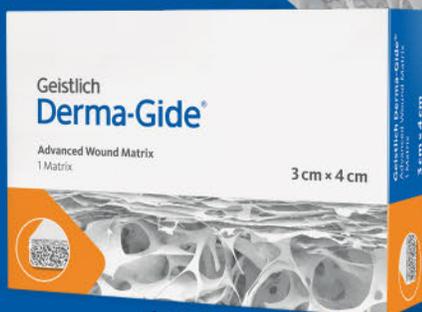
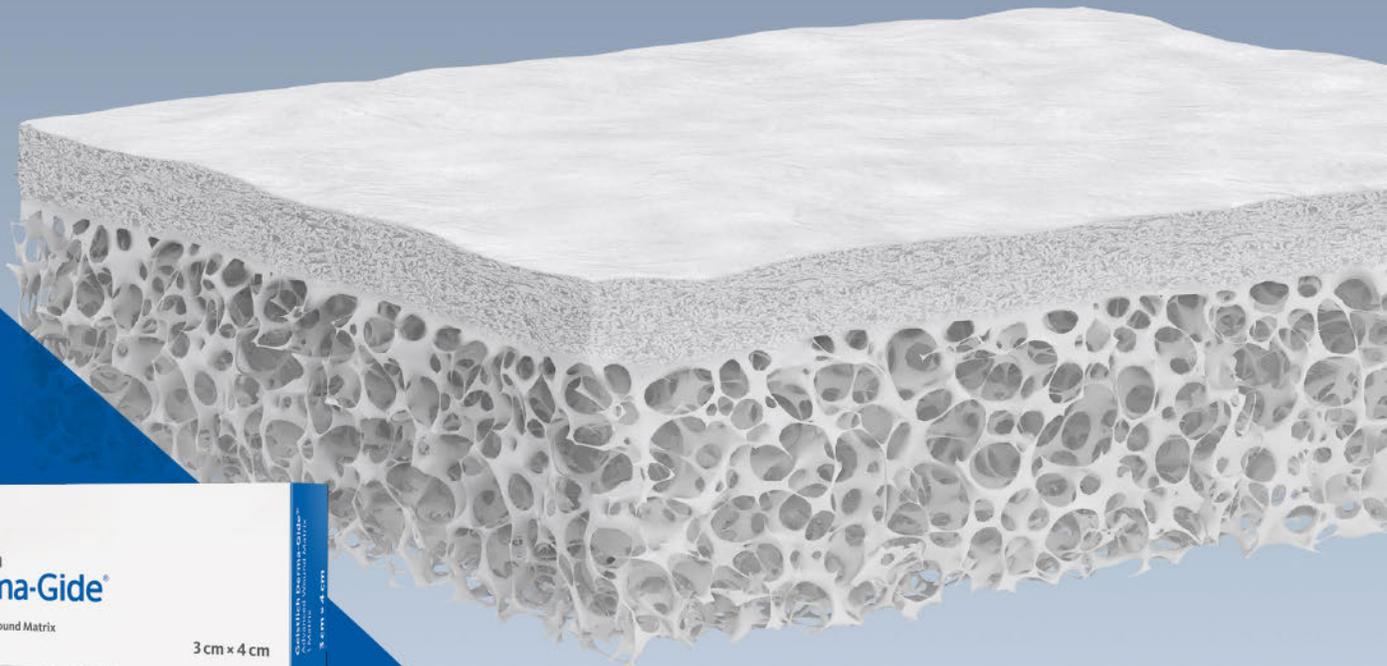


# Executive Summary

## Geistlich Derma-Gide® Advanced Wound Matrix

- CLINICALLY PROVEN
- COST EFFECTIVE
- PATIENT & PHYSICIAN CONVENIENCE



# Executive Summary

Table of Contents /  Easy Click-Through Navigation

**PAGE 3**  
About Geistlich  
Pharma

**PAGE 4**  
Why Geistlich  
Derma-Gide®?

**PAGE 5**  
What is Geistlich  
Derma-Gide®?

**PAGE 6-7**  
Evidence  
Supporting  
Geistlich  
Derma-Gide®

**PAGE 8**  
Enhanced  
Patient &  
Provider  
Experience

**PAGE 9**  
Customer  
Care

**PAGE 9**  
Reimbursement  
Support

The fingerprint represents the uniqueness of Geistlich Pharma and the Geistlich family. We constantly strive to support our customers and patients and our relentless pursuit of being: EXACTLY like no other.

**Dr. Andreas Geistlich**  
*President of the Board of Directors*  
5th Generation Family Member since the Company was founded.

