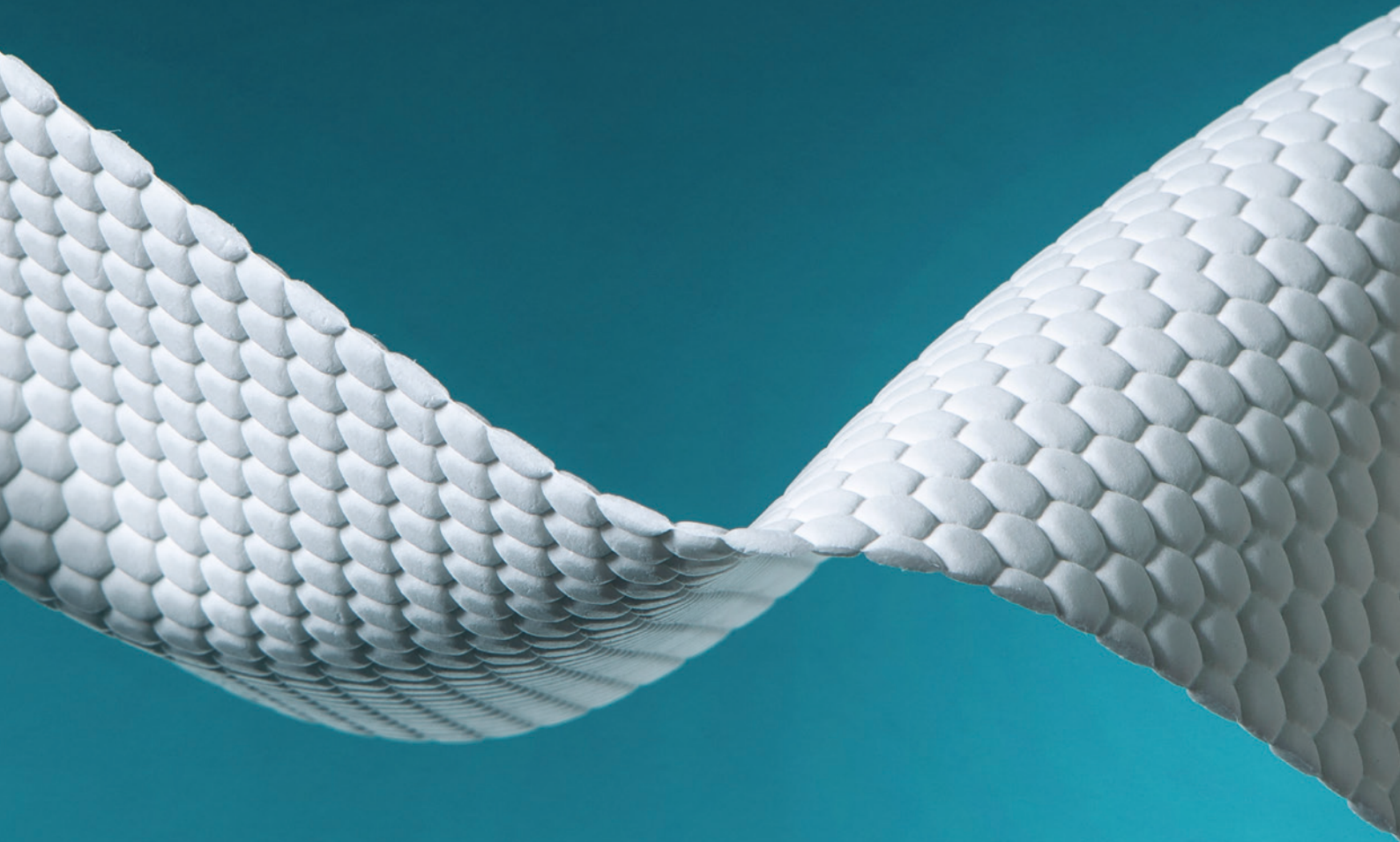


Flexible solutions
for **complex**
wound reconstruction



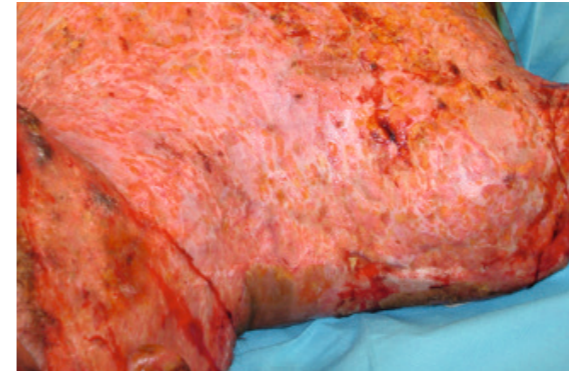
The clinical challenge

Clinical situations may be challenging. The patients you see on a daily basis require fast, effective treatment for a range of full-thickness wounds. Your goal is to help the patient to get back to normal life while managing the overall treatment costs.

Challenges of full-thickness wound injuries and grafting:

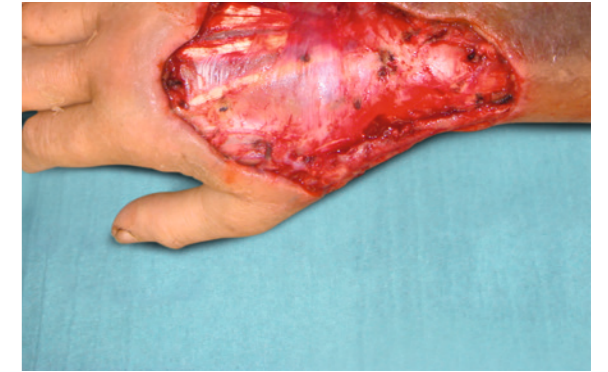
- Fast revascularization of grafts
- Exposed tendon and bones
- Patient functionality and scarring
- Multiple operating-room requirements and procedures

Burns



A 42-year-old male presented with a flame burn, 42% TBSA on chest and neck. Early excision was performed on day four.*

Trauma



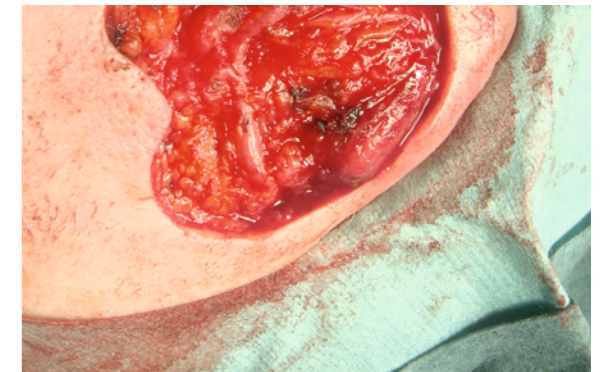
A 64-year-old female presented with an infected dog bite on the dorsum of the hand. After one month of pre-treatment in a general hospital, the wound bed was still necrotic.**

Chronic Wound



A 60-year-old male with diabetic foot syndrome and a history of obesity and coronary heart disease, presented with a gangrenous right foot.***

Cancer Excision



A 42-year old female presented with a basal cell carcinoma in the face. The cancer was excised widely, resulting in a deep dermal wound.****

Adhesion Barrier

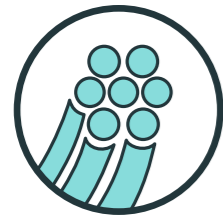


63-year-old patient with tenolysis, tendon adhesion after foot surgery*****

* Courtesy of E. Dantzer, Toulon, France
** Courtesy of U. Hug, MD, Luzern, Switzerland
*** Courtesy of D. Luedi, Langenthal, Switzerland
**** Courtesy of N. Lilgenau, MD, Vienna, Austria
***** Courtesy of U. Graf, MD, Zurich, Switzerland

The solution

MatriDerm® is a unique collagen elastin matrix, which serves as a dermal replacement scaffold.



Native collagen fibers

- Guided healing to avoid unstructured scar tissue^{8,10,11}
- Improved cell migration and reconstruction of new dermis^{10,11} scaffold.



