

Technology at the service of customized insoles



Since a few weeks, our island can boast foot orthotics produced with high level technology. With the help of a computerized gait and pressure analysis system, the Sint Maarten Health Care Clinic added the fitting of customized insoles to be worn in shoes to their services.

Stationary vs. dynamic diagnosis

Normally orthotics (insoles worn in shoes) are made after a diagnosis of the patient in a stationary position. However, it is scientifically proven that the

pressure points of each individual are different when walking from when people are just in a standing position.

The high tech diagnostic system used at Sint Maarten Health Care Clinic (SMHCC) is called Footmaxx. It captures dynamic steps and calculates normal foot function for the patient. The logic of a dynamic diagnosis is that pathology occurs while a person is in motion, not while sitting or lying down. A normal person takes approximately 10,000 steps a day. It is abnormal foot function that creates ongoing foot

and musculoskeletal conditions.

At the practice of SMHCC, patients will be asked to walk over a pad or foot scanner, which is provided with multiple sensors and will precisely measure the pressure points put by each foot. The foot scanner is connected to a computer, on which the patients will see a three dimensional, sophisticated analysis of their foot and way of walking.

With this information, orthotics can be made. Orthotics have a durability of three to five years. They

can be adjusted to any type of shoe.

After the scan has been made, the gait and pressure analysis are sent to the manufacturer with added notes from the orthopaedic manual therapist. It takes about one week for the clinic to receive the orthotics. A second consultation is scheduled in order to make any necessary adjustments to the orthotics.

Professional assessment before foot scan

Patients that require an orthotic will first go through a full body assessment consisting of a meticulous

examination of the spine, pelvis, legs and feet. This is due to the fact that bad alignments can also be caused by joint problems in the spine. According to the professionals, it is better to treat the disorders in the spine first before making an accurate scan of the foot. It is also possible that after treatment of the spine, pelvis or hips, an orthotic is not needed, as the problem lies elsewhere in the body. At SMHCC, only orthopaedic manual therapists are making the scans, as they are more specialized in the examination and treatment of the spine.

The professionals attending the patients in this area are Debbie Feijen and Martijn Groot. Both graduated as physiotherapists in the Netherlands and both hold Master's degrees in orthopaedic manual therapy. Together they have more than five years experience in the field.

Benefits from orthotics

"The decision to invest in the system Footmaxx was made after discussions with Dr. Bocher, orthopaedic surgeon at St. Maarten Medical Center, about the advantages of the foot-scan. The population of St. Maarten can take advantage of the opportunity of having an orthotic made in a much quicker and cheaper way than before, which can help them prevent and cure joint problems or other medical indications, such as rheumatism and diabetes" said Debbie Feijen.

Orthotics have a positive effect on the alignment of the foot. The alignment has a big influence on complaints of the lower extremities: hip, knee, ankle and the lower back. An orthotic creates a good basis for the foot that can have a positive effect on joints or joint problems. Medical research has also shown that orthotics can be used for many indications, for instance rheumatoid arthritis, heel spur, plantar fasciitis, metatarsalgia, sesamoiditis, hallux valgus, bunion, tarsal tunnel syndrome, posterior tibial dys-

function and diabetes.

Diabetes affects a large percentage of the population on St. Maarten. Orthotics can have a preventive effect for wounds on diabetic feet and can even help to cure them by taking the pressure away from the wounds. On a long term basis, they can even reduce the large percentage of amputations that St. Maarten now has.

Also orthotics can be specifically designed for sports. All over the world, athletes are benefiting from custom-made sports orthotics. Orthotics improve the alignment of the foot thus reducing the risk of injuries and at the same time improving the performance of the athlete.

Most insurances will cover at least part of the expenses. Each individual should check with the insurance company to find out what the coverage is.

If you need more information, contact Sint Maarten Health Care Clinic, located at Welfare Road 15 in Cole Bay, telephone/fax 544-3568.

CONDITION ORTHOTICS CAN HELP

- pain in the heel, foot arch ankle and lower calf
- pain and inflammation in the toes
- back, hip and knee complaints
- pain and numbness in ball of foot
- pain/prevention of joint problems
- poor circulation sensation
- sport injuries and performance

