

## What is lymphatic filariasis?

Lymphatic filariasis (LF) is a severely debilitating and stigmatizing disease caused by parasitic worms. These worms lodge in the lymphatic system—the network of nodes and vessels that maintain the fluid balance between the tissues and blood—which is an essential component of the body's immune system. The worms live for 4 to 6 years, producing millions of microfilariae (immature worms) that circulate in the bloodstream and are picked up by mosquitoes that then transmit the infection.



A young Indian woman suffering from elephantiasis of the leg.

LF affects men, women and children. The disease is usually acquired in early childhood, although it generally manifests itself several years later.



## What are the key facts about LF?

- LF commonly results in damage to the lymphatic system.
- In its most obvious manifestations, LF causes elephantiasis, an abnormal enlargement of the limbs (legs or arms) and of the genitals (scrotum, breasts and vulva).
- LF is present in remote rural areas and in disfavoured urban areas; it is truly a disease of poverty.
- To stop LF transmission, effective and safe drugs that are either free or inexpensive are currently available.

## What is the global burden of LF?

More than **1 billion people** in over 80 countries are **at risk of illness**.

- Over 40 million people are incapacitated and disfigured by LF.
- More than 120 million people are affected by LF. Almost one-third of these people live in India, another third reside in Africa, and most of the remainder are in South Asia, the Pacific and the Americas.

## What impact does LF have?

LF is disfiguring and painful and causes enormous suffering and disability to those affected, preventing them from leading a normal life. Its clinical manifestations result not only in physical but also in psychological damage. Socially, the disease affects the person's interaction with other members of the community. As a consequence, LF has a devastating impact on the local economies of the poorest populations of the world.



## What are the objectives of the global programme to eliminate LF?

WHO's commitment to fight LF originated in a resolution adopted at the World Health Assembly in 1997 calling for the global elimination of LF as a public health problem.

The global programme has two major objectives:

- To stop the spread of filarial infection in all endemic countries;
- To alleviate and prevent the suffering and disability of affected people.

## What are the strategies for achieving these objectives?

To stop the spread of infection, the strategy is:

- to treat all populations at risk with either:
  - a single-dose two-drug regimen of:
    - diethylcarbamazine (DEC) + albendazole; or
    - ivermectin + albendazole; given once yearly during 4-6 years; or
  - a one-drug regimen of:
    - DEC-fortified table/cooking salt used daily for a period of 6-12 months.

To alleviate and prevent disability, the strategy focuses on:

- health education to raise awareness in patients and to promote the benefits of intensive simple hygiene activities on affected body parts.



Shertallai, India: Voluntary organizations produce educational materials and coordinate community action against LF.

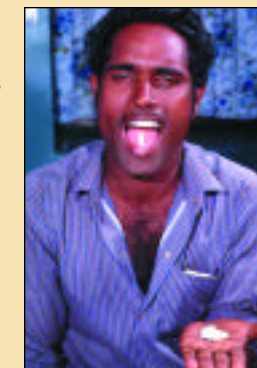


Shertallai, India: Advertising hoarding on the highway. «Let us work together to eliminate LF from the face of Kerala.»

## What actions have already been taken against LF?

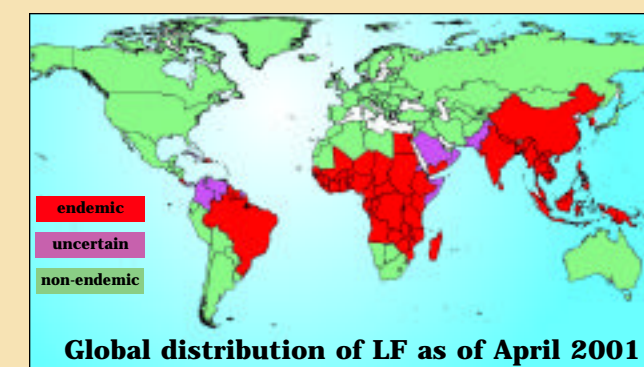
Following the 1997 World Health Assembly resolution:

- A collaboration with GlaxoSmithKline was established that includes donation of the albendazole needed to support the global programme to eliminate LF.
- Expansion of the Mectizan® Donation Program by Merck & Co., Inc. now provides sufficient donated ivermectin for LF elimination in Africa.
- Programme review groups, consisting of recognized health experts, were established to approve applications and plans for donated drugs in endemic countries.
- A Global Alliance of more than 30 international public and private organizations was established for LF elimination. It includes the Arab Fund for Economic and Social Development, the Department for International Development of the United Kingdom (DFID), the Ministry of Health and Welfare of Japan, the World Bank, UNICEF and WHO.
- A technical advisory group for the Global Alliance was formed in March 2000 to oversee technical soundness of the global programme to eliminate LF.



By the end of the year 2000:

- 15 million people at risk in almost 20 countries were covered by active LF elimination programmes.
- Meetings for national LF elimination programme managers were held in all regions.
- Sampling techniques for validation of interruption of transmission of LF elimination were validated.



## What are the future actions planned against LF?

By the end of the year 2001:

- 30 million people at risk will be covered by active LF elimination programmes.
- Mapping the global distribution of infection will be completed in over half of the endemic countries.
- Training for programme managers and other health workers will be implemented.

By the end of the year 2002:

- 50 million people at risk will be covered by active LF elimination programmes.
- A global review of progress will be summarized.



WHO promotes the benefits of simple hygiene activities on affected body parts.

### Further information from:

Lymphatic Filariasis Elimination Programme  
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## PROGRESS MADE SO FAR

By the end of 2000:

- 25 countries/areas (representing all 5 endemic regions) had developed national plans of action and/or set up national task forces in Africa (Ghana, Kenya, Nigeria, Togo, Uganda, United Republic of Tanzania), the Americas (Dominican Republic), the Eastern Mediterranean (Egypt), South-East Asia (Bangladesh, India, Maldives, Myanmar, Sri Lanka) and the Western Pacific (American Samoa, Cook Islands, Fiji, French Polynesia, Kiribati, Niue, Philippines, Samoa, Tokelau, Tonga, Vanuatu, Viet Nam).
- All these countries/areas had submitted applications for donated albendazole.
- All these countries had been approved to initiate limited-scale activities, where close monitoring for safety and programmatic details will be carried out.
- 14 countries already have LF active programmes in place for mass drug administration.

### FLASH TIPS

*Did you know that...*

*...two of the most widely-used antiparasitic drugs for treating LF, albendazole and ivermectin, are donated by their respective developers GlaxoSmithKline and Merck & Co., Inc?*

*...a simple daytime test using a finger-prick blood droplet can diagnose LF? This test reduces the need for the costly, awkward and unpopular night-time blood sampling and microscopic examination that used to be the only way to determine infection, since microfilariae in most parts of the world are found in the blood only around midnight.*

*...simple hygiene activities such as regular washing with soap and water and regular exercising of the limbs are dramatically effective in preventing painful, debilitating and damaging episodes of lymphangitis (inflammation of the lymphatic vessels) ?*

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