



# Snakebite Envenoming

## Why in News

According to a new study by the [Indian Council of Medical Research \(ICMR\)](#), **India has the highest number of snakebite cases** in the world, accounting for **nearly 50% of the global snakebite deaths**.

- Snakebite Envenoming (SE) is classified by the [World Health Organisation \(WHO\)](#) as a **High-Priority Neglected Tropical Disease (NTD)**.

## Key Points

### ▪ About:

- SE is a **potentially life-threatening disease** that typically results from the **injection of a mixture of different toxins (venom) following the bite of a Venomous Snake** and can also be caused by having **venom sprayed into the eyes** by certain species of snakes that have the **ability to spit venom as a defence measure**.
- It is a particularly important **public health problem in rural areas of tropical and subtropical countries** situated in Africa, the Middle-East, Asia, Oceania and Latin America.
  - In these regions the risk of snakebite is a daily concern, **especially for rural and peri-urban communities where hundreds of millions of people depend on agriculture** or subsistence hunting and gathering in order to survive.

### ▪ Impact:

- Many snakebite victims, mostly in developing countries, suffer from long-term complications such as deformities, contractures, amputations, visual impairment, renal complications and psychological distress.

### ▪ Deaths from SE:

#### ◦ Global:

- About 5.4 million snake bites occur globally each year, resulting in 1.8 to 2.7 million cases of envenoming.
- There are between 81,410 and 1,37,880 deaths and around three times as many amputations and other permanent disabilities each year, caused by snakebites.

#### ◦ Indian:

- India has seen an estimated 1.2 million snakebite deaths from 2000 to 2019, an average of 58,000 per year.

### ▪ WHO's Roadmap for SE:

- WHO launched its roadmap with an aim **to halve death and disability from snakebite by 2030**.

- In order to create a sustainable market for antivenoms there is a need for a 25% increase in the number of competent manufacturers by 2030.
- WHO has planned a pilot project to create a global antivenom stockpile.
- Integrating snakebite treatment and response into national health plans in affected countries, including better training of health personnel and educating communities.

▪ **Indian Initiatives:**

- Much before the WHO roadmap was launched, researchers from ICMR started community awareness and health system capacity building from the year 2013.
  - They are continuing their work through a national study funded by the National Task Force on snakebite, ICMR.

▪ **Concerns:**

◦ **Unawareness among Communities:**

- Lack of awareness, inadequate knowledge of prevention of snakebite and lack of first aid amongst the community, as well as peripheral healthcare workers, delay in receiving lifesaving treatment, and non-availability of trained medical officers for management of snakebite contribute to a higher number of deaths.
- Belief in a snake god, ability of tamarind seeds or magnets to reduce the venom effect were some of the superstitions.

◦ **No Information on Venomous and Non-Venomous snake:**

- There is **no 'IEC' (Information, Education, and Communication) material** available on the identification of venomous and non-venomous snakes in government healthcare facilities.

▪ **Recommendations:**

◦ **Curriculum on Snakebite Management:**

- The study has recommended the inclusion of snakebite management in the curriculum of training institutions of state public health departments in India, mandatory short-term training of medical graduates during their internship and also as a part of the induction training on joining state health services in India.

◦ **Multi-sectoral Approach:**

- A multi-sectoral approach of community awareness, capacity building of healthcare facilities for reducing the mortality and morbidity due to snakebite envenoming in India.

[Source: IE](#)

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