Elastin

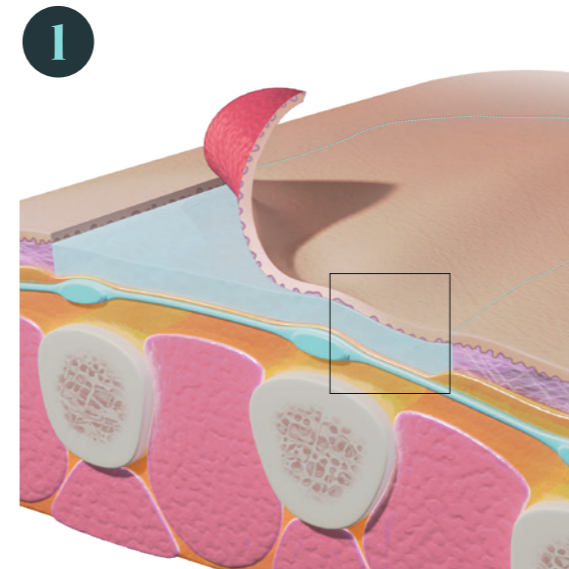
- Triggers early vascularization^{3,4,5,19} and may reduce risk of infection (revascularization allows for white blood cells to migrate to the site)^{18,19}
- Significantly improves skin elasticity (compared to split-thickness skin graft alone)^{1,5,6,7,9}
- Enables early physical therapy and rehabilitation²⁰



