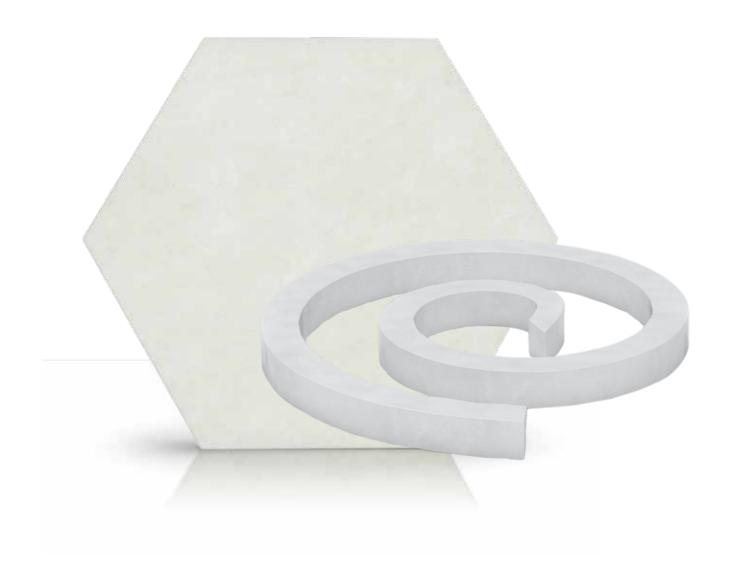


The Shape of Intelligent Wound Healing

PROMOGRAN™ Matrix Wound Dressing and PROMOGRAN PRISMA™ Matrix







Collagen: How it impacts the wound healing process

Collagen is essential for new tissue generation. This family of structural proteins attracts cells to the wound area and forms the underlying layer for cell adhesion that induces cell growth and helps build new proteins.

In a wound dressing, the benefits of collagen may be further enhanced with the addition of the right balance of components, namely, oxidized regenerated cellulose (ORC) and often, silver for its antimicrobial properties.

During the wound healing process, there are four main phases: hemostasis, inflammation, proliferation, and maturation/remodeling.¹

Hemostasis Phase

This initial phase occurs rapidly after injury. Blood vessels constrict and platelets stick together to seal the break in the blood vessel wall. Coagulation occurs to reinforce the platelet plug with fibrin, serving as a molecular binding agent.¹

Inflammatory Phase

After the injury, white blood cells, growth factors, nutrients and enzymes create swelling, heat, pain and redness.¹

Stalling Risk

Research has shown that wounds can become stalled in the inflammatory phase, leading to delayed wound healing.²

Phase
WOUND
HEALING
PROCESS
4-phases

Hemostasis

Maturation/ Remodeling Phase Proliferative Phase

Inflammatory Phase

Proliferative Phase

This is the stage when collagen is remodeled and the wound fully closes. Cross-linking of collagen reduces scar thickness and also makes the skin area of the wound stronger.¹

Maturation/Remodeling Phase

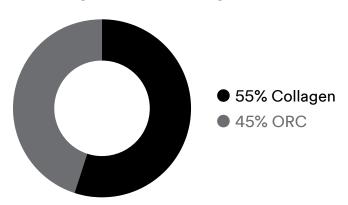
In this stage, new tissues are built and blood vessels are constructed. Epithelial cells resurface the injury, which happens faster when wounds are kept moist and hydrated.¹

PROMOGRAN™ Matrix AND PROMOGRAN PRISMA™ Matrix: Two Dressings-Multiple Uses

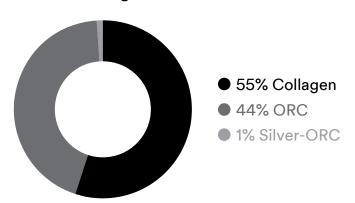
The Right Balance of Materials— Designed to make a powerful difference



