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DENGUE FEVER PREVENTION & TREATMENT

Dengue Fever can be easily prevented !

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Dengue Fever

◆ What is it ?

Dengue fever is a common communicable disease characterized by occurrence of high fever, severe body aches and intense headache. It is a very common disease that occurs in epidemic form from time to time. Delhi and parts of parts of North India experienced an epidemic in 1996. The disease is quite severe in young children as compared to adults.

It is a disease which occurs throughout the world except in Europe and affects a large number of people. For example, it is estimated that every year, 2 crore cases of Dengue fever occur in the world. Death rate varies from 5 per 100 cases to 30 per 100 cases.

◆ Cause ?

It is caused by a virus (Dengue Virus) which has got four different types (Type 1,2,3,4). Common name of the disease is 'break-bone fever' (*Haddi Tod Bukhar*) because of severe body and joint pains produced.

◆ Spread

Just like in Malaria, Dengue fever is also spread by bites of mosquitoes. In this case, the mosquitoes are "Aedes" mosquitoes which are very tough and bold mosquitoes and bite even during day time also.

This disease occurs more frequently in the rainy season and immediately afterwards (July to October) in India.

The Dengue virus is present in the blood of the patient suffering from Dengue fever. Whenever an Aedes mosquito bites a patient of Dengue fever, it sucks blood and along with it, the Dengue virus into its body. The virus undergoes further development in the body of the mosquito for a few days. When the virus containing mosquito bites a normal human being, the virus is injected into the person's body and he/she becomes infected and can develop symptoms of Dengue fever.

◆ **Incubation Period :** It means the time between bite of an infected mosquito and appearance of symptoms of dengue fever in the bitten person. Commonly it is 5-6 days. However it can vary from 3-10 days.

◆ **Symptoms of the disease**

Symptoms depend upon the type of Dengue fever. There are three types of Dengue fever-

1. Classical (Simple) Dengue Fever
2. Dengue Haemorrhagic Fever (DHF)
3. Dengue Shock Syndrome (DSS)

The classical (Simple) Dengue fever is a self-limiting disease and does not kill. However, the other types (i.e. DHF & DSS) can prove fatal if prompt treatment is not started.

It is important to recognise whether Dengue Fever is Simple or DHF or DSS. The following symptoms will help in diagnosis –

1. Classical (Simple) Dengue Fever :

- Sudden onset of high fever with feeling of chills (“*Thandi Lagna*”).
- Severe Headache, Pains in muscles and joints.
- Pain behind the eyeballs especially on pressing the eyes or on moving the eyeballs.
- Extreme weakness, loss of appetite, feeling of nausea.
- Change in taste sensations in mouth.
- Pain in abdomen by itself or on touching.
- Mild pain in throat.
- Patient feels generally depressed and very sick.



- Rash on the skin : Pinkish red rash appears on the skin in the form of diffuse flushing, mottling or pinhead eruptions on the face, neck and chest. Later on, the rash may become more prominent.

The entire duration of Classical Dengue fever lasts for about 5-7 days and the patient recovers.

2. Dengue Haemorrhagic Fever – (DHF) –

It should be suspected **if with above mentioned symptoms** of Classical (Simple) Dengue Fever, **one or more of the following symptoms appear** –

- **Bleeding (haemorrhagic) manifestations** : Bleeding from nose, gums, blood in the stools or in vomiting, bleeding spots on the skin which are seen as dark bluish-black, small or large patches. If a health worker carries out a Tourniquet Test, it is positive. Certain laboratory investigations carried out on a blood sample also confirm DHF.

3. Dengue Shock Syndrome (DSS)

All symptoms as mentioned above in DHF are present plus the patient also develops a condition called ‘shock’. Symptoms of shock in a Dengue Fever case are –

- The person is very restless and the skin feels cold and clammy despite high fever.
- The person may start losing consciousness.
- If you examine the pulse rate of the patient, it is weak and rapid. Similarly, blood pressure will be low.

◆ Treatment

If it is classical (simple) Dengue Fever, the patient can be managed at home. As it is a self-limiting disease, the treatment is purely supportive

and symptomatic –

e.g. –

- Keep the fever low by giving paracetamol tablet or syrup as per health worker's advise.
- Avoid giving Aspirin tablets to patient
- If fever is more than 102°F, carry out hydrotherapy to bring down the temperature.
- Give plenty of fluids water, shikanji etc. to the patient.
- Continue normal feeding. In fever, the body, infact, requires more food.
- Allow the patient to rest.