**EXACTLY**  
 like no other.

# About Geistlich Pharma

## Committed to regenerative medicine

Over the past 170 years, our passion and extensive research & development in the field of regenerative medicine has led us to develop a clinically proven, cost-effective advanced matrix with superior handling characteristics “Exactly Like No Other”.

Geistlich Pharma specializes in the regeneration of bone, cartilage and tissue. Geistlich's regenerative medical devices aim to improve patients' quality of life.

More than 700 employees worldwide work for Geistlich in the area of regenerative medicine. With its twelve affiliates and 60 distribution partners, Geistlich's medical devices and medicinal products reach around 90 markets worldwide.

## Three business units built upon one Swiss foundation

Geistlich Pharma is comprised of three business units:

**Geistlich Biomaterials:** Dentistry, oral and maxillofacial surgery

**Geistlich Surgery:** Orthopedics including trauma, spine and sports medicine

**Geistlich Medical:** Infection control and advanced wound care



The Swiss company, which has its headquarters in Central Switzerland, strives for Swiss Quality. All research and development as well as production take place at its headquarters. A new building expansion, which opened in 2019, reinforces the philosophic approach of “everything under one roof” is further affirmation that Geistlich is committed to a strong and dependable supply chain. Since 1851, the family-owned company has been processing and manufacturing raw materials for a wide variety of applications.

# Why Geistlich Derma-Gide®?

## CLINICALLY PROVEN IN THE MANAGEMENT OF DIABETIC FOOT ULCERS (DFUs)

In a 40-patient, prospective, randomized, controlled multi-center clinical trial comparing a purified reconstituted bilayer matrix (PRBM, Geistlich Derma-Gide®) vs. Standard of Care (SOC – collagen alginate dressing), Geistlich Derma-Gide® was found to be *superior* relative to healing rates and time to wound closure.

### Key Results



PRBM (Geistlich Derma-Gide®)  
SOC (Fibracol®)

## Results of Prospective Randomized Controlled Multi-Center DFU Clinical Trials

Comparison at 12 weeks

Summarizing the primary outcomes of comparable RCTs at 12 weeks, Geistlich Derma-Gide's **85-94%** wound closure rates compared to wound closure rates of 30-97% shown.\*

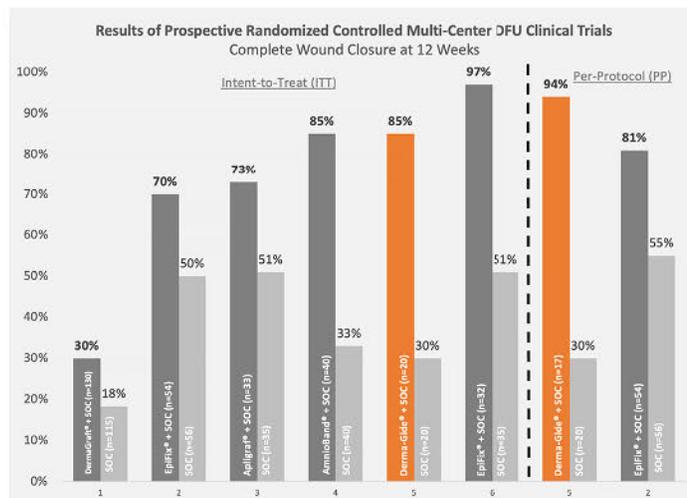
\*Note: This comparison summarizes the primary outcomes of prospective DFU RCTs at 12 weeks that utilized similar protocols

### COST EFFECTIVE

**21%– 85%**

Lower Costs to Closure Than Other Commercially Available Advanced Skin Substitutes

Geistlich Derma-Gide® is shown to have lower published costs of closure when compared to similar published prospective DFU RCTs at 12 weeks.



### REFERENCES

- Marston WA, et al. Diabetes Care. 2003;26(6):1701-1705.
- Tettelbach W, et al. International Wound Journal. 2019;16(1):19-29.
- Zelen CM, et al. International Wound Journal. 2016;13(2):272-282.
- DiDomenico LA, et al. International Wound Journal. 2018;15(6):950-957.
- Armstrong DG, et al. International Wound Journal. 2022;1-13.
- Zelen CM, et al. International Wound Journal. 2016;13(2):272-282.
- Paulos M. & Papadopoulos D. Poster presented at Diabetic Limb Salvage Conference, September 22-24, 2011, Washington, DC.
- Glat P, et al. Plast Reconstr Surg Glob Open. 2019;7(8):E2371.