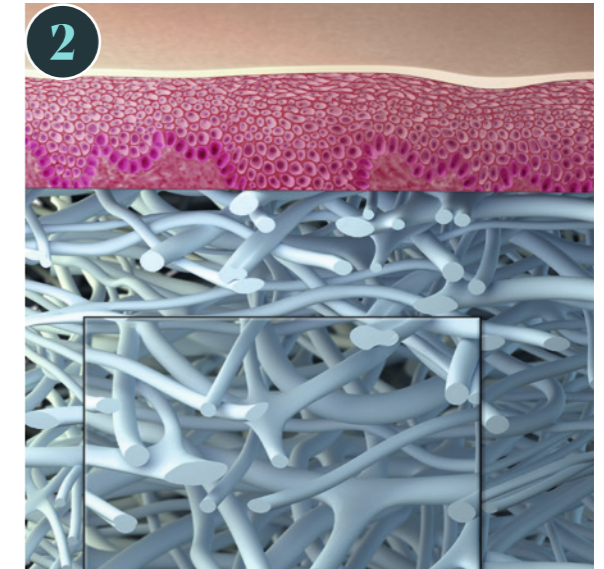
No chemical cross-linking

- Non-release of cell-toxic substances
- Improved cellular growth^{12,13}

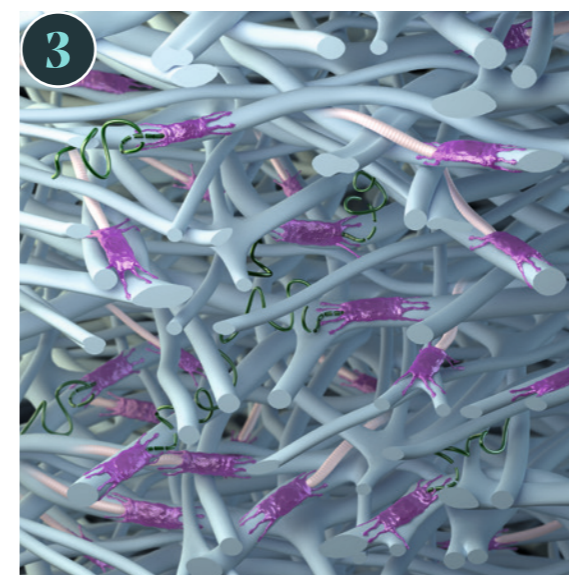
The mode of action



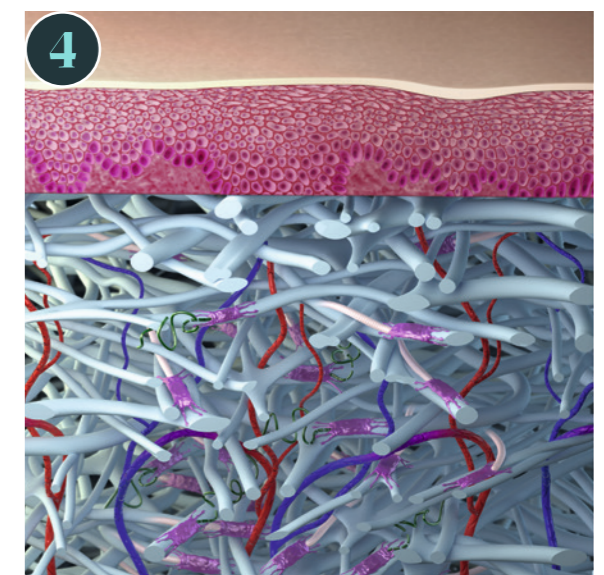
In a One- or Multi-Step Procedure, MatriDerm® is placed on the wound bed and covered with a split-thickness skin graft or a non-adherent layer plus secondary dressing of choice.



MatriDerm® provides a native three-dimensional collagen elastin matrix to facilitate cell migration and guided healing.^{8,10,11}



Fibroblasts are guided by the native collagen elastin scaffold ensuring structured healing and formation of a neo-dermis.^{8,10,11}



Enhanced neo-angiogenesis and formation of microvessels ensuring supply and optimal split-thickness skin graft take.^{1,5,6,7,9,14}

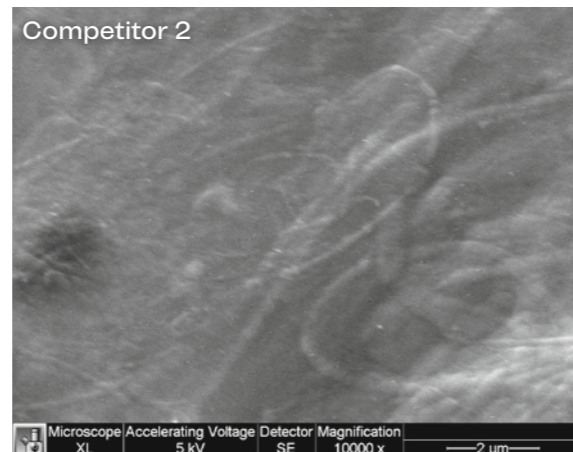
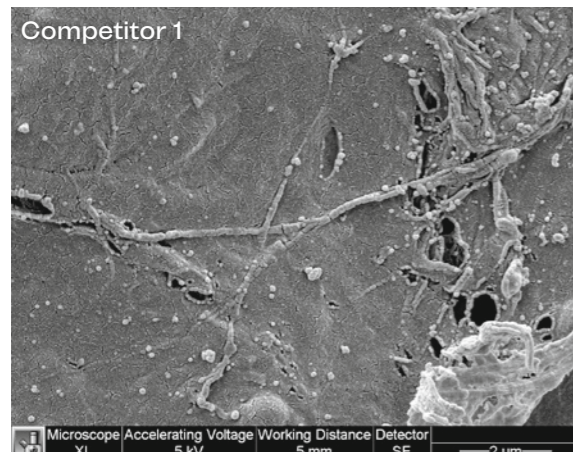
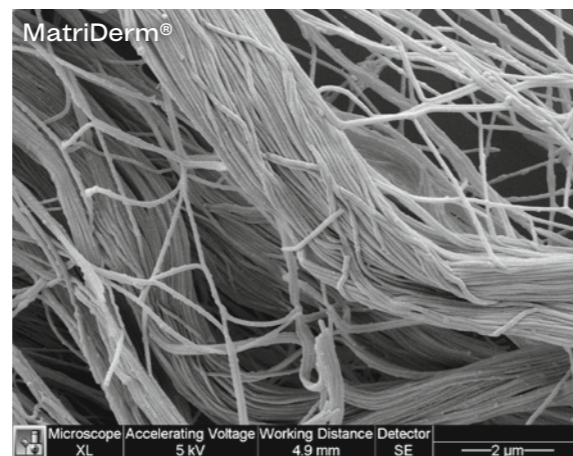
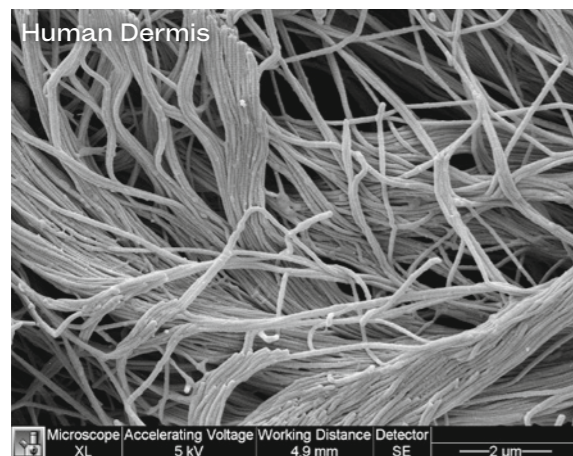
The scientific difference

