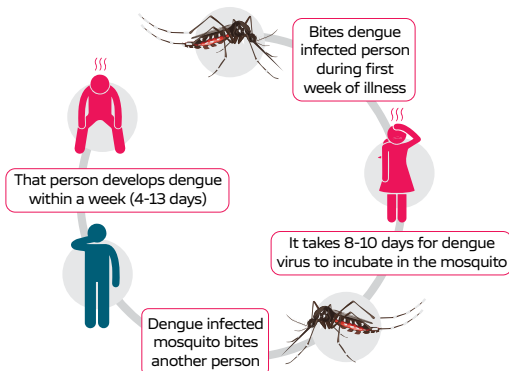
Dengue Fever

Get the Facts



What is dengue?

Dengue is viral illness caused by infection with one of four dengue viruses transmitted to humans by the bite of an infected *Aedes aegypti* mosquito. When a person recovers from dengue infection they develop a long-term immunity to that specific virus, but not the other three dengue viruses. If the person becomes infected again with a different dengue virus, there is an increased chance that they may develop a more severe form of the illness known as dengue hemorrhagic fever (DHF).



What are the symptoms?

- Symptoms include:
 - high fever
 - severe headache
 - severe eye pain behind the eyes
 - mild bleeding manifestation (nose or gum)
 - muscle and bone pains and joint pains
 - rash
- Symptoms usually last for two to seven days.

What are the symptoms? (continued)

- Some cases can be very mild, while others can show disorders in blood clotting, which can result in internal bleeding. This is the severe form of dengue, also called dengue hemorrhagic fever.
- Dengue hemorrhagic fever is associated with loss of appetite, vomiting, headache, shortness of breath, abdominal pain, etc. Patients can develop failure of the circulatory system and shock.

What is the global, regional and local burden of dengue?

- It is estimated that more than 100 million cases occur worldwide each year. It has become a major international public health concern. There is an increase in Dengue cases around the world from Asia, Africa, Australia, and the United States.
- Dengue outbreaks have occurred in many countries in the Caribbean, Central and South America.
- Dengue is not endemic to the Cayman Islands. There are usually no more than 10 confirmed cases per annum, except for an outbreak in 2012/13 and 2019.

Year	Dengue Cases	Transmission
2018	5	Imported
2019	24	Imported and local transmission
2020	0	
2021	0	
2022	<5	Imported
2023*	5	Imported and local transmission

* The first 9 months of 2023 only.

Are there Dengue cases in Cayman?

We have sufficient evidence to confirm local transmission in the Cayman Islands.

How is dengue spread?

- The *Aedes aegypti* mosquito gets infected by biting the dengue patient in the first week of illness.
- After about eight to ten days of incubation the infected mosquito is capable of transmitting the virus for the rest of its life.

How is dengue spread? (continued)

- Only the *Aedes aegypti* mosquito that has bitten an infected person can pick up the virus and transmit to another person.
- *Aedes aegypti* is a daytime biter, with peak activity in the late afternoon (4 to 6 PM).
- The virus cannot be spread directly from one person to another.

How soon do symptoms occur after the bite of an infected mosquito?

- After the bite of an infected *Aedes aegypti* mosquito, dengue fever usually develops within five to six days.
- However, it can take as few as three days or as many as fifteen days.
- An infected person can be a source of dengue virus for mosquitoes for about five to six days after onset of fever.

How is dengue diagnosed?

- Doctors suspect the possibility of dengue based on clinical symptoms and signs. Dengue is suspected when a high fever (40°C) is accompanied by two of the other symptoms.
- At times, it is difficult to differentiate between dengue and chikungunya. Severe joint pains are predominant in chikungunya while muscle and bone pain are predominant in dengue.
- Confirmation is by a blood test. Preliminary dengue test results (local) are available within 24 to 48 hours, with confirmatory tests at the Cayman Islands Molecular Biology Laboratory.

What should I do if I have dengue?

- There is no specific treatment for dengue.
General measures include:
- Bed rest
- Use of acetaminophen or paracetamol (Panadol or Tylenol) for control of fever and pain relief
- Do not use Aspirin, Ibuprofen (Motrin or Advil) as they increase the risk of bleeding
- Plenty of fluids to prevent dehydration
- Protect yourself from mosquito bites to prevent transmission
- Laboratory confirmation is not essential for the management of dengue cases as the treatment depends on the patient's symptoms.
- Most people recover without complications.
- Return to the clinic if the condition starts worsening with severe abdominal pain or bleeding of nose or gums; vomiting of blood; black stools; drowsiness; cold or clammy skin etc.

Is there a vaccine against dengue?

- There is no vaccine to protect against dengue. The only protection is to avoid mosquito bites.

How to reduce the risk of dengue infection?

- Although dengue cases is not endemic in the Cayman Islands, there is always a probability of returning residents or visitors from endemic areas being infected with the dengue virus and getting bitten by local mosquitoes. It is also difficult for the public to identify the mosquitoes. Hence protect yourself from mosquito bites in general, especially the ones in the late afternoon (4 to 6 PM) that might be *Aedes aegypti*.

To avoid getting bitten by mosquitoes: (whether locally or overseas)

- Use mosquito repellents containing at least 50% DEET on skin and clothing.
- When outdoors during times that mosquitoes are biting, wear long-sleeved shirts and long pants tucked into socks.
- When indoors, stay in air-conditioned or screened areas.

To minimize being bitten by *Aedes aegypti* mosquitoes – eliminate breeding sites:

- *Aedes aegypti* is referred to as a domestic mosquito because it lives in close association with people.
- It breeds in and around houses in any container capable of holding rainwater. Typical sites where the mosquito larvae can be found include buckets, water drums, flowerpots, and any discarded garbage.
- Because the mosquito does not travel far, the most effective way of protecting yourself and your family is by ensuring your yard is maintained free of breeding sites.
- A quick survey of your yard every 4 to 5 days for containers holding water and/or mosquito larvae and emptying them will greatly reduce your chances of being bitten. Emptying the water will kill any larvae. Turning the container upside down will prevent it becoming a breeding site in the future.

For advice on Mosquito Control

Mosquito Research and Control Unit
Grand Cayman 949-2557
Cayman Brac 948-2223

Department of Environmental Health
Grand Cayman 949-6696
Cayman Brac 948-2321