If any of the symptoms indicative of DHF or DSS develop, rush the patient to the nearest hospital at the earliest where appropriate investigations will be carried out and necessary treatment instituted, e.g., transfusion of fluids or platelets (a kind of blood cells which become low in DHF and DSS). **Please remember that every patient does not require blood platelet transfusion.**

Please remember :

Even DHF and DSS can be managed successfully if a correct diagnosis is made and the treatment is started early.

◆ Prevention

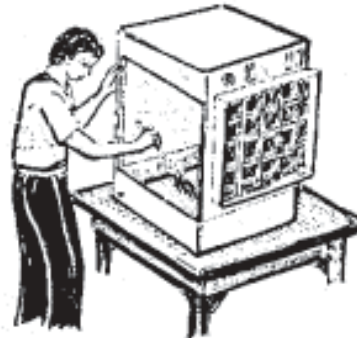
Prevention of Dengue Fever is easy, cheap and better. What is required are some simple measures for –

- Preventing breeding of Aedes mosquitoes
- Protection from Aedes mosquitoes' bites.

For protection against mosquitoes –

1. Mosquito breed only in water sources such as stagnant water in drains and ditches, room air coolers, broken bottles, old discarded tyres, containers and similar sources.

- Don't allow water to remain stagnant in and around your house. Fill the ditches. Clean the blocked drains. Empty the room air coolers and flower vases completely atleast once in seven days and let them dry. Dispose off old containers, tins and tyres etc. properly.
- Keep the water tanks and water containers tightly covered so that the mosquitoes can not enter them and start breeding.
- Wherever it is not possible to completely drain the water off from room cooler, water tanks etc., it is advised to put about two tablespoons (30 ml.) of petrol or kerosene oil into them for each 100 litres of water. This will prevent mosquito breeding. Repeat it every week.
- You can also put some types of small fish (Gambusia, Lebister) which eat mosquito larvae into these water collections. These fish can be obtained from the local administrative bodies (e.g., Malaria Officer's office in the area).

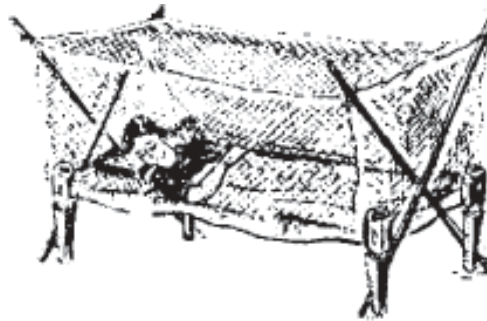


- Wherever possible, practicable and affordable, prevent entry of mosquitoes into the house by keeping wire mesh on windows and doors.
- Use mosquito repellent sprays, creams, coils, mats or liquids to drive away/ kill the mosquitoes. Use of *googal* smoke is a good indigenous method for getting rid of mosquitoes.
- Wear clothes which cover the body as much as possible. This is more relevant in case of children. Nickers and T-shirts are better avoided during the season of Malaria and Dengue fever, i.e., from July to October.
- Don't turn away spray workers whenever they come to spray your house. It is in your own interest to get the house sprayed.
- Use insecticidal sprays in all areas within the house atleast once a week. Don't forget to spray behind the photo-frames, curtains, calendars; corners of house, stores.
- Keep the surroundings of your house clean. Don't litter garbage. Don't allow wild herbs etc. to grow around your house (atleast in a radius of about 100 metres around your house). They act as hiding and resting places for mosquitoes.
- Do inform and take help from your local health centre, panchayat or municipality in case you notice abnormal density of mosquitoes or too many cases of fever are occurring in your area.



It is good to remember that Aedes mosquitoes bite even during daytime and hence you should take precautions against their bite during day time also.

- If fencing of the doors and windows is not possible due to any reason, spray the entire house daily with pyrethrum solution.
- Dengue fever occurs most frequently in India in the months of July to October because this season provides very suitable conditions for breeding of mosquitoes. Hence all these preventive steps must be taken during the season.
- Lastly, it is advisable to always keep the patient of Dengue fever under a mosquito net in the first 5-6 days of the illness so that mosquitoes don't have an access to him/her. This will help in reduction in spread of Dengue fever to other persons in the Community.



If you ever notice that many persons have suffered from an illness which may appear to be Dengue Fever, please inform this to the local health authorities at the earliest. This will help in preventing the disease acquiring epidemic proportions.

Source : "Diseases and Conditions with Epidemic Potential"

by

Dr. Bir Singh, VHAI, 2000