



Zika Virus

[Source: HT](#)

Why in News?

Recently, the **Karnataka State Health Department** issued an alert following [Zika virus detection](#) in mosquito samples from **Talakayalabetta, Chikkaballapura village**.

- The **Zika virus, a mosquito-borne flavivirus**, and its impacts on public health have been a matter of significant concern.

What is Zika Virus?

- **About:** The **Zika virus, a mosquito-borne flavivirus**, that is primarily spread by Aedes mosquitoes, particularly ***Aedes aegypti***.
 - Also, it can also be **transmitted from mother to fetus during pregnancy, as well as through sexual contact, transfusion of blood** and blood products.
 - The Zika virus has an **RNA genome**, and thus a very high potential to accumulate mutations.
 - Genomic studies have suggested that the Zika virus has two lineages: **African and Asian**.
- **History:** Discovered in 1947 in the **Zika forest in Uganda** from infected monkeys, the **first human cases were recorded in 1952 in Uganda and Tanzania**.
 - Outbreaks have occurred across Africa, the Americas, Asia, and the Pacific since 2007.
 - Notable outbreaks have occurred in Indian states like **Kerala and Karnataka** in recent years.
- **Symptoms:** Often asymptomatic; when present, **common symptoms include fever, joint pain, muscle pain**, and headache lasting 2-7 days.
- **Association with Other Conditions:** Linked with **Guillain-Barre syndrome, neuropathy, and myelitis** in adults and children.
 - Also, the **interaction between Zika and dengue viruses significantly impacts disease severity**.
 - Exposure to one can worsen the impact of the other, posing challenges in vaccine development and public health management.
- **Complications:** Infection during pregnancy causes **congenital malformations, such as microcephaly** and other associated conditions.

Note

Guillain-Barre syndrome is a serious autoimmune disorder that affects the peripheral nervous system. The syndrome affects the nerves responsible for muscle movement, pain, temperature, and touch sensations.

- **Microcephaly** is a **birth defect in which babies are born with a smaller than usual head and underdeveloped brain**

- **Treatment and Prevention: No specific treatment available.** Symptomatic relief and medical care advised for worsening conditions.
 - **No vaccine available yet;** prevention focused on **mosquito bite protection**, eliminating breeding sites, and public health initiatives to control mosquito populations.
- **Related Indian Government Initiatives:**
 - **National Guidelines for Zika Virus Disease** under [Integrated Disease Surveillance Programme](#)
 - [Rashtriya Bal Swasthya Karyakram \(RBSK\)](#): It aims to improve the quality of life of children and provide comprehensive care to all children in the community.
 - RBSK involves screening of children from birth to 18 years of age for four Ds:
 - Defects at birth
 - Deficiencies
 - Diseases
 - Development delays including disability

Other Viral Diseases

- | | |
|---|---|
| ▪ Covid-19 | ▪ Measles and Rubella |
| ▪ Dengue | ▪ Influenza |
| ▪ Nipah | ▪ HIV |
| ▪ Ebola | ▪ Mpox |
| ▪ Yellow fever | ▪ Chickenpox |
| ▪ Hepatitis | ▪ West Nile Virus |
| ▪ Japanese Encephalitis | ▪ Polio |
| ▪ Marburg Virus | ▪ Norovirus, Rotavirus and Astrovirus |

UPSC Civil Services Examination, Previous Year Question:

Prelims

Consider the following statements: (2017)

1. In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
2. Sexual transmission of Zika virus disease is possible.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (c)