∠matriderm®

Flexible solutions for complex wound reconstruction



Product Brochure

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



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

- Courtesy of E. Dantzer, Toulon, France
- ** Courtesy of U. Hug, MD, Luzern, Switzerland
- **** Courtesy of N. Lilgenau, MD, Vienna, Austria

Burns



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

*** Courtesy of D. Luedi, Langenthal, Switzerland

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.**

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.***

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}
- Non-release of celltoxic substances

No chemical

cross-linking

Improved cellular
growth^{12,13}

- Significantly improves skin elasticity (compared to splitthickness skin graft alone)^{1,5,6,7,9}
- Enables early physical therapy and rehabilitation²⁰

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.



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



MatriDerm[®] provides a native three-dimensional collagen elastin matrix to facilitate cell migration and guided healing.^{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 myofribroblast 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}





nation* [%]

Wvofibroblast for

*By measurement of α -SMA positive fibroblasts

The clinical evidence

months [%]

at 3 |

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



Shorter healing period with MatriDerm[®]

Fast



Post-traumatic injuries - epithelialization at 3 months Modified according to Cervelli et al. 2011, n = 60

Cost effective

Skin elasticity

Improved skin elasticity (close to

healthy skin) - determination via

Cutometer[®] measurement

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



0.6 0.5 0.4 0.3 0.2 0.1

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0.7

Elasticity [mm]

Effective

MatriDerm®

Improved efficacy with

MatriDerm[®] 12 months post-op., Ill[°] burn wounds, n = 10 L.P. Kamolz, presentation ISBI Meeting Montreal 2008

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

Chronic wound

Courtesy of D. Luedi, Langenthal, Switzerland



Preoperative



3 months postoperative

Trauma

Courtesy of U. Hug, MD, Luzern, Switzerland



Intraoperative afterdebridement



Intraoperative after the application of MatriDerm[®] and mesh graft



Stable wound closure 3 months postoperative



Full extension 2 years postoperative

Cancer excision

Courtesy of N. Lilgenau, MD, Vienna, Austria



After excision



7 months postoperative





Intraoperative after the application of MatriDerm® and mesh graft





6 months postoperative



Intraoperative after the dry application of MatriDerm®





7 months postoperative

MatriDerm[®] Flex Dermal Matrix

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

MatriDerm[®] Fenestrated **Dermal Matrix**

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

MatriDerm[®] Dermal Matrix

	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 2 mm
A8	83404 - 200	52 x 74 x 1mm
A9	83405 - 200	37 x 52 x 1mm

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





References

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