

The importance of custom made insoles in reducing plantar pressure of diabetic patients

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Abstract

Neuropathy may result in foot form and functional changes, leading to deformity and ulceration. It often takes a long time for an ulcer to heal. Changes in blood vessel walls in diabetic patients result in increased blood vessels stiffness, which in turn reduces circulation to lower legs and feet; this will reduce the injury healing and infection fighting ability of the body. leading to complications of foot injuries which can result in amputation.

Gait analysis is a very important tool for determining which area of patient's feet takes the most pressure during walking; this can be very helpful in finding preventive treatments for ulceration. Proper management of the plantar pressure can help prevent ulcer from forming, or help ulcer to heal. This can increase the chances of saving patient limb from amputation.

The objective of this study is to look at the importance of custom made insoles in reducing plantar pressure in diabetic patients with high plantar pressure using both regular and medical diabetic shoes.

Bare foot and in shoe (patients regular shoes) plantar pressure measurements of patients will be made using e-med plat form and pedar is shoe system from Novel. Patients bare foot measurement will be used to manufacture insoles for them. Two in shoe measurements will be obtained using these insoles, once with patient's regular shoes and a second measurement will be obtained using prescribed medical shoe (diabetic shoes).