

# DENGUE

- Dengue is a viral infection transmitted by mosquitoes, primarily the *Aedes aegypti* species.
- It can cause flu-like symptoms, including high fever, severe headaches, joint and muscle pain, nausea, vomiting, and a rash.
- In severe cases, it can lead to dengue hemorrhagic fever or dengue shock syndrome, which can be life-threatening.



## Cause of infection

- Dengue is caused by the dengue virus, which belongs to the **Flaviviridae family**.
- There are four distinct serotypes of the virus (DEN-1, DEN-2, DEN-3, and DEN-4), all transmitted through the bite of infected Aedes mosquitoes, particularly **Aedes aegypti** and **Aedes albopictus**.

## Site of infection in Dengue

- The primary site of infection in dengue is the bloodstream.
- After being transmitted through the bite of an infected mosquito, the dengue virus replicates in the bloodstream, leading to the characteristic symptoms of the disease.
- Additionally, certain tissues and organs, such as lymph nodes, liver, and spleen, may also be affected during the course of the infection.

# Mode of transmission of Dengue

- Dengue is primarily transmitted to humans through the bite of infected Aedes mosquitoes, particularly *Aedes aegypti* and *Aedes albopictus*.
- These mosquitoes become infected when they feed on the blood of a person already infected with the dengue virus.
- Once infected, the mosquitoes can then transmit the virus to other individuals through subsequent bites. Dengue cannot be spread directly from person to person.

# Symptoms of Dengue

- Common symptoms of dengue fever include:
- Sudden onset of high fever
- Severe headache, typically behind the eyes
- Muscle and joint pain, often described as "breakbone fever"
- Nausea and vomiting
- Fatigue and weakness
- Skin rash, which may appear two to five days after the onset of fever
- Mild bleeding, such as nosebleeds, gum bleeding, or easy bruising
- In severe cases, dengue can lead to dengue hemorrhagic fever or dengue shock syndrome, characterized by symptoms such as severe abdominal pain, persistent vomiting, bleeding gums, rapid breathing, and signs of circulatory failure. Severe dengue requires immediate medical attention as it can be life-threatening.

# Treatment

- The treatment of dengue primarily focuses on relieving symptoms and providing supportive care. This may include:
- Fluid replacement therapy to prevent dehydration, especially in cases of severe vomiting and diarrhea.
- Pain relievers such as acetaminophen (paracetamol) to reduce fever and alleviate muscle and joint pain. Avoid nonsteroidal anti-inflammatory drugs (NSAIDs) like ibuprofen and aspirin, as they can increase the risk of bleeding.
- Rest and adequate hydration to help the body recover.
- Monitoring for signs of severe dengue, such as persistent vomiting, abdominal pain, and bleeding, which may require hospitalization for close observation and intensive care.

There is no specific antiviral medication to treat dengue, and antibiotics are not effective against viral infections like dengue. Treatment focuses on managing symptoms and preventing complications.

# Essential Nutrient needed during Dengue to maintain proper health

During dengue fever, maintaining proper nutrition is crucial to support the body's immune system and aid in recovery. Some essential nutrients to focus on include:

- **Fluids:** Stay well-hydrated with water, coconut water, electrolyte drinks, and clear soups to prevent dehydration, especially if experiencing fever, vomiting, or diarrhea.
- **Electrolytes:** Replenish electrolytes lost through sweating and vomiting with foods like bananas, oranges, avocados, yogurt, and electrolyte solutions.
- **Protein:** Consume adequate protein to support immune function and tissue repair. Include sources like lean meats, poultry, fish, eggs, tofu, legumes, and dairy products in your diet.
- **Vitamin C:** Boost your immune system and aid in recovery with foods rich in vitamin C such as citrus fruits, strawberries, kiwi, papaya, bell peppers, and broccoli.
- **Vitamin A:** Support immune function and promote tissue repair with foods like sweet potatoes, carrots, spinach, kale, mangoes, and apricots.
- **Zinc:** Enhance immune function and wound healing by including zinc-rich foods such as oysters, beef, poultry, beans, nuts, seeds, and whole grains in your diet.
- **B Vitamins:** Maintain energy levels and support immune function with foods rich in B vitamins such as whole grains, meat, poultry, fish, eggs, dairy products, leafy greens, and legumes.
- **Omega-3 fatty acids:** Reduce inflammation and support overall health with foods like fatty fish (salmon, mackerel, sardines), flaxseeds, chia seeds, walnuts, and soybeans.

Focus on consuming a balanced diet with a variety of nutrient-dense foods to support your health during dengue fever. If symptoms are severe or persist, seek medical attention promptly.