MatriDerm® is able to preserve closeness to human dermis, accelerate cell invasion, cell elongation and proliferation and limit myofibroblast formation which is associated with less wound contraction.^{2,4,10,11,12,21,22,23} This scientific performance is as a result of our Advanced CryoSafe® Method which gently preserves the native structure with no chemical crosslinking.²

Preserves

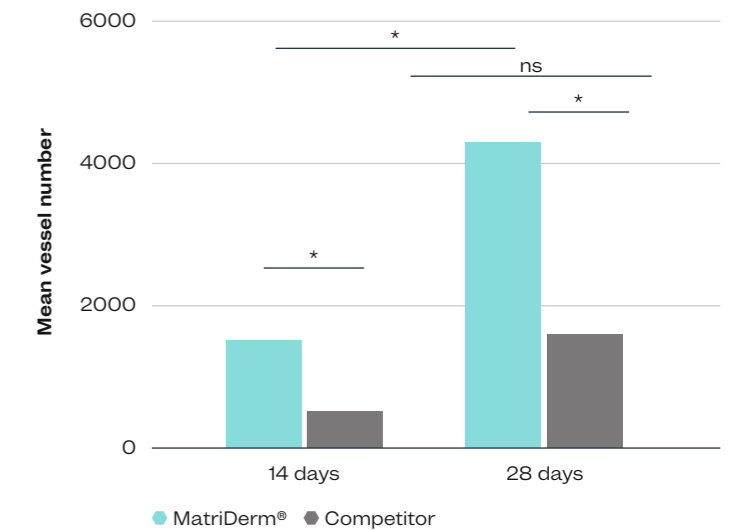
MatriDerm® preserves closeness to human dermis.^{8,21}

MatriDerm® has similar ultrastructural features as native collagen fibre bundles in human dermis. The other processed dermal matrices show large fields with amorphous structures.



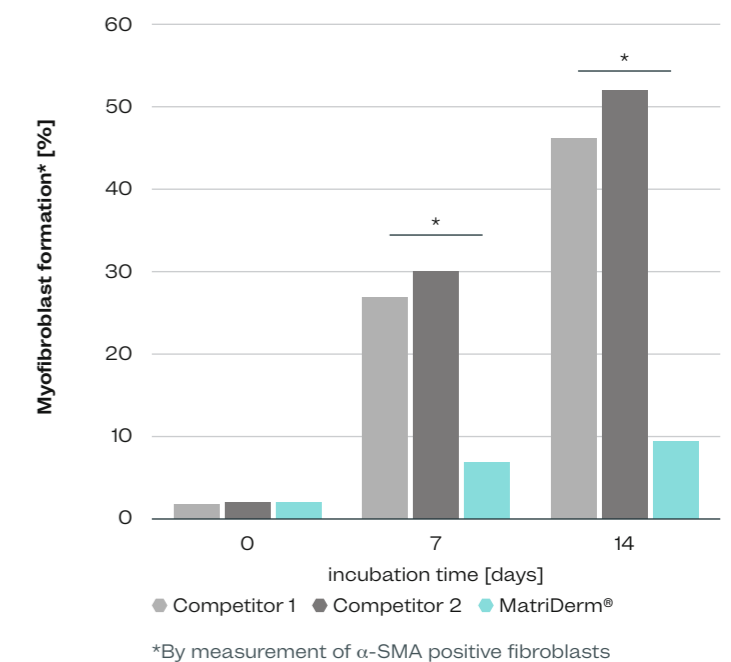
Accelerates

In an animal AV-Loop model number of new formed blood vessels were analyzed in wounds treated with either with MatriDerm® or competitor product. MatriDerm® accelerates revascularization.²³



