

COMPREHENSIVE GUIDE TO DENGUE

Description

Dengue (also known as "break-bone fever") is a viral infection transmitted to humans through the bites of infected female mosquitoes, primarily the *Aedes aegypti* species. It is most prevalent in tropical and subtropical climates worldwide.

History

The history of Dengue fever spans centuries of recorded medical observations:

- **Ancient Records (265–420 AD):** The earliest potential record of a dengue-like illness appeared in a Chinese medical encyclopaedia during the Jin Dynasty, which referred to a "water poison" associated with flying insects.
- **17th & 18th Centuries:** Epidemics resembling dengue were reported in the West Indies (1635) and Central America (1699).
- **The First Confirmed Case (1780):** Physician Benjamin Rush documented an outbreak in Philadelphia, coining the term "break-bone fever" to describe the intense muscle and joint pain.
- **20th Century Breakthroughs:** The viral cause and mosquito transmission were only fully understood in the 1900s. Research intensified after World War II due to the massive movement of troops, which spread the four (DENV-1, DENV-2, DENV-3, and DENV-4) distinct virus serotypes globally.

How the Disease Spreads

Dengue is **not contagious** through direct person-to-person contact. It spreads primarily through:

- **Mosquito-Human Cycle:** An uninfected mosquito bites an infected person, becomes a carrier, and then transmits the virus to a healthy person through a subsequent bite.
- **Rare Modes:** Transmission can occasionally occur via blood transfusions, organ transplants, or from a pregnant mother to her baby (maternal transmission).

Common Symptoms

Symptoms usually begin 4–10 days after a mosquito bite and typically last 2–7 days.

- **High Fever:** Sudden onset reaching up to 40°C (104°F).
- **Severe Headache:** Often concentrated behind the eyes.

- Break-bone Pain: Intense muscle and joint aches.
- Rash: A measles-like rash that typically appears 3–5 days after the fever starts.
- Gastrointestinal Issues: Nausea, persistent vomiting, and loss of appetite.

When to Visit a Doctor

Early medical attention is vital as the "critical phase" often begins just as the fever starts to drop. Seek emergency care immediately if you notice warning signs:

- Severe abdominal pain or tenderness.
- Persistent vomiting (unable to keep fluids down).
- Bleeding from the nose, gums, or blood in stool/vomit.
- Difficulty breathing or rapid breathing.
- Extreme fatigue, restlessness, or confusion.
- Cold or clammy skin and a weak pulse.

Preventative Measures

As there is no specific antiviral treatment, prevention focuses on controlling the mosquito population and avoiding bites:

- Personal Protection: Use insect repellents (containing DEET or picaridin) and wear long-sleeved shirts and long pants, especially during peak biting hours (early morning and before sunset).
- Secure Living Spaces: Use window and door screens and insecticide-treated bed nets while sleeping.
- Vaccination: In some countries, a vaccine is available for individuals aged 9–45 who have a confirmed previous dengue infection.