

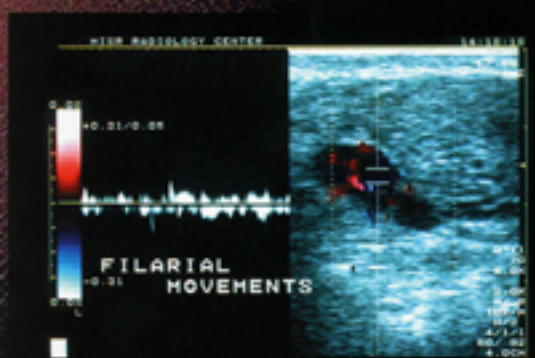
The cycle of filariasis



A



B



C



D

Filariasis, a parasitic disease caused by microscopic, thread-like worms living in the human lymph system, is transferred from person to person by mosquitoes (A). Once in the body, immature worms grow to become thin adult worms several inches long. They live for many years and produce thousands of offspring that circulate in the blood (B). An ultrasound test can be used to detect adult worms in lymphatic vessels (C). Persons may be unaware that they have the infection until they develop swellings caused by blocked lymphatic vessels. Lymphatic fluid can accumulate in the arms, legs, breasts or genital area. The skin gradually thickens and hardens into a condition called elephantiasis (D). While not life-threatening, filariasis is an important cause of disability; affected people are prone to recurrent bacterial infections, and the social and psychological effects of the disease can be devastating.

A simple blood test, similar to a home pregnancy test, allows health care workers in filariasis-infected regions to quickly, easily and inexpensively determine whether a person is infected (E). The test is used to map the distribution of filariasis for disease elimination campaigns.

Because the disease spreads from human to human only through insect bites, mass drug administration can cure existing filarial infections and prevent new cases by reducing the number of parasites available for transmission. The drugs are inexpensive, safe and effective. A global campaign based on mass treatment shows great potential to make lymphatic filariasis a disease that, like smallpox, appears only in medical history books.



E