# What is Geistlich Derma-Gide®?



Geistlich Derma-Gide® is a **Second Generation** Xenograft product (Xen2) that incorporates 4-Dimensions of Product Design. Unlike first generation xenografts (such as Smith & Nephew's OASIS®) that are not dual sourced or highly refined, and unlike amniotic (such as MiMedx's EpiFix®) and other human allograft tissue that cannot be highly refined or structurally optimized, the Geistlich Derma-Gide® 4D design is truly innovative and unique.



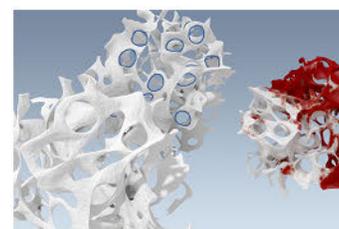
## DUAL SOURCED

- Two distinct porcine tissues selected for their specific characteristics.
- Provides optimal composition for further refinement.



## HIGHLY REFINED

- Source tissues are transformed into advanced design.
- Refinement separates Geistlich Derma-Gide® from allografts (which can only be minimally manipulated) and other first generation xenografts.



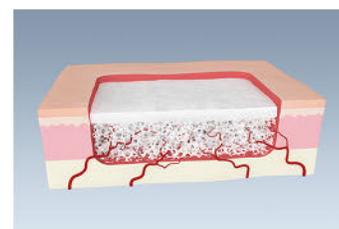
## BI-LAYERED

- Design mimics the structural organization of human skin, facilitating re-epithelialization and cell ingrowth.
- Two distinct layers are mechanically linked to form a durable and easy-to-use solution.



## STRUCTURALLY OPTIMIZED

- Upper compact layer mimics the basement membrane allowing keratinocyte migration and growth factor binding and preservation.
- Lower porous layer supports Matrix Metalloproteinase activity modulation which supports the formation of a physiological extracellular matrix.
- Provides an optimized environment for cell migration, attachment and vascularization.
- Ability to absorb up to nine times its weight in wound exudate and blood.



**Discover how the advanced design of Geistlich Derma-Gide® transforms two distinct source tissues into a clinically effective Advanced Wound Matrix.**



REFERENCE

1. Armstrong D, Orgill D, Galiano R et al. Functional Properties of a Purified Reconstituted Bilayer Matrix Design Support Natural Wound Healing Activities. Plastic and Reconstructive Surgery - Global Open. 2021;9(5):e3596. doi:10.1097/gox.0000000000003596.



4D Microsite

# Evidence Supporting Geistlich Derma-Gide®

CLINICALLY PROVEN | COST EFFECTIVE

**When it comes to the safety and quality of its products...  
 Geistlich does not compromise.**

Decades of experience with biomaterials and pioneering work achieved are documented in meaningful scientific evidence. Here is a look at Geistlich's ever growing scientific and clinical body of evidence for Geistlich Derma-Gide® published in world-renowned and prestigious global journals. Watch or read for yourself . . .

**Armstrong, David G. et al.** "Use of a Purified Reconstituted Bilayer Matrix (PRBM) in the Management of Chronic Diabetic Foot Ulcers Improves Patient Outcomes vs Standard of Care – Results of a Prospective Randomized Controlled Multi-Center Clinical Trial". *International Wound Journal*, 2022; 1-13. Wiley, <https://doi.org/10.1111/iwj.13715>



## HIGHLIGHTS:

- 85% (intent to treat; p-value 0.0004 [N = 40]) and 94% (per protocol; p-value 0.00008 [N = 37]) healing rates with Geistlich Derma-Gide® vs 30% for SOC
- Mean healing time of 36.8 days for Geistlich Derma-Gide® vs 66.5 days for SOC
- Mean cost of healing of \$1,731 for Geistlich Derma-Gide®

**Armstrong, David G. et al.** "Functional Properties Of A Purified Reconstituted Bilayer Matrix Design Support Natural Wound Healing Activities". *Plastic And Reconstructive Surgery - Global Open*, vol 9, no. 5, 2021, p. E3596. Ovid Technologies (Wolters Kluwer Health), <https://doi.org/10.1097/gox.0000000000003596>



## HIGHLIGHTS:

- Geistlich Derma-Gide® provides an optimized structure for cell migration and attachment.
- Growth factors bind to Geistlich Derma-Gide® and are preserved in an active state over time, while excessive MMP activity can be modulated.
- This in vitro data supports the promising healing rate observed clinically.



