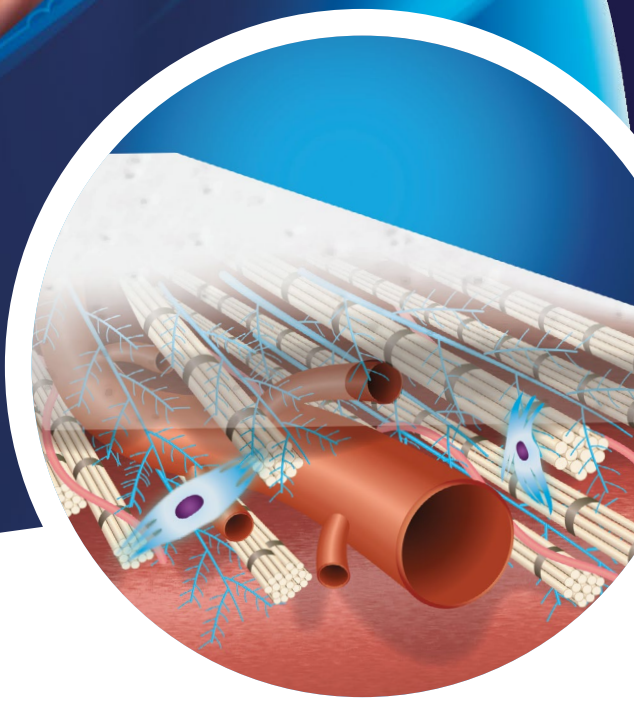


COLLAGEN MATRIX
FOR SOFT TISSUE
REPAIR

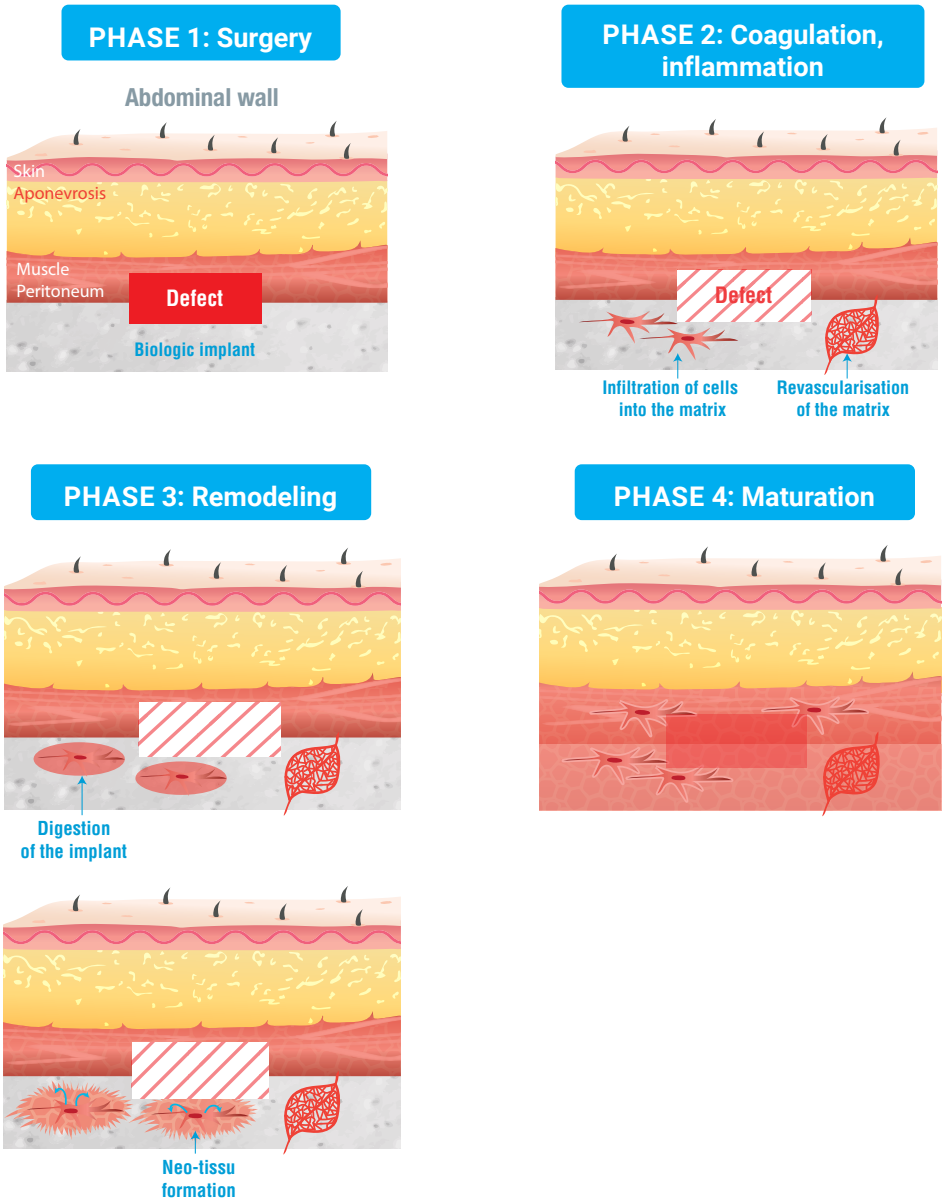
cellis®

THE BEST OF
TISSUE REGENERATION
FOCUSED ON PATIENTS' NEEDS

Tissue regeneration is a natural process by which the body forms a functional neo-tissue to repair a wound. This process requires the patient's cells to colonize the wound and vascularize it[1].

The function of a biological implant is to act as a temporary support for the cells, which are naturally remodeled during the process of tissue regeneration[2].

Meccellis Biotech has concentrated all its know-how to make CELLIS®, an efficient collagen matrix by allowing a gradual remodeling and leading to a physiological and healthy repair.



ACHIEVE POSITIVE OUTCOMES USING **CELLIS® MATRIX FOR ABDOMINAL WALL REPAIR**

+ Acellular
+ Easy to use
+ Quick hydration
+ Freeze-dried and free from preservative
+ Upto 3 years preservation
+ Tissue structure close to human dermis [3]
+ Without any allergenic bovine proteins [4–8]
+ Without risk of TSE (Transmissible Spongiform Encephalopathy) [9,10]

Performing Abdominal Wall repair is a challenge for even the highest experienced surgeons since multiples variables may affect the expected results of the surgery. Therefore the careful selection of the proper matrix and optimal surgical practices are really important to optimize the successfull outcome of the procedure.

CELLIS® is one of the latest generation of the biological implant combining drastic selection of tissues, exclusive manufacturing process preserving the natural structure of the dermis, no preservatives and a moderate price.

