



CLINICAL EVIDENCE IN COMPLEX LOWER-EXTREMITY WOUNDS

Fully synthetic. Bioresorbable.

Designed for the wound-healing microenvironment.

Across clinical case series and real-world evaluations, PHOENIX has been used in difficult-to-heal wounds including diabetic foot ulcers, chronic lower-extremity wounds, venous leg ulcers, surgical wounds, and limb-salvage cases.

50 WOUNDS

67.6% MEAN PAR AT 4 WEEKS
80% MEAN PAR AT 8 WEEKS

38 patients; 70% chronic wounds. 66% healed by 12 weeks. Mean time to heal: 49 days. 62% of wounds received ≤ 2 applications. Lambert et al.

76%

AVERAGE WOUND AREA
REDUCTION AT 3 WEEKS

4 patients / 5 neuropathic DFUs that failed prior standard care. All wounds healed in an average of 7.4 weeks. Schilling & Littrell.

7 FOR 7

WOUNDS ACHIEVED
CLOSURE

Limb-salvage case series: 7 complex non-healing wounds in 2 patients. Amputation avoided; average closure ~5.6 weeks after PHOENIX introduction. Aviles.

EVIDENCE ACROSS THE LOWER EXTREMITY:

TABCHI | LIMB SALVAGE

Complex Lower-Extremity Wounds

3 patients facing amputation. One 8-year non-healing wound achieved complete closure within 4 weeks. A dehiscent surgical site treated with PHOENIX + NPWT achieved 80% reduction in 3 weeks, with complete closure of both wounds within 3.5 months.

GAROUFALIS | CASE SERIES

Chronic Foot Wounds

Partial 2nd ray resection: 59% reduction by Day 21, 98% by Day 45, and complete closure by Day 80. A 7-month DFU achieved 83% reduction by Day 7 and complete closure by Day 14.

LANTIS | CHRONIC WOUNDS

Refractory Lower-Extremity Wounds

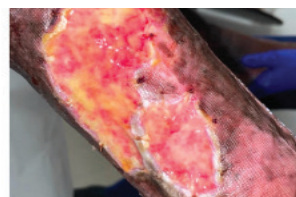
5 patients / 7 chronic wounds. Atypical leg ulcers decreased 28–60% in size with reported reductions in pain. Other cases included DFUs, Charcot foot with osteomyelitis, and mixed arterio-venous disease.

TABCHI | VLU CASE

Complex Venous Leg Ulcers

Bilateral VLUs present for >1 year: 73% and 77% PAR within 3 months and 3 applications. Notable reduction in wound-site pain was reported after the first application.

WOUND HEALING PROGRESSION



Operative debridement and application of PHOENIX Wound Matrix in an atypical leg ulcer with wound healing at 1 week and 4 weeks postop. Lantis et al.



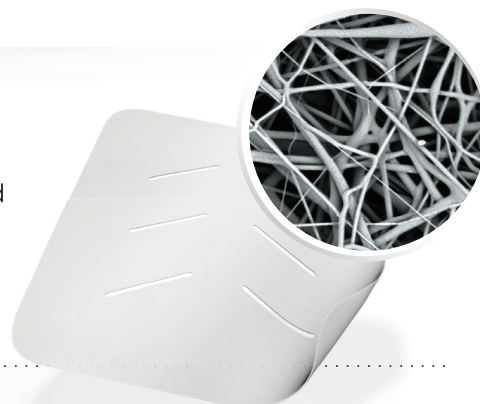
FROM THE WOUND ENVIRONMENT TO WOUND CLOSURE

Clinical and scientific poster highlights
with PHOENIX Wound Matrix®

ELECTROSPUN SYNTHETIC SCAFFOLD

Optimizing the wound-healing microenvironment

PHOENIX is an electrospun synthetic matrix composed of PGA + PLCL and designed to mimic the architecture of native extracellular matrix. As the polymers resorb, they release a sustained contribution of acidic bioactive products while providing a scaffold for granulation tissue.



CLINICAL EVIDENCE OF pH MODULATION

10-subject prospective pilot study | diabetic foot ulcers | measurements at baseline, 2 weeks, and 4 weeks. Tabchi et al.

pH

SIGNIFICANT DECREASE



Wound-bed pH decreased significantly
between 2-week visits. $p < 0.001$.

WOUND SIZE

SIGNIFICANT BY WEEK 4



All wounds decreased in size, with a
significant reduction by Week 4. $p < 0.05$.

MICROBIOME

PATIENT + WOUND FACTORS MATTER

Microbial composition varied strongly by
patient, wound location, and wound size;
basic baseline pH was associated with
greater bacterial diversity.

EVIDENCE SNAPSHOT ACROSS WOUND TYPES

MULTICENTER | 38 PATIENTS | 50 WOUNDS

Difficult-To-Heal Wounds

- 67.6% mean PAR at 4 weeks • 80% at 8 weeks
- 66% healed by 12 weeks • Mean time to heal 49 days
- 62% of wounds received ≤ 2 applications

2 PATIENTS | 7 WOUNDS

Limb Salvage

- 7 of 7 wounds achieved closure • Amputation avoided
- Average time to closure after PHOENIX introduction
~5.6 weeks

4 PATIENTS | 5 WOUNDS

Diabetic Foot Ulcers

- 76% average wound-area reduction at 3 weeks
- All wounds healed • Average healing time 7.4 weeks
- Average 5 applications

KAVROS | MELIN

Chronic Lower-Extremity Wounds

- 5-month DFU: 32% reduction in 3 week
- 4-year VLU: 37% reduction in 3 weeks
- Poster authors reported accelerated healing
in complex stalled wounds



Posters available for reference at www.atreonortho.com

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