

**PROMOGRAN™**  
MATRIX FAMILY



**PROMOGRAN™ Matrix Wound Dressing**  
**and PROMOGRAN PRISMA™ Matrix**  
THE **ONLY** DRESSINGS WITH COLLAGEN AND ORC

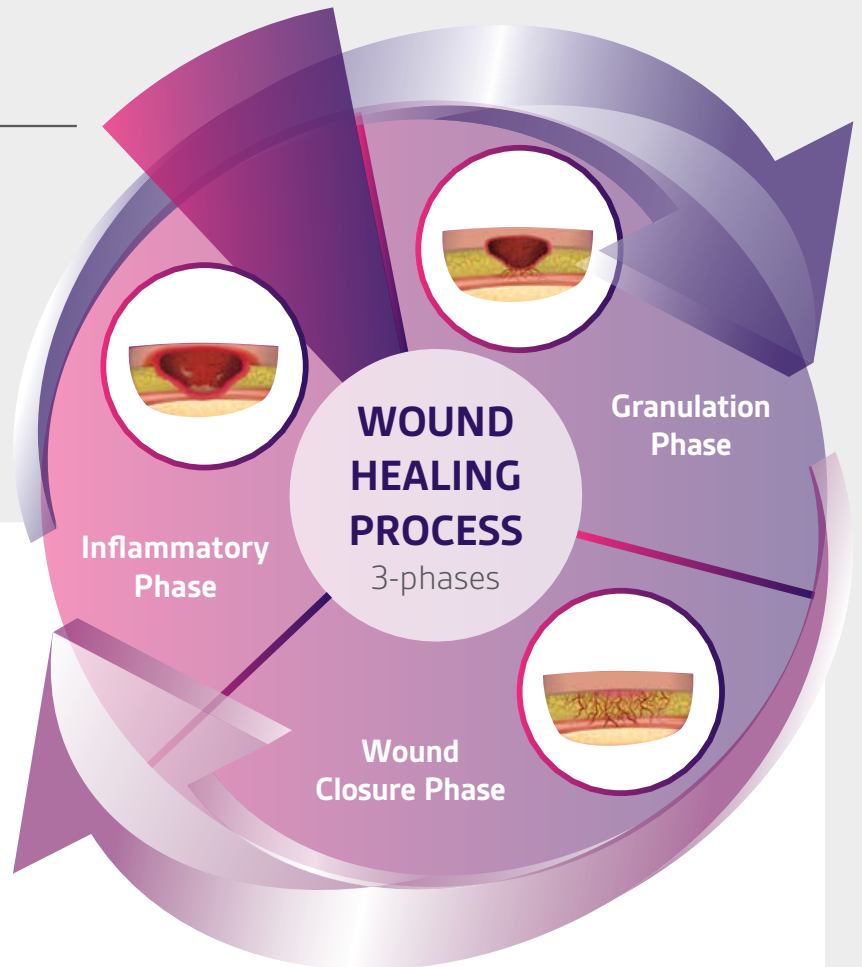
# COLLAGEN IS EFFECTIVE ON PROTEASES

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.

During the wound healing process, there are three main phases: inflammatory, granulation, and wound closure.

## STALLING RISK

Research has shown that wounds can become stalled in the inflammatory phase, leading to delayed wound healing.<sup>1</sup>



## THE SMALL, BUT MIGHTY, PROTEASE

**Yes, there can be too much of a good thing.**

Proteases, such as MMPs and elastase, play an important role in regulating the balance between tissue synthesis and tissue destruction.<sup>2</sup> But when proteases are in excess, they can have a negative impact on healing in stalled wounds.<sup>1</sup>

### Don't bet on these odds

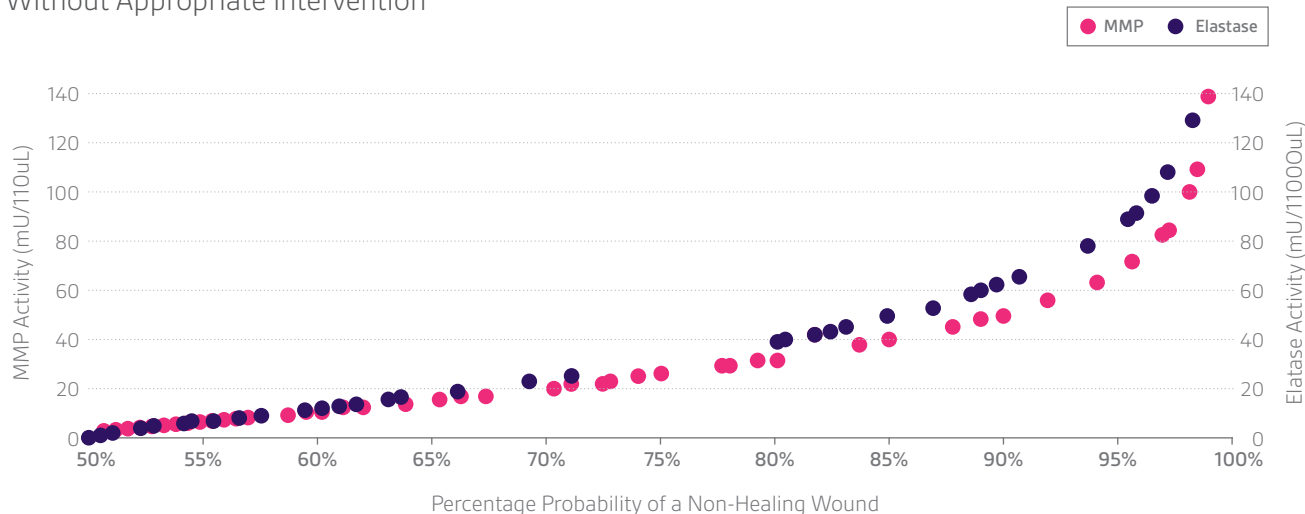
Without addressing this hostile environment, these wounds continue to stall. The more active the proteases, the lower the probability the wound will break its cycle.

