

# Clinical Case Report



**Necrotic DFU**

**&**

**bio-ConneKt<sup>®</sup>**

**Wound Matrix**



## *Necrotic DFU*

### *A Case Report*

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## **ABSTRACT**

A 67 year-old male presented with ulceration of the plantar 1<sup>st</sup> metatarsal head. Biomechanically he presented with gastroc-soleal equinus and a rigid first ray secondary to the contraction of the peroneal longus. Surgery was performed to lengthen the gastroc complex and a tenotomy was performed to the peroneal longus. In the post-operative process, the surgical wound healed with no complication. However, the patient applied a tight dressing bandage to the foot resulting in a necrotic ulceration to the lateral 5<sup>th</sup> metatarsal head.

In order to facilitate wound closure, the **bio-ConneKt® Wound Matrix**, a FDA-cleared ECM-based advanced wound care dressing, was used as a treatment option. The **bio-ConneKt® Wound Matrix** is engineered to help close chronic wounds in combination with standards of care by meeting the challenges presented in a diabetic wound microenvironment. After aggressive sharp debridement, the product was secured to the wound that measured 2.7 x 2 x 0.3 cm. In 6 weeks complete wound closure with full epithelialization was achieved. A combination of diabetic and pressure wound poses a even more demanding physiological environment for healing to occur. The mechanical and biochemical attributes of the **bio-ConneKt® Wound Matrix** enabled optimal maintenance of the wound bed in a healing mode.

## **HISTORY**

**Past Medical History:** Patient medical history was positive for Insulin Dependent Diabetes Mellitus, CAD, PVD, HTN. He smoked 3 cigarettes per day and demonstrated complete loss of protective sensation to the bilateral lower extremities to the level of the distal 1/3 of the tibia.

**PE includes:** General physical exam was negative. Vascular exam demonstrated palpable pedal pulses and immediate capillary refill time. Initially, the left foot had a plantar ulceration to the 1<sup>st</sup> Metatarsal head. During the post-operative period for the initial wound, he developed a lateral 5<sup>th</sup> metatarsal head ulceration with necrotic tissue. Wound measured 2.7cm x 2cm x 0.3cm.



**Initial Wound Presentation**

## TREATMENT

**Surgical procedure:** Excisional wound debridement was performed followed by application of bio-ConneKt® Wound Matrix to the wound bed. Steri-Strips secured the graft intact and a Unna Boot was applied. Post-op dressing was applied and patient was allowed to weight bear in a CAM boot. Following a post-op observation on day #3, weekly dressing changes were performed and the Steri-Strips and graft were left intact.

At weekly dressing changes, antimicrobial silver was applied over the Steri-Strips to minimize infection, and Unna boot was continued for edema control.

**6 weeks:** With minimal standard of care follow-up, the wound healed completely with healthy epithelialization.

Day 0 – Procedure Day



6 weeks – Full closure



## Dr. Bednarz's concluding remarks:

*" A complicated wound resulting from both metabolic (diabetes) and physical (pressure) etiologies require specialized care to effect closure. The **bio-ConneKt® Wound Matrix** enabled me to achieve the result with just **ONE** application with minimal post procedural care. "*

# bio-ConneKt® Wound Matrix

## 5 Differentiating Features

The bio-ConneKt® Wound Matrix is a next generation, all biologic, FDA 510(k) cleared wound dressing. It is comprised of reconstituted Type I collagen that is stabilized, sterilized to SAL  $10^{-6}$ , and stored at room temperature.



**Hydrophilic scaffold to facilitate rapid fluid absorption (0.5cc per sq. cm. of surface area)**



**Stabilized collagen to prevent premature digestion in wound bed**



**Porous matrix to enable optimal host cell infiltration**



**Easily conformable to ensure maximum contact with wound bed**



**Material designed to minimize repeat applications**

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Steri-Strip is a registered trademark of 3M, Inc.

**Caution:** Federal law restricts sale of this device by or on the order of a physician

For additional information and/or product support, email [customerservice@mlmbiologics.com](mailto:customerservice@mlmbiologics.com). or call 844-4-MLM-BIO

More for Less for Many

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