

Shown to significantly increase wound closure rates:

Comparative effectiveness of 3M™ Promogran Prisma™ Collagen Matrix with ORC and Silver vs. Endoform™ Dermal Template[†]

Promogran Prisma Matrix labeled for use

with 3M™ActiV.A.C.™ Therapy

3M[™] Promogran Prisma[™] Collagen Matrix with ORC and Silver

Promogran Prisma Matrix is the only collagen dressing to contain oxidized regenerated cellulose (ORC) and silver and provides an effective antimicrobial barrier against common wound pathogens *In vitro* due to the antimicrobial properties of silver.³

While collagen alone is particularly effective against matrix metalloproteinases (MMPs), it has a limited effect on elastase activity. *In vitro* studies have demonstrated the combination of oxidized regenerated cellulose (ORC) and collagen materials had a greater effect in reducing both MMP and elastase activity than collagen alone.⁴ This is important because both MMP and elastate activity are highly predictive of non-healing wounds as shown below.⁵

Why is elastase important?

While MMPs are the most commonly discussed proteases related to wound healing, elastase is one of the most abundant proteases present in chronic wounds, the first of the proteases to arrive post-injury, and is responsible for damage to:⁶⁻⁸

- Fibronectin-Vital for cell adhesion and migration; must be present to signal growth factors to appear
- Elastin-Gives tissue elasticity







3M™ Promogran Prisma™ Collagen Matrix with ORC and Silver

55% Collagen

44% ORC

1% Silver-ORC



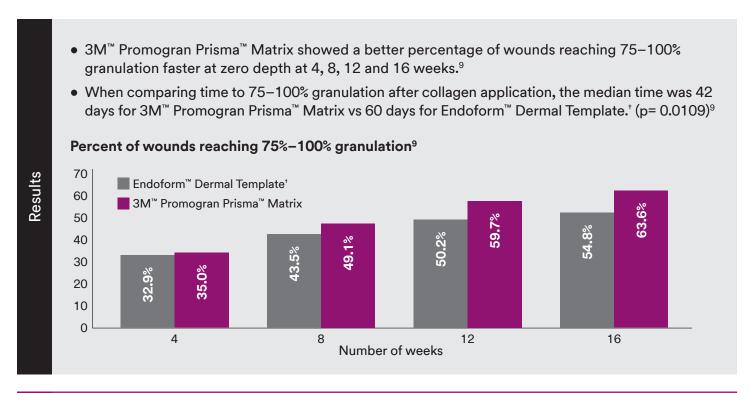
How the dressings work.

In the presence of exudate,
Promogran Prisma Matrix and
3M™ Promogran™ Collagen
Matrix with ORC transform
into a soft, conformable,
biodegradable gel, allowing
contact with all areas of the
wound. The dressings help
create a moist wound bed and
an environment that supports
wound healing. During dressing
changes, it is not necessary to
remove any residual dressing.

A comparative effectiveness study of 3M™ Promogran Prisma™ Collagen Matrix with ORC and Silver to Endoform™ Dermal Template[†]

A comparative effectiveness (CE) study was conducted evaluating the value proposition of Promogran Prisma Matrix versus Endoform™ Dermal Template¹ in matched cohorts of patients undergoing treatment for diabetic foot ulcers (DFUs).9

3230 DFU patients were identified in the US Wound Registry (USWR) as having complete data records and using either Promogran Prisma Matrix or Endoform™ Dermal Template.¹ Propensity score matching across 37 variables was performed to construct a case-matched cohort with 844 total patients (422 in each product group).9



Results

The 3M[™] Promogran Prisma[™] Matrix group had a significantly higher percentage of patients with wounds healed or improving.

82%

VS

74.6%

3M[™] Promogran Prisma[™] Matrix (p=0.0096)⁹ Endoform[™] Dermal Template[†] Endoform[™] Dermal Template[†] had a higher percentage of patients with wounds worsening during treatment.

23.9% vs 15.2%

Endoform[™] Dermal Template[†] 3M™ Promogran Prisma™ Matrix

 $(p=0.0013)^9$

Wound demographics ¹		3M™ Promogran Prisma™ Matrix	Endoform™ Dermal Template¹	p-value
Initial area (sq cm)	mean (sd)	6.5 (15.4)	6.8 (14.9)	0.7651
	median (min, max)	1.5 (0, 148)	1.5 (0, 136.7)	0.8796
Wound age at first encounter (days)	mean (sd)	145.2 (342.6)	115.1 (52.4)	0.6791
	median (min, max)	34.5 (0, 3831)	36.5 (0, 3223)	0.577
Lag time to first collagen application (days)	mean (sd)	47.5 (87.9)	45.5 (80.9)	0.7230
	median (min, max)	14 (0, 901)	14 (0, 653)	0.8347

Treatments ¹	3M™ Promogran Prisma™ Matrix	Endoform [™] Dermal Template [†]	p-value
Offloaded for a pressure ulcer	82 (19.4%)	76 (18.0%)	0.5965
Offloaded for a DFU	415 (98.3%)	414 (98.1%)	0.7945
Wound had NPWT treatment	58 (13.7%)	60 (14.2%)	0.8426
Wound had HBOT	92 (21.8%)	86 (20.4%)	0.6127

The wounds studied were small, chronic DFUs. Patients received offloading; approximately 20% received hyperbaric oxygen therapy (HBOT) sometime during treatment, and 14% received negative pressure wound therapy (NPWT).9

Unlike any other collagen dressing.

