

Dengue Fever



Causative agent

Dengue fever is an acute mosquito-borne infection caused by the dengue viruses. This is found in tropical and sub-tropical regions around the world. For instance, dengue fever is an endemic illness in many countries in South East Asia. The dengue viruses encompass four different serotypes, each of which can lead to dengue fever and severe dengue (also known as 'dengue haemorrhagic fever').

Clinical features

Dengue fever is clinically characterised by sudden onset of high fever, severe headache, pain behind the eyes, muscle and joint pains, loss of appetite, nausea and rash. Some infected people may not develop apparent symptoms, and some may only have mild symptoms like fever, e.g. young children may exhibit a milder non-specific febrile illness with rash.

The symptoms of first infection are usually mild. Once recovered, immunity to that serotype of dengue virus will develop but subsequent infections with other serotypes of dengue virus are more likely to result in severe dengue. Severe dengue is a severe and potentially fatal complication of dengue fever. Initially, the features include high fever, which lasts 2 – 7 days and can be as high as 40 – 41 ° C, facial flush and other non-specific constitutional symptoms of dengue fever. Later, it may be followed by manifestations of bleeding tendency such as skin bruises, nose or gum bleeding, and possibly internal bleeding. In severe cases, it may progress to circulatory failure, shock and death.

Immunity is attained against that serotype after recovery from its infection. However, no effective protection is conferred against subsequent infection by the other three serotypes.

Mode of transmission

Dengue fever is transmitted to humans through the bites of infective female *Aedes* mosquitoes. When a patient suffering from dengue fever is bitten by a vector mosquito, the mosquito is infected and it may spread the disease by biting other people. In Hong Kong, the principal vector *Aedes aegypti* is not found, but the prevailing species *Aedes albopictus* can also spread the disease.

Incubation period

From 3 – 14 days
commonly 4 – 7 days

Management

There is no specific medication for dengue fever and severe dengue. Dengue fever is mostly self-limiting. Symptomatic treatment is given to relieve discomfort. Patients with severe dengue should be treated promptly with supportive management. The mainstay of treatment is to maintain the circulating fluid volume.

Prevention

The best preventive measure is to eliminate pockets of stagnant water that serve as sites of mosquito breeding and protect ourselves to avoid mosquito bites.



General Measures on Preventing Mosquito - borne Diseases

Protect ourselves against bites

- 1 Wear loose, light-coloured long-sleeved tops and trousers.
- 2 Use DEET-containing insect repellent on exposed parts of the body and clothing.
- 3 Take additional preventive measures when engaging in outdoor activities:
 - Avoid using fragrant cosmetics or skin care products.
 - Re-apply insect repellents according to instructions.
- 4 Special notes when travelling abroad
 - If going to affected areas or countries, arrange a consultation with doctor at least six weeks before the trip, and have extra preventive measures to avoid mosquito bite.
 - During the trip, if travelling in endemic rural areas, carry a portable bed net and apply permethrin (an insecticide) on it. Permethrin should NOT be applied to skin. Seek medical attention promptly if feeling unwell.
 - Travellers who return from affected areas should apply insect repellent for 14 days after arrival to Hong Kong. If feeling unwell e.g. run a fever, should seek medical advice promptly, and provide travel details to doctor.



Help prevent mosquito proliferation

- 1 Prevent the accumulation of stagnant water.
- 2 Control vectors and reservoir of the diseases.

If you notice any mosquito breeding sites in public places, you may call the Food and Environmental Hygiene Department Hotline at 2868 0000.



Centre for Health Protection Website: www.chp.gov.hk

24-Hour Health Education Hotline of the Department of Health: 2833 0111