

## Purpose

To evaluate a novel technology: PainShield OTC (NanoVibronix Inc. NY), which has been proven in a laboratory setting to have a positive affect on epidermal growth and its precursors in the dermal- epidermal junction, on Wound Healing in Diabetic Foot Ulcers in a clinical setting.

## Methods

A series of patients with chronic Diabetic Foot Ulcers were given therapy with a PainShield OTC device for a period of one week in addition to standard wound care therapy including offloading. The ulcers treated were of a neuroischemic mix and had all been present for at least 6 months and stalled in their healing for at least 60 days. The device was incorporated into their primary bandage and was cycled on and off for 30 minutes 24 hours a day. Patients were reevaluated at the end of one week.

## Results

Therapy with PainShield OTC showed significant changes in the wound. Necrotic/ Fibrotic tissue was less adhesive to the wound bed by a factor of 3+. Purulent Drainage and other signs of infections were reduced by a factor of 4+. Wound size was reduced by an average of 20%. Patients also related a significant decrease in pain both wound related and neuropathic.

## Conclusions

PainShield OTC is a good adjunctive therapy to the wound care regiment. More research needs to be conducted to evaluate how Acoustic Waves affect the wound and periwound tissue. A double blinded study is currently being started to examine these issues on a gross, clinical, microbiological and histological scale.