



## Clinic hoping to prove worth of hyperbaric therapy



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A controversial therapy to help heal diabetic ulcers could bring an end to many of the limb amputations that happen every year in Canada. But governments are reluctant to fund the therapy. So a clinic run on charitable donations is stepping in to fill the void.

Approximately 15 per cent of all people living with diabetes will be affected by a foot ulcer during their lifetime. That's because the extra concentrations of glucose in their blood from their diabetes can damage their blood vessels and nerves -- leading to a loss of circulation and sensation in their feet.

This damage can put their feet at increased risk of infection and ulcers, which if left untreated can lead to serious complications, such as gangrene and sepsis.

Every day in Canada, about two dozen people have a toe, foot or entire leg amputated. Some doctors suspect many of these amputations are unnecessary because a treatment could help heal these wounds.

The treatment is called hyperbaric therapy:

- Patients lie down inside a chamber that is then filled with 100 per cent pressurized oxygen.
- The oxygen stimulates the growth of new blood vessels, improving blood flow to areas with reduced circulation.
- The therapy also boosts white blood cell activity in damaged areas, which should help control infections.

Marvin Thomas has been using the therapy. The 44-year-old former chef developed diabetes 12 years ago. He is now limited to a wheelchair and developed an ulcer on his right foot that refused to heal. It was so large, doctors wanted to cut off his leg.

"I was devastated. I didn't know what to think," he says.

Five days a week, he receives hyperbaric therapy. After 10 weeks of treatment, his foot is healing.

"It's closing in on a miracle," he says, wondering why more diabetics don't use the therapy. "If there is a chance you can actually save a leg... why not? Why go and amputate when there is a better way."

Many of those facing amputation are never offered the option because there are fewer than a dozen recognized hyperbaric therapy clinics in the country. Most of them have long waiting lists.

There are some private clinics but most of them are not licensed and so are technically illegal. Many also offer hyperbaric therapy for conditions that have not been proven effective.

While hyperbaric therapy is an accepted treatment in many countries, most provinces in Canada don't cover it for diabetic ulcers, saying its benefits haven't been scientifically proven. Ontario for example, pays for physician supervision but not for the chambers and the treatments themselves.

So some frustrated doctors have set up a charity-based hyperbaric clinic in north Toronto. The Judy Dan Wound Care Centre was funded by foundations and donations. Treatment is free, attracting desperate patients like Glenn Fontaine.

Fontaine also has had diabetes for 12 years and recently had all the toes on his left foot amputated and now he is desperate to save his foot.

"They've been telling me to have my foot amputated and I've been fighting them every step of the way," he says. "It's part of me. I want to keep it."

Ron Linden has been doing hyperbaric work for 20 years. He is a family physician who, with some other docs, set up the clinic. They raised \$600,000 to buy three chambers and some of the operating fees. He says the treatment should be more easily accessible in Canada.

"When I meet colleagues at international conferences, they look at me like I am coming from the Third World," he says. "They don't understand why this isn't accessible in Canada."

Linden believes that amputation is barbaric and only adds to a diabetic's problems.

"It's pretty horrible for the patients, it affects their entire life. Elderly patients have a hard time functioning with a prosthetic device. And we find those who lose one limb generally, within 5 years, lose the other limb. After that most die."

Linden says his clinic has had great success and is now collecting before and after pictures of the limbs they've saved.

"We're aiming for a 75 per cent success rate of avoiding amputations. So far, we have about a 50 per cent rate because we've treated some difficult wounds. We started in January and so far we have treated 50 people."

Linden says his treatment is not only quite successful, it's cost-effective. Amputation costs about \$70,000 when the cost of surgery, rehab and prosthetics are included. A full program of hyperbaric therapy is about \$3,000 to \$12,000.

Now the Judy Dan Wound Care Centre is also becoming a clinical testing site where 120 patients will receive either hyperbaric therapy or a placebo treatment to prove the therapy's value. The study is being monitored by experts at the University of Toronto and McMaster University and is being partially funded by the Ontario Ministry of Health.

"This study was set up because it is essential. The previous data is inadequate," says Dr. Wilf DeMajo, who heads the hyperbaric unit at Toronto General Hospital. "This will be watched. This will be a landmark study, without a doubt."

If the study finds the therapy is effective, expect the number of treatment centres across the country to expand, a prospect that excites Linden.

"We shouldn't have to rely on charity to keep running. Once we show whether this is a better way, hopefully we will get funding."

*With a report by CTV's medical specialist Avis Favaro and producer Elizabeth St. Philip*

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