Limits

In vitro analysis of the formation of myofibroblast phenotype by α -SMA staining. MatriDerm® limits myofibroblast formation compared to competitor products²¹. Myofibroblast formation is associated with wound contraction²². By limiting myofibroblast formation wound contraction is limited.^{10,11,24}

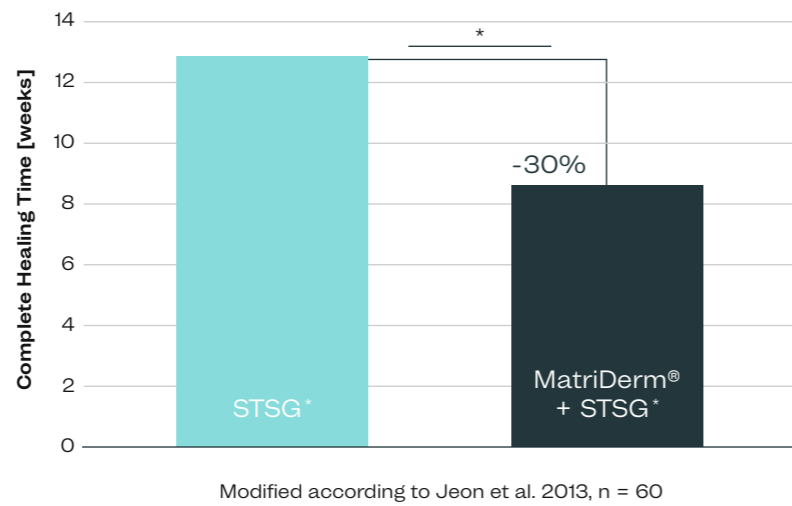


The clinical evidence

Under clinical evaluation MatriDerm® has shown to be fast and effective in the treatment of a range of full-thickness wounds, helping patients back to normal life and reducing the overall cost of care.

