Health Matters

By Dr Indumathi Venkatachalam | Division of Infectious Diseases

What is dengue?

engue is an infection caused by a virus transmitted by the Aedes mosquito commonly found in the tropics. The dengue virus is transmitted to a mosquito when it feeds on an infected human. The virus survives within the mosquito as its immune system does not eliminate it and is transmitted to another human when the mosquito feeds on the human's blood. A mosquito with the dengue virus can potentially infect every person that it bites.

Singapore, with its high population density, urban built-up environment and year-round warm weather, creates a suitable environment for the mosquitoes' survival, leading to dengue transmission.



Illness caused by the infection follows about five to seven days after the bite of a mosquito. A dengue infection can present itself as dengue fever, or it can progress to the severe form, dengue haemorrhage fever.

WHAT ARE THE SYMPTOMS OF A DENGUE INFECTION?

Fever, often with chills, is the main symptom. Other symptoms include headache, body ache, nausea, vomiting and skin rash. There is a spectrum of illness with some having very mild symptoms and others experiencing the more severe forms of the disease.

Initial symptoms of dengue haemorrhage fever mirror that of dengue fever, but after two to three days, people with dengue haemorrhage fever may notice other symptoms which include:

- easy bruising
- · bleeding from the gums when brushing teeth
- a skin rash with non-blanching spots when pressed
- difficulty in breathing
- swelling of the legs
- vomiting of blood
- blood stained or black-sticky stools

A small percentage of people infected with the virus, particularly those who were previously infected with another virus strain, can potentially develop the more serious dengue haemorrhage fever.

If you notice such symptoms, you should seek medical help immediately.

HOW IS A DENGUE INFECTION TREATED?

At present, there is no drug that can treat the virus itself. Trials for a dengue vaccination are on-going, but there is currently no vaccine available to prevent dengue.

Doctors will prescribe symptomatic pain relief medication. In the setting of severe dengue infection, apart from pain relief, platelet or blood transfusion and intravenous fluid replacement may be instituted. A typical recovery may take up to 10 days. For those with severe infection, a full recovery may take up to a few weeks. In the vast majority of cases, dengue is a mild and uncomplicated illness. Only a small number may have to be admitted to hospital. Pregnant women, young children below one year of age and the elderly may be more susceptible to a more severe illness.

HOW DO I PREVENT A DENGUE INFECTION?

The Aedes mosquito lives indoors, in cool shady places, and bites during daylight hours. It is hard to catch as it moves quickly and its bite is painless. People often mistakenly think that if they do not see mosquitoes flying around, there is none in their immediate environment.

Try to avoid getting bitten by mosquitoes by using mosquito repellents, wearing light-coloured clothes that cover up areas of skin that mosquitoes can bite, and staying in a cool, air-conditioned room if possible (mosquitoes do not like the cold). Installing mosquito screens on doors and windows, and sleeping with a bed net can provide additional protection.

However, the key to prevent a dengue infection is to create an environment that discourages the breeding of the Aedes mosquito. Follow the advice of the National Environmental Agency (NEA) to reduce the risk of infection:

- 1. Change water in vases and bowls on alternate days
- 2. Remove water from flower pot plates on alternate days
- 3. Turn over all water storage containers
- 4. Cover bamboo pole holders when not in use
- Clear blockages and put BTI insecticide in roof gutters monthly

(Source: www.dengue.gov.sg)

Alert the NEA or your Town Councils on potential breeding habitats in common areas of your neighbourhood such as corridors and playgrounds. NEA's hotline is 1800-CALL NEA (1800 2255 632) or email Contact_NEA@nea.gov.sg

Information in this newsletter should not be used as a substitute for medical diagnosis or treatment. Contents in this newsletter may be reproduced with the permission of National University Hospital.