

Vasodilation

Factors such as adequate perfusion and vasodilation are required to promote the healing process.



Mayo Clinic1*

- Laser Doppler was used to evaluate blood flow in a wound care patient
- Blood flow was assessed at baseline (prior to the 5-minute MIST Therapy treatment) and then 10 minutes after the treatment was concluded
- Vasodilation perfusion continued to improve post-MIST treatment

Perfusion is critical in treating deep tissue pressure injuries (DTPIs)^{2,3}

A retrospective study of 127 DTPIs found 80% did not progress beyond a Stage II ulcer with UltraMIST[®] and standard of care (SOC) vs 22% of those treated with SOC alone.³

UltraMIST Therapy improves vasodilation to promote healing.

PROMOTES HEALING

Angiogenesis is an essential component of wound healing, as new capillary development and growth are needed to repair damaged tissue.

MIST[®] Therapy accelerated new blood vessel formation

1250% 1050%

New Blood Vessel Formation



Dark Pink = Blood Vessels

900% _____ 750% _____



MIST Therapy Promoted Vascular Endothelial Growth Factor (VEGF) Expression in Non-Healing DFUs

University of Western Ontario⁴

- Diabetic mouse model
- 5 UltraMIST® treatments
- Granulation tissue cross sections were stained to look at new blood vessel development
- · Blood vessel count
- Control: 25.7 ± 20.3, MIST: 41.2 ± 23.0 (*P*<0.05)

Boston University^{5*}

- 12 patients with an average ulcer duration of 29 weeks
- Three study groups: 1 standard of care (SOC) and 2 UltraMIST groups
- 12 UltraMIST treatments
- VEGF spiked after 6 MIST treaments to stimulate angiogenesis and then declined as the wound moved on to healing
- SOC-treated group: 39% wound area reduction
- UltraMIST-treated group: 86% wound area reduction

*Data were compiled utilizing MIST Therapy. UltraMIST is the successor but maintains the same mechanism of action.

UltraMIST Therapy improves vasodilation to promote healing.





For more information, please refer to the UltraMIST Therapy Instructions for Use.

References: 1. Liedl DA, Kavros SJ. The effect of mist ultra-sound transport technology on cutaneous microcirculatory blood flow. Abstract. SAWC, 2001. **2.** Honaker J, Forston M. Adjunctive use of noncontact low-frequency ultrasound for treatment of suspected deep tissue injury: a case series. *J Wound Ostomy Continence Nurs.* 2011;38(4):394-403. **3.** Honaker JS, Forston MR, Davis EA, Wiesner MM, Morgan JA. Effects of noncontact low-frequency ultrasound on healing of suspected deep tissue injury: A retrospective analysis. *Int Wound J.* 2013;10(1):65-72. **4.** Thawer HA, Houghton PE. Effects of ultrasound delivered through a mist of saline to wounds in mice with diabetes mellitus. *J Wound Care.* 2004;13(5):1-6. **5.** Yao M, Hasturk H, Kantarci A, et al. A pilot study evaluating noncontact low frequency ultrasound and underlying molecular mechanism on diabetic foot ulcers. *Int Wound J.* 2014;11(6):586-593.