

## Article written by Patricia van Poppel for Canada's Lymphedema Magazine PATHWAYS

### Gratitude for Life

It has been only 2 days that I left Haiti with a sense of gratitude for life.

The life that I have been given and the life that I am able to live.

This was my second time around, and Haiti does something to you that is beyond words, beyond explanation, beyond imagination as it affects everyone on its own.

The International Lymphedema and Wound Care Institute (ILWTI) trains global volunteers as specialists in wound care, edema and lymphedema management to support locally operated clinics in underserved areas with the goal to alleviate global suffering caused by wounds, edema, and Lymphedema.

The program in Haiti is destined to be a unique "Center of Excellence" for the study and treatment of a most serious neglected tropical disease (NTD) --Lymphatic Filariasis.

Lymphatic Filariasis (LF) is a parasitic infection spread by mosquitos that is endemic in 83 countries with over 1.3 billion people at risk of contracting it.

In the Western hemisphere alone, LF is endemic in seven countries.

Eight-eight percent of Haiti is a risk zone for Lymphatic Filariasis.

Léogâne is the LF risk center in Haiti with a population of over 250,000.

At the start of control efforts in 2000 --when Mass Drug Administration began-- there was 99% rate of exposure and greater than 80% rate of infection.

LF is a debilitating and disfiguring disease caused by small parasites known as microfilariae that are transmitted by mosquitos from one infected patient to another human host.

Eight main species of nematodes (roundworms) can cause filariasis; however, the most common is *Wucheria Bancrofti*, followed by *Brugia* organisms.

The nematodes can live for several years in the lymphatic vessels and lymph nodes.

The female worms produce microfilariae, which circulate in the blood.

The microfilariae infect biting mosquitoes. It then develops into the infective filariform larvae within 1-2 weeks.

During subsequent bites by the mosquito, the larvae infect human hosts and migrate to the lymphatic tissues, where they develop into adult worms within a year.

Their normal life cycle is 5-6 years.

Death of the adult worm causes an inflammatory reaction that manifests as acute filarial lymphangitis (AFL).

Granulomatous nodule formation and recurrent episodes of AFL impair lymphatic flow, predisposing the host to secondary bacterial infections, which result in fibrosis, lymphatic obstruction, and lymphedema. High-protein lymphedema causes further inflammation and tissue destruction.

Once damage is sufficient to overwhelm the lymphatic system, chronic swelling of the limbs results in lymphedema and/or if it affects the genitals, hydrocele ensues.

Lymphatic Filariasis has 7 stages of severity from minimal/reversible edema to massive elephantiasis leading to significant functional impairments and skin dysfunction.

Since LF does not always result in clinical symptoms (may take years to develop), the most accurate way to determine if someone is infected is a blood test.

In most parts of the world, the parasites have a "nocturnal periodicity" that restricts their appearance in the blood to only the hours of 10pm - 2am.

Therefore, the diagnosis of LF traditionally has depended on the laboratory examination of the blood taken between 10pm and 2am when microfilaria are most common in peripheral blood.

During the day, the microfilaria reside in the deep vasculature of the lungs; it is proposed this may be due to oxygen tension or temperature.

They circulate during the night in the peripheral vascular system where they can be picked up by mosquitoes via a blood meal.

The strategy for interrupting transmission is an annual single co-administration of two drugs for at least five years; massive drug administration (MDA).

Diethylcarbamazine (DEC) and Albendazol are the drugs of choice. Additionally, the production and distribution of DEC-fortified salt to all Haitian citizens is also provided to maintain coverage through food consumption.

Haiti has been given MDA since 2000 and over 8 million of the 10.5 million people have been dosed. MDA kills the parasite but does not cure damage to the lymphatics caused by the parasites.

ILWTI sends a team of specifically trained volunteers several times a year to Leogane, Haiti to provide modified Complete Decongestive Therapy (CDT), education and wound care to LF patients.

The response and gratitude of our LF patients is heart warming and empowering.

Even though there are many ongoing challenges in Haiti, collapsed buildings stemming from the 2010 earthquake, garbage, poverty and overt pollution throughout the country, Haiti definitely makes a

lasting impact on all who visit.

Humanitarian volunteers are people trying to help, support and work towards a common goal: to improve the quality of life of another human being, another individual who is a parent, a spouse, a loved one.

The magnitude of this program reaches beyond words; it is the feeling of empowerment, the feeling of accomplishment, the feeling of being needed, wanted and appreciated.

We have put in countless hours of training and education, gained a tremendous amount of knowledge on every trip, and enjoy experiencing the positive impact our efforts are making. The human connection achieved while working with LF patients, is hard to put into words; we just know we look forward to our next trip.

We cannot change their country, we cannot change their circumstances but we can change one person at a time with our hands, our knowledge, our passion and determination to reduce and heal their long term debilitating conditions.

It's hard to believe but one of our patients had a reduction of 20 centimeters in just 1 day!

We had to measure twice and review the pictures to believe what was in front of our eyes.

Even with the smallest resources we can accomplish significant changes.

These trips have changed my life, my view on life and how I live my life.

It is impossible to physically help everyone in this world dealing with lymphedema, even though I would love too.

But one thing that I will do is spread awareness and raise my voice.

I will continue leading humanitarian trips to Haiti or anywhere else in the world.

If you have become curious, and would like to learn more about our program, or like to join us on our next trip, please visit

If you have a product that you would like to donate, please contact Patricia van Poppel, either by email: [clwc88@gmail.com](mailto:clwc88@gmail.com) or by phone: 1306-529-9488

We are always in need of:

Compression Garments - initial and long term

Compression Wrapping Supplies - short stretch bandages and associated items

Wound Care Supplies - sterile and non-sterile

Medical Instruments - disposable and autoclavable

Medications, disinfectants, topicals - can be accepted until 6 months after expiration date

Pou tout tan rekonesan, forever grateful

Patricia van Poppel, RMT, CLT, CHP