# The use of a collagen dermal template with an ECM in various wounds in Acute Care and Outpatient wound care settings.

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## Abstract

Chronic wounds are known to have a disrupted or damaged extracellular matrix (ECM). Case studies in an outpatient wound care clinic utilized a 90% natural, non-reconstituted collagen dermal template with an ECM, Endoform dermal template. Wound care treatments which included a collagen-based dressing application have proven to be beneficial. In several case studies with wounds of mixed etiology, the Endoform dermal template was directly applied to the wound bed to assess the effects of the product on differing acute and chronic wounds in an inpatient hospital setting.

## Method:

**A weekly wound visit was completed to assess for the following:**

1. Decreased wound dimensions
2. Patient comfort
3. Product incorporation into wound bed
4. Ease of application

## Conclusion:

The use of a 90% natural, non-reconstituted collagen dermal template with an ECM, Endoform dermal template, in various types of wounds yielded positive outcomes. The ability to use a collagen-based advanced wound product to assist in healing chronic wounds, from day one[3] provided:

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**References**

1. Lepow, B.D., Downey, M.,Yurgelon, J., Klassen, L., Armstrong, D. (2011). Bioengineered tissue in wound healing. Journal of Dermatology, 6(3): 255-262.
2. G.S. Schultz & Wysocki A. (2009). Interactions between extra cellular matrix and growth factors in wound healing, Journal of Wound Repair and Regeneration, 17(2): 153-62.
3. HCPCS Codes A6021, A6022 collagen dressing.
4. Endoform dermal template Instructions for Use.

## Case Study 1

Patient admitted with a diagnosis of abscess of the right post-thigh secondary to wound culture positive test of Methicillin-resistant Staphlococcus aureus (MRSA).

**Past medical history includes:** Abscess, hypothyroid, mannosidosis, mental retardation, and osteoarthritis.

**Day 1:** Initial wound treatment upon admission: Wound cleansed with normal saline solution, sharp debridement of nonviable tissue, wound packed with silver hydrogel sheet, covered with a foam dressing, and secured with tape.

**Dimensions at onset:** 1.0 cm x 2.0 cm x 0.8 cm

**Week 1**


**Wound dimension:** 1.0 cm x 2.0 cm x 0.8 cm
**Wound treatment:** Wound cleansed with normal saline solution, Endoform dermal template applied, secondary dressing of NPWT with parameters set to 125mmHg continual pressure with follow up in four to five days.

**Week 2**


**Wound dimension:** 1.0 cm x 1.4 cm x 0.1 cm
**Wound treatment:** Wound cleansed with normal saline solution, Endoform dermal template applied, secondary dressing of NPWT with parameters set to 125mmHg continual pressure with follow up in four to five days.

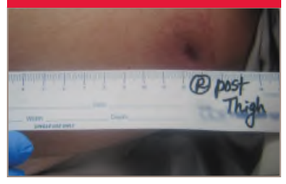
**Week 3**


**Wound dimension:** 1.0 cm x 1.2 cm x 0.1 cm
**Wound treatment:** Wound cleansed with normal saline solution, Endoform dermal template applied, secondary dressing of NPWT with parameters set to 125mmHg continual pressure with follow up in four to five days.

**Week 4**


**Wound dimension:** 0.8 cm x 1.3 cm x 0.1 cm
**Wound treatment:** Patient was discharged on day 22 and instructed to use a silver foam dressing. A follow-up in outpatient clinic was requested.

**Week 10**




**Wound treatment:** Healed
**Treatment plan:** Outpatient clinic visit one month later with posterior thigh wound closed.



## Case Study 2

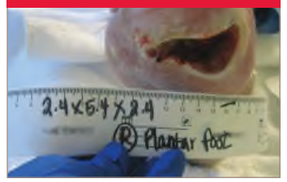
Patient presented to the emergency room with an open wound to the right foot. The patient was assessed and diagnosed with a wound infection to the right plantar foot.

**Past medical history:** Diabetes mellitus

**Previous treatments:** Wound cleansed with normal saline solution, applied moistened gauze into the wound bed, covered with dry gauze and secured with tape. Dressing changed twice daily.

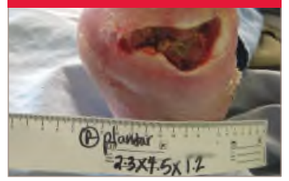
Patient discharged to follow up with primary care provider.

**Week 1**




**Wound dimension:**
2.4 cm x 5.4 cm x 2.4 cm
**Wound treatment:** Wound cleansed with normal saline solution, sharp debridement performed to devitalized tissue, re-application of the Endoform dermal template to wound bed with foam secondary dressing and tape to secure.

**Week 2**




**Wound dimension:**
2.3 cm x 4.5 cm x 1.2 cm
**Wound treatment:** Wound cleansed with normal saline solution, sharp debridement performed to devitalized tissue, re-application of the Endoform dermal template to wound bed with foam secondary dressing and tape to secure.

**Week 3**

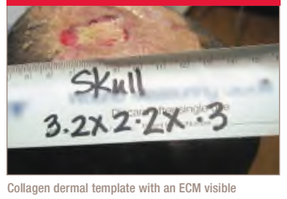

**Wound dimension:**
1.9 cm x 4.0 cm x 1.0 cm
**Wound treatment:** Wound cleansed with normal saline solution, sharp debridement performed to devitalized tissue, re-application of the Endoform dermal template to wound bed covered with foam secondary dressing and tape to secure.

## Case Study 3

Patient presented to the emergency room with an open wound of three weeks. The patient stated that the drainage was increasing and had a foul smell. Upon assessment of the lesion, the patient was diagnosed with osteomylitis of the scalp secondary to wound abscess.

**Past medical history includes:** Diabetes mellitus, headaches, laminar necrosis, osteomylitis, and hypertension
**Previous wound care treatment:** Wound cleansed with normal saline solution, hydrogel sheet with foam dressing applied. Dressing changed daily.

**Week 1**




Collagen dermal template with an ECM visible

**Wound treatment:** Cleansed with normal saline solution, application of Endoform dermal template. NPWT foam dressing set to 125mmHg continuous pressure applied until the patient returned to the clinic in four days.

**Week 2**


Collagen dermal template with an ECM visible

**Wound treatment:** The wound was assessed and found to be beefy red and granulated with progress noted from onset. Cleansed with normal saline solution, application of Endoform dermal template. NPWT foam dressing set to 125mmHg continuous pressure applied until the patient returned to the clinic in four days.