



Lymphatic Filariasis

[Source: PIB](#)

Why in News?

Recently, the Union Minister of State for Health and Family Welfare launched the first phase of the **Bi-annual Nationwide Mass Drug Administration (MDA) campaign for Lymphatic filariasis (LF) elimination.**

Note:

- The campaign aims to check disease transmission by **providing free preventive medications** to the residents in areas affected by the disease. The campaign will cover 92 districts across 11 states.

What is Lymphatic Filariasis?

- **About:**
 - Lymphatic filariasis, commonly known as **elephantiasis**, is a **neglected tropical disease(NTD)** caused by infection with **filarial parasites** transmitted through mosquitoes.
- **Prevalence:**
 - In 2021, approximately 882.5 million people in 44 countries lived in areas requiring preventive chemotherapy to halt the spread of infection.
 - LF is a serious public health problem in India. Currently, there are **345 lymphatic filariasis endemic districts in 20 states** and union territories of the country.
 - 75% of MDA districts are from 5 states Bihar, Jharkhand, UP, Odisha and Telangana.
 - Lymphatic filariasis is more prevalent among the **urban poor and affects all segments of the rural population.**
- **Impact:**
 - The infection **starts in childhood and accumulates through adulthood**, resulting in irreversible chronic disease conditions.
 - The disease inflicts stigma, mental suffering, social deprivation and economic loss and is a major cause of poverty in the affected communities.
- **Cause and Transmission:**
 - **Parasitic Infection:**
 - Lymphatic filariasis is caused by infection with parasites classified as nematodes (roundworms) of the family Filarioididea. There are 3 types of these thread-like filarial worms:
 - **Wuchereria bancrofti** (responsible for 90% of the cases)
 - **Brugia malayi** (causes most of the remainder of the cases)
 - **Brugia timori** (which also causes the disease)
 - **Transmission Cycle:**
 - Adult worms reside in the **lymphatic vessels**, producing microfilariae that

circulate in the blood.

- Mosquitoes become infected by biting an infected host and transmit the larvae to humans, perpetuating the transmission cycle.

▪ **Symptoms and Complications:**

◦ **Asymptomatic and Chronic Conditions:**

- The majority of infections are asymptomatic, but chronic conditions can lead to **lymphoedema** (swelling of the limbs), **elephantiasis** (thickening of the skin and tissues), and hydrocele (swelling of the scrotum), causing **physical disfigurement and psychological distress**.

◦ **Acute Episodes:**

- Acute **inflammatory episodes** often accompany chronic conditions, leading to debilitating symptoms and loss of productivity among affected individuals.

▪ **Treatment and Prevention:**

◦ **Preventive Chemotherapy:**

- MDA with annual doses of medicines to the at-risk population is the [World Health Organization \(WHO\)](#) recommended strategy for eliminating lymphatic filariasis.

◦ **MDA Regimens:**

- Different drug regimens are recommended based on co-endemicity with other filarial diseases, aiming to **reduce microfilariae density and interrupt transmission**.

◦ **Morbidity Management:**

- **Surgery, hygiene measures, and clinical care** are essential for managing chronic manifestations and preventing disease progression.

◦ **Vector Control:**

- Supplemental strategies such as **mosquito control help reduce transmission** and complement preventive chemotherapy efforts.

▪ **WHO Response and Goals:**

◦ **Global Programme to Eliminate Lymphatic Filariasis (GPELF):**

- Launched in 2000, GPELF aims to **eliminate lymphatic filariasis as a public health problem** through preventive chemotherapy and morbidity management.
- In 2020, GPELF set the following goals for the new NTD Road Map (2021–2030):
 - **Validation:** 80% of endemic countries (58) to validate elimination, maintaining low infection rates post-MDA.
 - **Surveillance:** All endemic countries (72) to implement surveillance to prevent disease resurgence.
 - **MDA Reduction:** Targeting zero population needing mass drug administration.

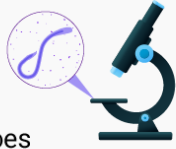
▪ **India's Initiatives:**

- **Mission Mode India Multi-drug administration (MDA) Campaign** twice a year synchronized with **National Deworming Day (10th Feb and 10th August)**
- **India is committed to eliminating Lymphatic Filariasis by 2027**, three years before the global target.

DISEASE

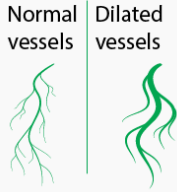
Infection

Filarial parasites spread by mosquitoes



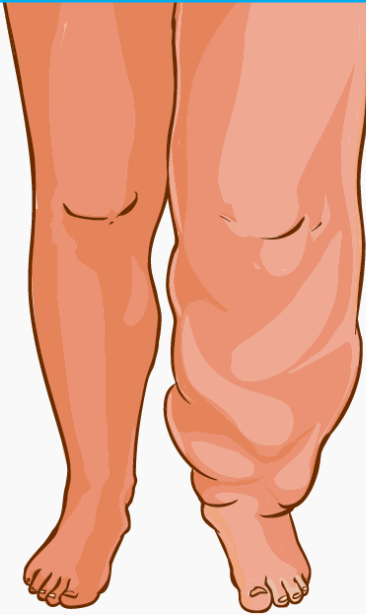
Disease

Impairs function of lymphatic vessels





856 Million people

AT RISK



ELIMINATION

 Large-scale treatment of all at-risk populations can stop spread of infection

 Vector control can supplement impact of large-scale treatment

 Morbidity management & disability prevention to alleviate suffering due to disease

- **6.7 billion** treatments delivered (2000-2016)
- **499 million** people no longer require treatment
- Prevented or cured more than **97 million cases**
- **US\$ 100 billion** averted lifetime economic loss

Lymphatic Filariasis eliminated as a public health problem in 10 countries