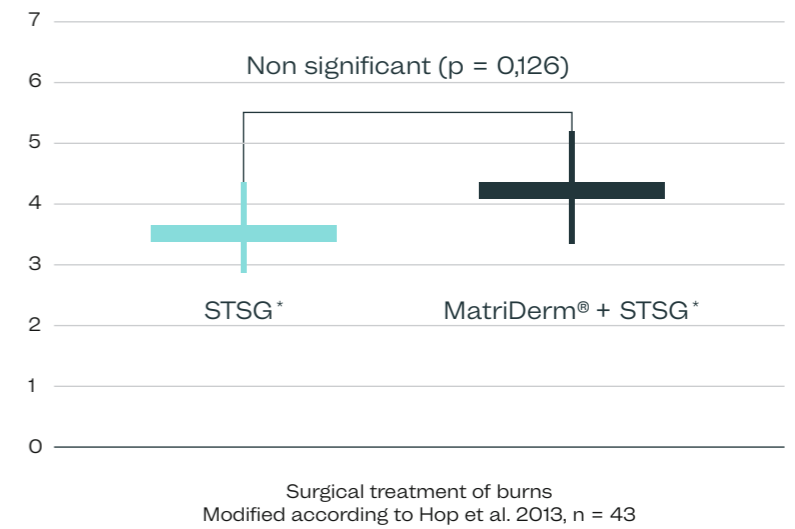
Fast

Shorter healing period with MatriDerm®



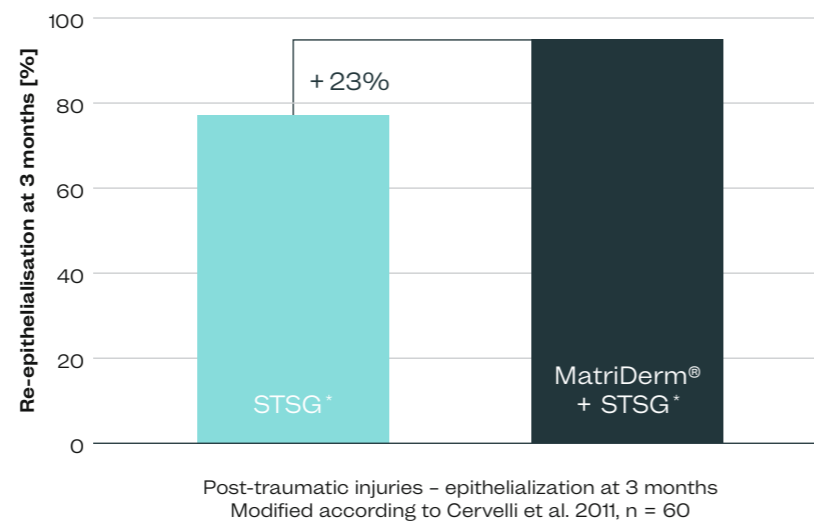
Cost effective

Total surgical treatment costs don't differ significantly from STSG*



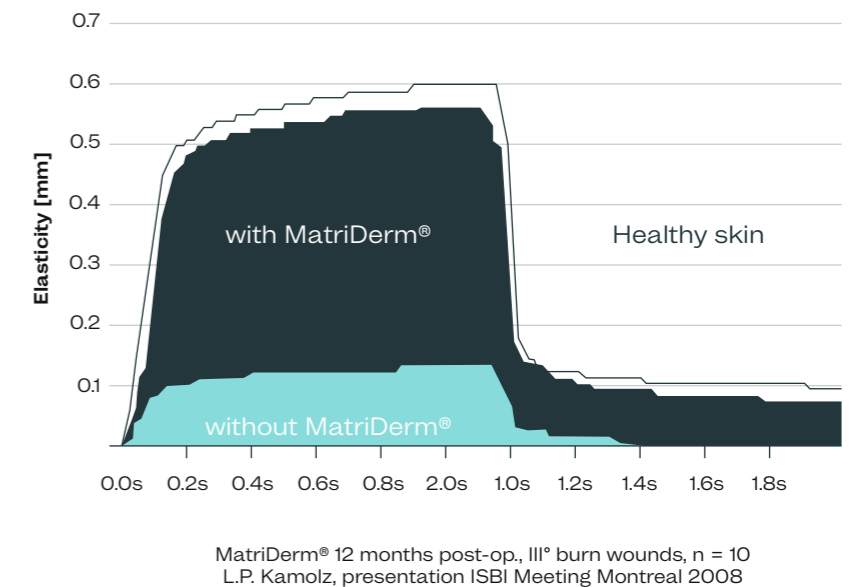
Effective

Improved efficacy with MatriDerm®



Skin elasticity

Improved skin elasticity (close to healthy skin) – determination via Cutometer® measurement



* Split-thickness skin graft

The clinical outcomes

The long-lasting effect on scar quality by the use of MatriDerm®, even after 12 years, has been shown by Bloemen et. al¹:

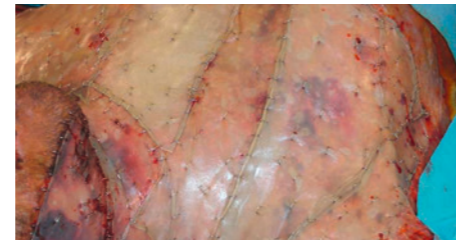
- ◆ Improved scar parameter and scar appearance (cosmetic) (compared to split-thickness skin graft alone)