PROMOGRAN™ Matrix Wound Dressing = ORC + Collagen



PROMOGRAN PRISMA™ Matrix= ORC + Collagen + Silver



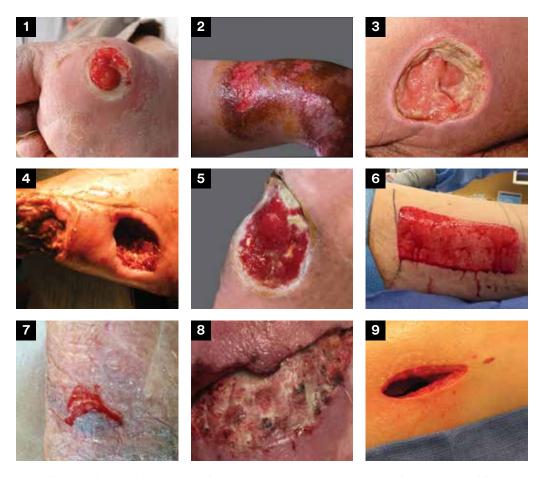
How the dressings work

In the presence of exudate, PROMOGRAN™ Matrix and PROMOGRAN PRISMA™ Matrix transform into a soft, conformable, biodegradable gel, and thus allowing contact with all areas of the wound. The dressings maintain a physiologically moist microenvironment at the wound surface. This environment is conducive to granulation tissue formation, epithelialization and optimal wound healing.



Indications for use

The PROMOGRAN™ Matrix and PROMOGRAN PRISMA™ Matrix are intended for the management of exudating wounds including:



Diabetic ulcers 2. Venous ulcers 3. Pressure injuries 4. Ulcers caused by mixed vascular etiologies (including deep, tunneling and undermining)
 Full-thickness and partial-thickness wounds 6. Donor sites and other bleeding surface wounds 7. Skin tears and abrasions 8. Traumatic wounds healing by secondary intention 9. Dehisced surgical wounds

PROMOGRAN PRISMA™ Matrix (Rope)

Provides a convenient solution for the management of ulcerative wounds that are deep, tunneling and undermining.

For optimal effect apply PROMOGRAN PRISMA $^{\text{m}}$ Matrix (Rope) directly to the entire wound bed. (See PROMOGRAN PRISMA $^{\text{m}}$ Matrix Instructions for Use for details).

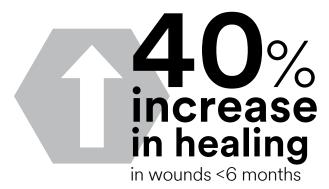


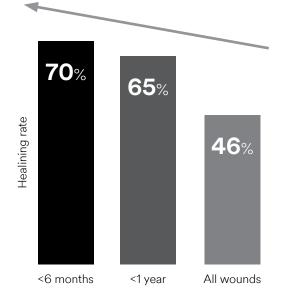
PROMOGRAN PRISMA™ Matrix

Venous Leg Ulcers (VLUs)

A prospective randomized multi-center study involving VLU patients (n = 64) showed²:

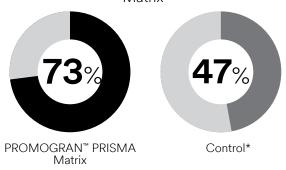
- VLUs of < 6 months duration showed improved healing or were healed in 12 weeks
- Early Usage of PROMOGRAN PRISMA™ Matrix in wound management may lead to improved success rates





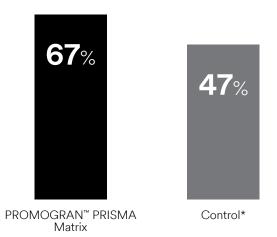
A 12-week RCT involving VLU patients (n = 30) showed³:

Wounds Healed at 12 Weeks (P = 0.04)
Significantly higher percentage of wounds
healed (73%) with PROMOGRAN PRISMA™
Matrix



Patient Improvement at 4 Weeks

Improvement defined as >50% reduction in wound area



^{*}TIELLE™ Foam Dressing + short stretch multi-layer compression

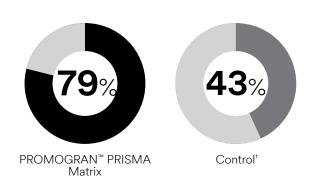
PROMOGRAN™ Matrix

Diabetic Foot Ulcers (DFUs)

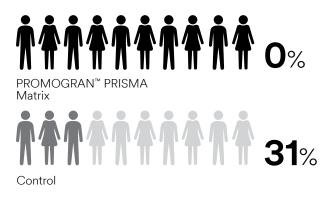
A 14-week RCT involving DFU patients (n = 40) showed⁴:

Response Rate in DFUs

>50% reduction in wound size by week 4 (P = 0.035)



Withdrawal Rate Due to Infection (P = 0.012)



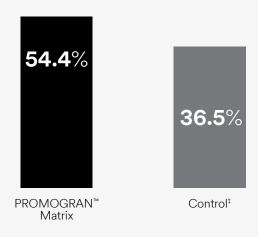
 Wounds completely healed was 52% in the PROMOGRAN PRISMA™ Matrix Group vs 31% in the Control Group at Week 14

Venous Leg Ulcers (VLUs)