# Evidence Supporting Geistlich Derma-Gide®

## CLINICALLY PROVEN | COST EFFECTIVE

**Armstrong, David G.** "An Observational Pilot Study Using A Purified Reconstituted Bilayer Matrix To Treat Non-Healing Diabetic Foot Ulcers". *International Wound Journal*, vol 17, no. 4, 2020, pp. 966-973. Wiley, <https://doi.org/10.1111/iwj.13353>

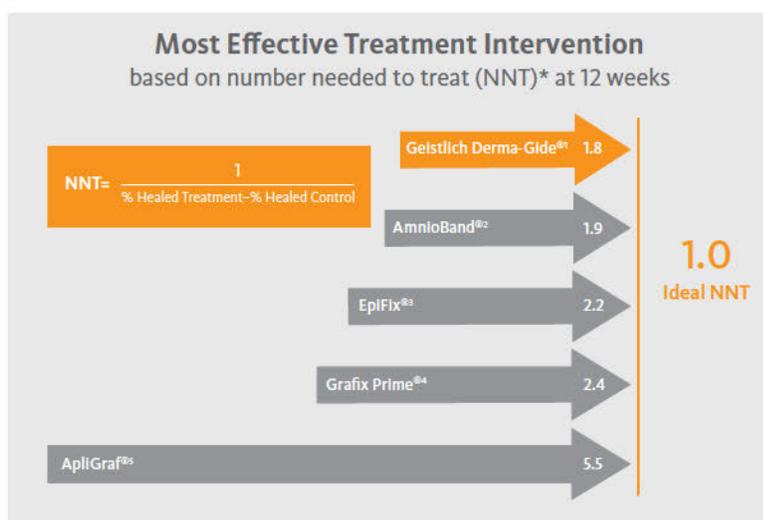


### HIGHLIGHTS:

- At study conclusion, complete wound closure was achieved for 90% of the wounds (9/10 patients).
- Average time to complete wound closure was 2.7 weeks with an average wound size of 3.3cm<sup>2</sup>.
- The average cost to treat the patients in the cohort was \$1,203.

## Side-by-side prospective RCT DFU comparison of NNT values

Comparison of NNT values to other commercially available advanced skin substitutes at 12 weeks



**Greater Power  
 Over SOC**  
 at 12 weeks

\* The Number Needed to Treat (NNT) is a common clinical measurement of the effectiveness of the intervention (in this case, Geistlich Derma-Gide®). The NNT represents a count of how many people need to be treated in order for one person to benefit. The ideal NNT value is 1 where everyone improves with the treatment, and no one improves with the control. In other words, an NNT of 1 means 100% of patients benefit with treatment and 0 benefit from control. The closer the NNT value is to 1, the more effective the treatment.

Based on similar 12-week RCT DFU studies and their associated published NNT values, Geistlich Derma-Gide® is found to be the most effective treatment intervention. With the NNT value of 1.8, Geistlich Derma-Gide® is closest to the ideal NNT of 1.0.

### REFERENCE

1. Armstrong DG, et al. *Int Wound J*. 2022;1-13.
2. DiDomenico et al. *Int Wound J*. 2018;15:950-957.
3. Zelen, CM et al. *Int Wound J*, 2016 Apr;13(2):272-82.
4. Lavery, L. et al. *Int Wound J*, 2014, 11(5), 554-560.
5. Veves, A. et al. *Diabetes Care*, 2001, 24(2), 290-295.

# Enhanced Patient & Provider Experience

## For the Patient

Geistlich Derma-Gide® offers many unique and differentiated characteristics that may enhance the patient experience. For example, the matrix can be applied to a freshly debrided wound given its excellent soaking capacity (absorbs up to 9x its weight in fluid). This may result in less discomfort for the patient and a faster application time since the provider does not have to wait until the prepared wound bed is fully dry. The product has also been shown to support wound closure in as little as 2.7 weeks<sup>1</sup>, which results in favorable economic value for patient, provider and facility.



## For the Provider

Geistlich Derma-Gide® is an easy to use advanced wound matrix that requires no special handling or storage. Due to its soaking capacity, the supplies and need to dry the wound prior to application are eliminated. This, in turn, can save additional costs as well as valuable clinic and provider time. The matrix is a second generation xenograft (Xen<sup>2</sup>) derived from highly purified and refined porcine material that is stored at room temperature and can be easily trimmed and shaped to fit the patients wound size. Trimming and shaping, if necessary at all, is performed using standard instruments. The product comes in a wide variety of shapes and sizes (one of the broadest portfolios commercially available), which results in minimal preparation, saving valuable time in the wound clinic or the physician's office. The broad portfolio also reduces or even eliminates wastage of unused product.



