Giving feet a little help

By Carl Nelson The Guelph Mercury

Your feet are probably the hardest working part of your body. But when the old dogs are barking, it might be more than a shoe problem.

And it could lead to knee, hip, back problems. The list goes on.

The problem with diagnosing foot problems in the past, said Dr. Philip McAllister who has a chiropractic practice in Stone Road Mall, was trying to design an orthotic or shoe insert, by making an impression or mould of a person's foot. But that didn't identify problems when walking. The practice is called static casting because the foot was stationary.

In motion, things change including understanding what a foot needs.

"When we did static casting, there was always a lot of adjustments", he said.

For anyone wondering why a chiropractor would concern himself with feet, McAllister explained that for the musculoskeletal system (bones and muscles) it's a package deal. The foot is connected to the knee and hip and back. So, foot problems can lead to back problems.

But what works one way, can work another way. Back problems can cause feet problems as well.

Computer technology has arrived to help doctors understand how a person walks and what kind of stresses and strains are involved on impact. Analysis of the computer data can lead to a determination of where in the body the problem is and the design of the orthotic to correct it.

McAllister uses the Footmaxx system.

The technology isn't new, he said. What's new is the size.

Before micro-technology, the system would require a patient to walk across a large pad with sensors monitoring the stride and how the foot is placed. Advancements led to a foot pad about three feet square wired into a computer - McAllister uses a laptop - which translates the image of the footprint into a visual presentation. It looks like someone put coloured ink on the bottom of their foot and took a step. Imagine using, red ink for the area of hardest impact and yellow ink for areas where the foot provides less downward pressure.

But the computer can translate the image into three dimensions using the same colours in what looks like a computer display of a mountain showing higher and lower pressure areas.

The process takes literally minutes because the pad takes various measurements of the foot in motion 30 times a second.

McAllister's data is transferred to the orthotic manufacturer in Toronto via a modem and analyzed further. About 72 hours after, the orthotic arrives for the patient. Most of the problems people face with their feet are the result of "environmental" problems, McAllister said.

Dealing With Foot Problems - Chiropractor Dr. Philip McAllister uses the Footmaxx system to determine the exact shape of a shoe insert or orthotic his patients will need.

People's feet aren't designed for wearing heavy boots and walking on hard surfaces. They area also not designed to wear stiletto-heeled shoes. Add to that the wear and tear of age and its explains how an estimated 75 percent of the population have feet related problems.

"It all comes back to haunt you," McAllister said citing a myriad of minor injuries many people experience in their youth.

With the technology, the orthotic corrects the problem with a person's gait. For youngsters, it could prevent future problems. For older people, after years of foot abuse, it should provide more comfort.

The orthotics are made of plastic and come designed for various types of shoes. Athletic shoe orthotics are different in shape than dress shoe orthotics. They are made of plastics and are warranties for two years.

"Ideally, a person should have new shoes (for the orthotics)," McAllister said. Older shoes have already been worn to the way a person walks. "New shoes are neutral."

As for over the counter orthotics, no two orthotics are the same, he added. The 'one-design fits all' has its limitations for correcting problems with the way they walk.

"No two people will ever walk across the mat with the same gait," he said.