A 12-week multi-center RCT involving VLU patients (n = 73) showed⁵:

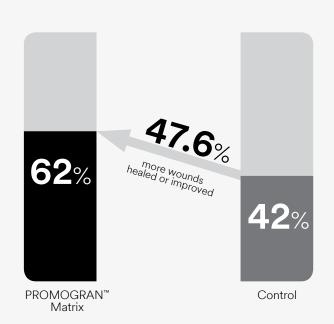
Reduction in Wound Area

(P = 0.0001)



% of Wounds Healed or Improved

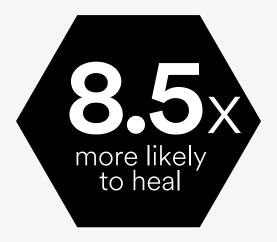
(P = 0.0797)



Diabetic Foot Ulcers (DFUs)

A 6-week RCT involving DFU patients (n = 40) showed⁶:

 Significantly more wounds achieved complete healing in the PROMOGRAN™ Matrix Group vs Control Group (63% vs 15%, P < 0.03, or 8.5)

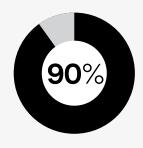


Based on the conditions and outcomes of this study the PROMOGRAN™ Matrix group was statistically 8.5 times more likely to heal §,7

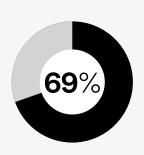
 The time to complete healing was significantly shorter in the PROMOGRAN™ Matrix Group vs Control Group (23.3 vs 40 days, P < 0.01)

Pressure Injuries (PIs)

A 6-week RCT involving PI patients (n = 40) showed⁷:



90% of pressure injury wounds completely healed in the PROMOGRAN™ MATRIX GROUP (n = 40) compared to only 70% in the Control Group¶ (n = 40)



69% shorter mean time to complete healing in the PROMOGRAN™ MATRIX GROUP than the Control Group (360 days overall hospitalization vs 1,164 days)

Number of Hospitalization Days



PROMOGRAN™ Matrix



Control

= 100 days

¶Moist wound healing—vaseline gauze and hydropolymer patch

Ordering

PROMOGRAN™ Matrix Wound Dressing				
Item code	Eaches/Carton/Box	Size	HCPCS code	
PG004	10 ea/ct - 4 ct/bx	4.34 sq. in. Hexagon	A6021	
PG019	10 ea/ct - 4 ct/bx	19.1 sq. in. Hexagon	A6022	

PROMOGRAN PRISMA™ MATRIX				
Item code	Eaches/Carton/Box	Size	HCPCS code	
MA028	10 ea/ct - 4 ct/bx	4.34 sq. in. Hexagon	A6021	
MA123	10 ea/ct - 4 ct/bx	19.1 sq. in. Hexagon	A6022	
MA032	6 ea/ct - 4 ct/bx	3/8" x 3/8" x 12 5/8" in. Rope	A6024	



To learn more about how PROMOGRAN™ Matrix and PROMOGRAN PRISMA™ Matrix can help treat your patients, call 800-275-4524 or visit myKCl.com

References:

- The Four Stages of Wound Healing. Wound Source website. https://www.woundsource.com/blog/four-stages-wound-healing Published April 28, 2016. Accessed September 27, 2018.
- 2. Cullen B, Gibson M, Nisbet L. Early adoption of collagen/ORC therapies improves clinical outcomes. Poster presented at Wounds UK; November 1, 2011; Harrogate, UK.
- 3. Lanzara S, Zamboni P. A pilot randomized trial to determine the effects of a new active dressing on wound healing of venous leg ulcers. Poster presented at European Wound Management Association (EWMA); May 14-16, 2008; Lisbon, PT.
- 4. 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 Regen. 2013;21(2):216-225.
- 5. Vin F, Teot L, Meaume S. The healing properties of Promogran in venous leg ulcers. J Wound Care. 2002;11(9):335-341.
- 6. Lazaro-Martinez JL, Garcia-Morales E, Beneit-Montesinos JV, Martinez-de-Jesus F, Aragon-Sanchez FJ. Randomized comparative trial of a collagen/oxidized regenerated cellulose dressing in the treatment of neuropathic diabetic foot ulcers. Cir Esp. 2007;82(1):27-31.
- 7. Nisi G, Brandi C, Grimaldi L, Calabro M, D'Aniello C. Use of a protease-modulating matrix in the treatment of pressure sores. Chir Ital. 2005;57(4):465-8.

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.

