

# The Use of MIST Therapy in the Management of Complex Diabetic Foot Wounds

Paul Chadwick, Principal Podiatrist, NHS Salford

## Introduction

The MIST Therapy system is used widely in the USA has been proven to promote wound healing in chronic, "hard to heal" and acute wounds by delivering low energy, low intensity ultrasound to the wound bed via a continuous saline mist.

An RCT carried out on diabetic foot ulcers in the USA showed a 41% healing rate compared to 14% sham control over 12 weeks. Claiming "Twice the Healing in Half the Time"<sup>[1]</sup>. This is one of the first studies in the UK which explores the use of MIST Therapy on diabetic foot ulcers.

## Method

A prospective case study of a person with Type 2 diabetes with two non-healing foot ulcers treated with conventional management which included off-loading, infection management, wound dressing and the addition of MIST Therapy.

The MIST Therapy was applied three times a week for three minutes. Wound progression was monitored with photographs, measurements and wound pain levels. Investigator and the patient rated the treatment regime in terms of overall performance, healing progression, patient comfort and handling on application.

## Results

The wound showed a positive response to treatment resulting in complete healing.

The first wound healed after three weeks of MIST Therapy, the second larger wound healed after six weeks of MIST Therapy.

The therapy was well tolerated. Pain severity scores were extremely low throughout the treatment period.

Both the investigator and patient ratings of the treatment regime were very positive. The wound has remained healed at 6 months follow up.

## Discussion

The patient had a background of neuropathy and ischaemia and had previous amputation for a non healing wound.

The ischaemia created high levels of pain and conventional sharp debridement was difficult and wound bed preparation was impossible.

The use of MIST Therapy overcame these difficulties and resulted in speedy resolution of a wound in a very high risk patient.

