

DENGUE FEVER

1. What is dengue fever? How is it acquired?

Dengue is a febrile illness caused by any of the four different types of dengue virus. It affects all age groups, but most cases occur in children less than 15 years old. The virus is transmitted by the bite of either *Aedes aegypti* or *Aedes albopictus*, both of which have black and white stripes on the legs and bodies. These mosquitoes prefer to breed in clean, stagnant water and bite during the daytime.

2. What are the signs and symptoms?

Four to ten days after being bitten, children may have moderate to high fever lasting for 2-7 days. The fever may be continuous or may disappear after 1-2 days only to recur. There may be non-specific symptoms such as nausea, vomiting, loss of appetite, headache, pain behind the eyes, body aches, rash and abdominal pain. Frequently, children remain ill-looking even after fever resolves. Nose or gum bleeding, pinpoint, red spots on the skin (petechiae), coffee-ground material in the vomitus or black stools may indicate bleeding. With further progression of the illness, children may develop cold, sweaty skin, drowsiness or restlessness, which are symptoms of shock.

3. How soon should I seek medical consultation for my febrile child?

As early as the second day of fever, you may seek consult and tests may be done to detect Dengue. Since Dengue Fever ranges from a mild infection to a more serious or even critical illness, more frequent follow-ups and laboratory exams may be necessary to monitor the progression of the disease. However, you have to bring your child immediately to the emergency room when he/she has ANY of the following WARNING SIGNS:

- a. abdominal pain
- b. persistent vomiting
- c. inability to feed
- d. weakness
- e. nose or gum bleeding
- f. disorientation or changes in behavior
- g. cold/clammy skin
- h. decreased urine output or no urine output for 6 hours

4. What laboratory tests can be done?

During the illness, the following tests may be requested by your physician:

- a. CBC and Platelet count
- b. Dengue NS1 Antigen, which can be requested as early as the first day of symptoms, depending on the evaluation of the physician
- c. Antibody for Dengue, which usually is requested from the 4th day of illness onwards

5. My child was diagnosed to have dengue. Should he be hospitalized?

Based on the child's physical examination and laboratory results, your doctor should be able to decide whether it is safe to observe the child at home or if he should be hospitalized. Some of the common reasons for hospitalization would be the presence of any of the WARNING signs, as mentioned above.

6. I was told by my son's physician that he has Dengue Fever and can still be managed at home. What can I do for my child?

He will benefit from cooling measures like wearing loose, comfortable clothing, and sponge bathing with tap water. Ice water is not recommended for sponge bathing since he may go into chills because of the rapid change in temperature. Encourage your child to drink plenty of fluids like oral rehydrating solutions and milk. If your child is still breastfeeding, it should be done more frequently. Paracetamol may be given at the appropriate dosage for the child's weight, as prescribed by your physician.

There is no specific food that is recommended for children with dengue. Encourage him to eat whatever is his food preference. However, dark-colored foods may affect the color of the stools and the vomitus, hence, these may be avoided.

Daily follow-ups with your son's physician are recommended.

7. When is transfusion necessary?

In most cases, it is not needed unless there are signs of severe bleeding or dehydration and shock such as decreased blood pressure, rapid & weak pulse, cold clammy skin, and restlessness. In these cases, plasma is given. When there is active bleeding, fresh whole blood and clotting factors are transfused.

8. My child has been hospitalized for Dengue. I was told he is being monitored for the progression of his condition. What are these?

These are bleeding, accumulation of fluid in the lungs and abdomen, decreasing blood pressure, and shock, which often occur during the first 48 hours after the temperature becomes normal. During recovery, slowing of the heart rate may be observed. Other complications may involve other organs such as the kidneys, liver and brain.

9. If my child had dengue before, can he still catch it again?

Unfortunately, yes. There are four different strains of dengue virus and a previous infection with one strain does not protect against infection with another strain. In fact, the first infection may have gone unrecognized, appearing as a mild febrile illness. It is the subsequent infection that may produce severe symptoms.

10. One of my children was hospitalized for dengue last week. Can my other children also catch the disease?

Since the dengue virus is transmitted by mosquito bites, as long as there are mosquitoes capable of acting as carriers in your home, transmission of the disease is possible. Therefore, it is very important to do mosquito-control measures regularly to prevent the spread of the disease.

11. Is there a vaccine to prevent dengue?

At the moment, there is no vaccine available here in our country but a Dengue vaccine is available in other countries such as Singapore, Thailand, Puerto Rico, and other countries where Dengue is endemic. You may ask your physician regarding the vaccine. Several promising vaccines are being tested here and abroad and may become available for use in the near future.

12. How effective is the vaccine in preventing Dengue?

Overall, the vaccine protects 80% of children with a prior dengue infection, from severe dengue. It protects against all four dengue virus strains: dengue 1, 2, 3, and 4. (CDC, Vaccine preventable Diseases <https://www.cdc.gov/vaccines/vpd/dengue/public/index.html>)

13. What can I do to keep my child from catching dengue?

Since the vaccine is not available in our country, the most important measure for the prevention of dengue is the elimination of mosquito breeding sites. This is the definitive factor for controlling the spread of the disease. Water found in containers around homes and schools, such as pails, vases, pots, cans and old tires should be regularly emptied. An alternative is to cover these containers to prevent mosquitoes from breeding.

There are other methods of controlling the mosquito population such as the use of the *ovitrap* and *larvitrap*. You may refer to this site for guidance https://www.youtube.com/watch?v=mBBWXJ3-WFs&ab_channel=DOSTSTII

In areas where there are dengue outbreaks, fumigation is helpful, as well as spraying the sites with a mosquito/insect spray.

Insect repellants may be applied with care to the exposed areas of the body especially in the very young. Light-colored clothing, preferably those covering the extremities, is recommended since mosquitoes are attracted to dark colors.