

WORM of the WEEK

Lymphatic Filariasis

Wuchereria bancrofti AND *Brugia malayi* AND *Brugia timori*

Lymphatic Filariasis

A physically and socially debilitating disease, lymphatic filariasis affects over **120 million** people in 80 different countries. The thread-like parasitic **filarial worms**, *Wuchereria bancrofti* (causing most infections worldwide), and *Brugia malayi* and *Brugia timori* (primarily in Asia) lodge in the human **lymphatic system**. There, adult worms mate and produce millions of microscopic microfilariae that circulate in the person's blood. Infection spreads by mosquito bites containing larval worms that travel to lymph and grow into adults which takes about six months. Adult worms can live 5 to 7 years.

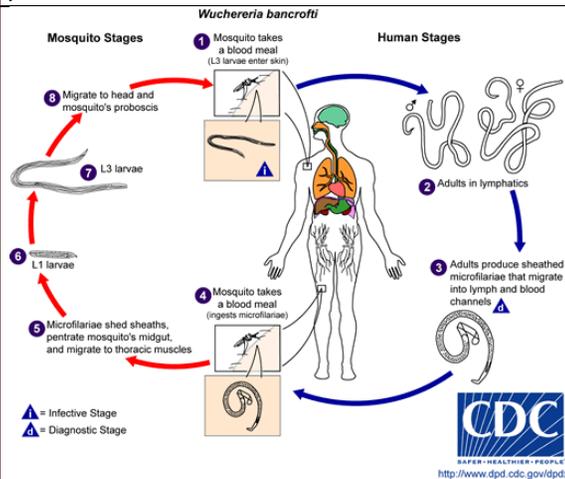
Symptoms

Sometimes called **elephantiasis** due to the engorgement and thickening of skin, lymphatic filariasis is characterized by **lymphedema**, or fluid collection due to improper functioning of the lymph system resulting in swelling. **Most infected individuals are asymptomatic** and will never develop symptoms. In the severest cases, fluid accumulates in the legs, arms, breasts, and genitalia. Infected persons are at increased risk for bacterial infections in the skin and lymph system.

Populations/Countries Affected

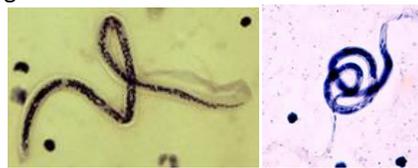


Areas in red indicate geographic distribution of LF.



Diagnosis

Microscopic identification of **microfilariae** in blood smear. Blood collection should be done at night.



Treatment

Diethylcarbamazine (DEC) kills microfilaria and some of the adult worms; **Ivermectin** kills microfilaria.

Prevention and Control

The best way to avoid lymphatic filariasis is to avoid mosquito bites (sleep under mosquito net, use repellent, wear long sleeves and trousers). In 1997, the World Health Assembly called for the global elimination of lymphatic filariasis as a public health problem. The strategy for elimination is based on treating everyone eligible to take the medicine living in an affected community with a dose of two drugs: albendazole is used in conjunction with ivermectin (sub-Saharan Africa) and with DEC (elsewhere in world).

Sources:

<http://www.cdc.gov/ncidod/dpd/parasites/lymphaticfilariasis/index.htm>

<http://www.cartercenter.org/health/lf/index.html>

Just 50 cents campaign: <http://www.globalnetwork.org/just50cents>