**To address the hostile wound environment, three factors should be considered:<sup>2</sup>**

- Lower protease activity
- Reduce bioburden
- Maintain a moist wound environment

## Protease Activity

As Protease Activity Increases Probability of Healing Decreases Without Appropriate Intervention<sup>3</sup>

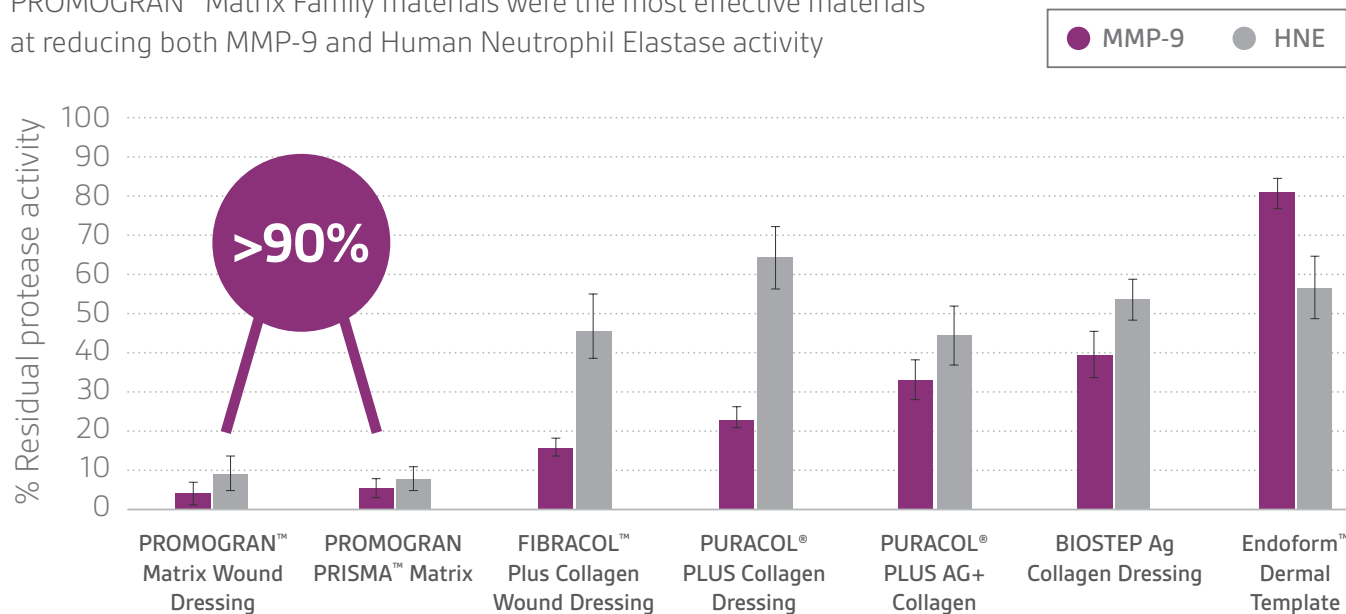


## ADDRESS THE EFFECTS OF ELASTASE WITH ORC

While collagen is particularly effective against MMP proteases, it has a limited effect on elastase activity. *In vitro* studies have shown that the combination of collagen and ORC (Oxidized Regenerated Cellulose) has a greater effect in reducing both MMP and elastase activity than collagen alone.<sup>4,5</sup> ORC has been found to reduce elastase activity, as well as the activities of other proteases.<sup>6</sup> Furthermore, as ORC degrades, it lowers the pH which has been shown *in vitro* to help control bacterial growth.<sup>7</sup>

### *In Vitro* Study Examining the Benefits of Collagen/ORC Materials Assessing the Ability to Reduce Elastase Activity<sup>3</sup>

PROMOGRAN™ Matrix Family materials were the most effective materials at reducing both MMP-9 and Human Neutrophil Elastase activity



To learn more contact your ACELITY representative at  
**800-275-4524** or visit **acelity.com**

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6. Cullen B, et al. Modulation of the chronic wound environment; an in vitro evaluation of advanced wound therapies. Poster presented at: Symposium of Advanced Wound Care (SAWC); April 28-May 1, 2007; Tampa, FL.
7. Dineen P. Antibacterial activity of oxidized regenerated cellulose. *Surg Gynecol Obstet* 1976;142(4):481-6.

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