Burns

Courtesy of E. Dantzer, Toulon, France



Intraoperative



Intraoperative after the application of MatriDerm®



3 years postoperative



3 years postoperative

Trauma

Courtesy of U. Hug, MD, Luzern, Switzerland



Intraoperative after debridement



Intraoperative after the application of MatriDerm® and mesh graft



Stable wound closure 3 months postoperative



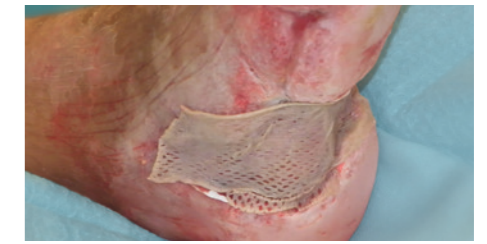
Full extension 2 years postoperative

Chronic wound

Courtesy of D. Luedi, Langenthal, Switzerland



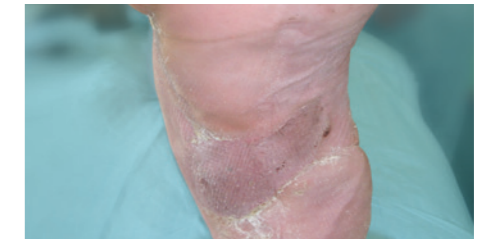
Preoperative



Intraoperative after the application of MatriDerm® and mesh graft



3 months postoperative



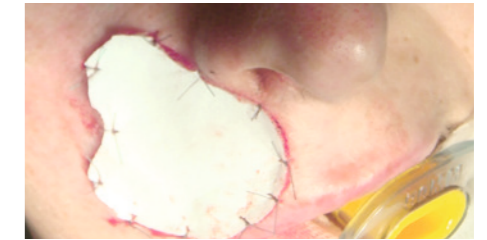
6 months postoperative

Cancer excision

Courtesy of N. Lilgenau, MD, Vienna, Austria



After excision



Intraoperative after the dry application of MatriDerm®



7 months postoperative



7 months postoperative

Adhesion Barrier

Courtesy of U. Graf, MD, Zurich, Switzerland



Surgical approach at the musculus flexor digitorum brevis



MatriDerm® is wrapped around tendon to prevent further adhesions and secure functionality



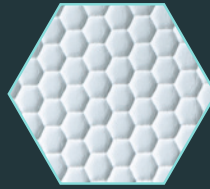
Gentle pull through of a small sheet of dry 1mm MatriDerm®



Final view before wound closure

matriderm[®] flex

DERMAL MATRIX

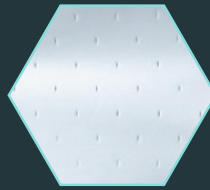


- Flexible
- More collagen*
- Stronger*
- Conformable at complicated anatomic areas
- Easy to use, handle and apply
- All sizes available in 3 different thicknesses

	Ref. No.	Size
A4	83440 - 200	210 x 297 x 1mm
	83460 - 200	210 x 297 x 2mm
	83470 - 200	210 x 297 x 3mm
A6	83441 - 200	105 x 148 x 1mm
	83461 - 200	105 x 148 x 2mm
	83471 - 200	105 x 148 x 3mm
A8	83442 - 200	52 x 74 x 1mm
	83462 - 200	52 x 74 x 2mm
	83472 - 200	52 x 74 x 3mm
A9	83443 - 200	37 x 52 x 1mm
	83463 - 200	37 x 52 x 2mm
	83473 - 200	37 x 52 x 3mm

matriderm[®]

FENESTRATED DERMAL MATRIX

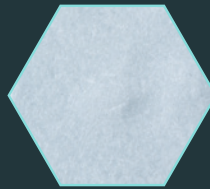


- For high exudating wounds
- More collagen*
- Stronger*
- Easy to use, handle and apply
- All sizes available in 3 different thicknesses

	Ref. No.	Size
A4	83410 - 200	210 x 297 x 1mm
	83420 - 200	210 x 297 x 2mm
	83430 - 200	210 x 297 x 3mm
A6	83411 - 200	105 x 148 x 1mm
	83421 - 200	105 x 148 x 2mm
	83431 - 200	105 x 148 x 3mm
A8	83412 - 200	52 x 74 x 1mm
	83422 - 200	52 x 74 x 2mm
	83432 - 200	52 x 74 x 3mm
A9	83413 - 200	37 x 52 x 1mm
	83423 - 200	37 x 52 x 2mm
	83433 - 200	37 x 52 x 3mm

matriderm[®]

DERMAL MATRIX



- CE-certified since 2005
- Available in 2 different thicknesses
- Available in 4 different sizes

	Ref. No.	Size
A4	83500 - 200	210 x 297 x 1mm
	83400 - 200	210 x 297 x 2mm
A6	83403 - 200	105 x 148 x 1mm
	83401 - 200	105 x 148 x 2mm
A8	83404 - 200	52 x 74 x 1mm
A9	83405 - 200	37 x 52 x 1mm

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* 3 mm compared to 1mm sheet of Matriderm® Flex / Fenestrated Dermal Matrix

Please check complete indications and recommended application in your local Instructions for Use (IFU) before using Matriderm®.

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