## Comprehensive Array of Sizes & Shapes

Geistlich Derma-Gide® is available in a wide variety of sizes and shapes in order to minimize trimming and shaping and to optimize the overall cost when treating patients with chronic wounds.

1. <https://onlinelibrary.wiley.com/doi/10.1111/iwj.13353>

## Advantageous in Deeper, More Difficult to Heal Wounds

### Thickness Range Comparison

Geistlich Derma-Gide® TWO QUARTERS	INTEGRA AMNIOEXCEL® (amnion only)	MIMEDX EPIFIX® (amnion/chorion)	WRITING PAPER
			
3-5mm <sup>a</sup> 3-5mm <sup>b</sup>	.05mm-0.1mm <sup>c</sup>	0.2mm-0.25mm <sup>c</sup>	0.1mm <sup>d</sup>

- Amniotic (placental) tissues range in thickness from 0.05mm-0.35mm
- Geistlich Derma-Gide® may be up to 100x thicker than amniotic tissue forms

A. Data on file  
 B. <https://www.usmint.gov/learn/coin-and-medal-programs/coin-specifications>  
 C. J Biomed Mater Res B Appl Biomater 2015 Jul;103(5):1133-40.  
 D. [https://slate.com/technology/2014/05/saturn-s-rings-to-scale-thinner-than-paper.html#:~:text=But%20how%20thin%20is%20that,\(0.1%20mm\)%20in%20thickness](https://slate.com/technology/2014/05/saturn-s-rings-to-scale-thinner-than-paper.html#:~:text=But%20how%20thin%20is%20that,(0.1%20mm)%20in%20thickness)

## Geistlich Customer Care

### Customers can place orders through Geistlich

#### Orders through Geistlich

Regular order placement, consignment order placement & billing, inventory availability inquiries, shipment confirmation, pricing & invoicing inquiries

Monday – Friday: 9:00 am – 5:00 pm EST

Email: [orders@geistlich-na.com](mailto:orders@geistlich-na.com)

Phone: 877.485.2968

Fax: 609.779.6565



#### Reimbursement Support

Geistlich Medical and Argenta Advisors have partnered to provide following services:

- Answers to coding, coverage, and payment questions
- Benefits verification
- Prior Authorization (or Pre-Determination) Support, when needed
- Appeals support
- Pre-service denials
- Post-service claim denials

If you have any additional questions regarding coding, coverage and payment or require assistance with pre-certification, prior-authorization, or coverage appeals for a particular patient, contact the Geistlich Reimbursement Hotline.

Our most recent reimbursement coding guides can be provided upon request.

Hotline Number: 844.339.8148

Hotline Fax: 844.339.8149

Hotline Email: [geistlichreimbursement@argentaadvisors.com](mailto:geistlichreimbursement@argentaadvisors.com)

Hours of operation: 8:00 am – 5:00 pm CST

**argenta** *advisors*  
Life Science Reimbursement Consulting



www.derma-gide.com

**Manufacturer**

Geistlich Pharma AG  
Bahnhofstrasse 40  
CH-6110 Wolhusen, Switzerland  
Phone +41 41 492 55 55  
Fax +41 41 492 56 39

**Distributed by**

Geistlich Pharma North America, Inc.  
902 Carnegie Center Boulevard, Suite 360  
Princeton, NJ 08540 USA  
Phone toll-free 877.485.2968  
info@geistlich-na.com

GS-3039-21P © 2021 Geistlich Pharma AG  
Subject to modifications.  
Geistlich Pharma North America, Inc.

**EXACTLY**  
 like no other.

 **swiss made**

# How can you measure a company like Geistlich?

## EXACTLY

### Longevity

- Founded in 1851 in Zurich
- Two sites in central Switzerland, 10 subsidiaries and distribution in over 90 countries

### Stability

- 100% family owned
- Since its founding the company has focused on sustainable, independent success through its own strengths
- Ability to think in long-term perspectives

### Commitment

- Collaborations with >100 universities
- Extensive research has resulted in more than 1,000 scientific publications confirming the efficacy of Geistlich biomaterials

### Partnership

- Three Foundations supported by the Geistlich family: The Osteology, OrthoRegeneration Network, and the OsteoScience Foundations are completely independent non-profit organizations that link science with practice in regeneration
- Founded to promote research as well as education for the benefit of patients worldwide

### Trusted Clinical Solutions

- Every 15 seconds a Geistlich product is used somewhere in the world
- More than 10 million patients have been treated with Geistlich regenerative products over the last 30 years