3M™ Promogran™ Matrix Family of collagen dressings are uniquely formulated with Oxidized Regenerated Cellulose (ORC) and demonstrated effective through multiple clinical studies including Randomized Controlled Trials (RCTs) that were systematically reviewed in meta-analysis.^{8,9}

These studies have shown the use of Promogran Matrix Family of collagen dressings:

- Are cost effective and have the potential to lower the total cost of treatment¹⁰
- Can significantly increase the number of wounds closed 1,2
- When used early in wound management, may lead to improved success rates 11-14
- The use of 3M[™] Promogran Prisma[™] Collagen Matrix with ORC and Silver, has been shown to lower the rate of withdrawals due to wound infections in a RCT.¹⁵ The dressing is known to provide an effective antibacterial barrier against common wound pathogens in vitro due to the antibacterial properties of silver.³

To learn more about the benefits of 3M™ Promogran Prisma™ Matrix contact your local 3M representative.

References

- Chowdhry S.A, et al. Use of oxidised regenerated cellulose/collagen dressings versus standard of care over multiple wound types: a systematic review and meta-analysis. Int Wound J. 2021.
- Chen Y, Du P, Lv G. A meta-analysis examined the effect of oxidised regenerated cellulose/collagen dressing on the management of chronic skin wounds. *Int Wound J.* 2023; 20(5):1544-1551. doi:10.1111/iwj.14009CHENET AL.1551
- Bourdillon KA, Delury C, Cullen B. Biofilms and delayed healing an in vitro evaluation
 of silver and iodine containing dressings and their effect on bacterial and human cells.
 International Wound Journal. 2017. ISSN 1742-4801.
- Cullen B, Watt P, Lundqvist C, et al. The role of oxidized regenerated cellulose/collagen in chronic wound repair and its potential mechanism of action. Int J Biochem Cell Biol. 2002: 34(12):1544–1556.
- Serena T, Cullen T, Bayliff S, et al. Defining a new diagnostic assessment parameter for wound care: Elevated protease activity, an indicator of non-healing for targeted treatment. Wound Repair Regen. 2016; 24(3):589-595.
- Gibson D, Cullen B, Legerstee R, Harding KG, Schultz G. MMPs made easy. Wounds International. 2009; 1(1)1-6.
- Weitz JI, Landmann SL, Crowley KA, Birken S, Morgan FJ. Development of an assay for in vivo human neutrophil elastase activity. Increased elastase activity in patients with alpha 1-proteinase inhibitor deficiency. J Clin Invest. 1986; 78:155-162. doi:10.1172/ JCI112545. Cited by: Ferreira AV, Perelshtein I, Perkas N, Gedanken A, Cunha J, Cavaco-Paulo A. Detection of human neutrophil elastase (HNE) on wound dressings as marker of inflammation. Appl Microbiol Biotechnol. 2017; 101:1443-1454.

- Hasmann A, Gewessler U, Hulla E, et al. Sensor materials for the detection of human neutrophil elastase and cathepsin G activity in wound fluid. Exp Dermatol. 2011; 20(6):508-513. doi: 10.1111/j.1600-0625.2011.01256.x. Cited by: Ferreira AV, Perelshtein I, Perkas N, Gedanken A, Cunha J, Cavaco-Paulo A. Detection of human neutrophil elastase (HNE) on wound dressings as marker of inflammation. Appl Microbiol Biotechnol. 2017; 101:1443-1454.
- Griffin L, Carter M, D'Agostino R, D'Agostino L. Comparative Effectiveness of Two Collagen-containing Dressings: Oxidized Regenerated Cellulose (ORC) / Collagen / Silver-ORC Dressing Versus Ovine Collagen Extracellular Matrix. Wounds 2019; 31(11):E73-E76.
- Snyder, R. et al. A Retrospective Study of Sequential Therapy with Advanced Wound Care Products versus Saline Gauze Dressings: Comparing Healing and Cost. Ostomy Wound Management. 2010; 56(11A):9–15.
- Cullen B, et al. Early adoption of collagen/ORC therapies improves clinical outcome. Paper presented at: Wounds UK Harrogate, 2011.
- Gottrup F, Cullen B, Karlsmark T, Bischoff-Mikkelsen M, Nisbet L, Gibson M. Randomized controlled trial on collagen/oxidized regenerated cellulose/silver treatment. Wound Repair & Regeneration. 2013; 21:1-10.
- Veves A, Sheehan P, Pham HT. A randomised controlled trial of Promogran (a collagen/ oxidized regenerated cellulose dressing) vs standard treatment in the management of diabetic foot ulcers. Arch Surg. 2002; 137(7):822-827.
- Vin, F., Teot, L. and Meaume, S. (2002) The healing properties of Promogran in venous leg ulcers. J Wound Care, 11, 335-341.
- Gibson D, Cullen B, Legerstee R, Harding KG, Schultz G. MMPs made easy. Wounds International. 2009; 1(1)1-6.



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1-800-228-3957 Web 3M.com/medical Follow local institutional protocols for infection control and waste disposal procedures. Local protocols should be based on the applicable federal, state and/or local government environmental regulations.

Note: Specific indications, contraindications, warnings, precautions and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application. Rx only. †Endoform™ Dermal Template is a trademark of Aroa.

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