Classification from the Ventral Hernia Working Group (VHWG) to stratify patient risk of developing postoperative complications and promote improved patient selection for different surgical repair approaches[11]

Grade 1 Low risk	Grade 2 Co-Morbid	Grade 3 Potentially contaminated	Grade 4 Infected
Low risk of contaminations, No history of wound infection.	Smoker, Obese, Diabetic, Immunosuppressed.	Previous wound infection, Presence of ostomy, Violation of the gastrointestinal tract.	Grossly infected mesh, Septic dehiscence.

Synthetic meshes — Biological implants

Modified Scale taking in consideration the CDC wound classification system (Centers for Disease Control and Prevention) in predicting complications[12]

Grade 1 Low risk	Grade 2 Co-Morbid	Grade 3 Contaminated
Low risk of contaminations, No history of wound infection.	Smoker, Obese, COPD, Diabetes mellitus, History of wound infection.	A: Clean-contaminated, B: Contaminated, C: Dirty.

EXCLUSIVE
MANUFACTURING PROCESS

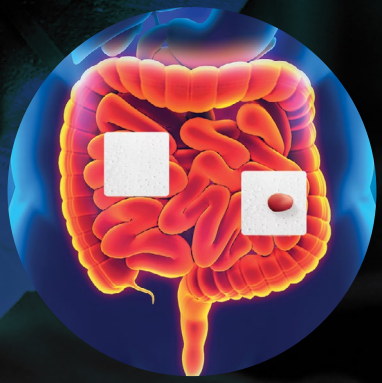
CELLIS® is manufactured with an exclusive process, based on our high experienced tissue acellularization. It has been developed with the aim of preserving the essential qualities of the best porcine dermis.

- **Purification process:** it enables to preserve the natural structure of the dermis. This exclusive process avoids the addition of chemical agents.

- **Preservative-free:** The CELLIS® matrix uses the freeze dry technology which allows long-term preservation in a double sterile packaging without preservatives.

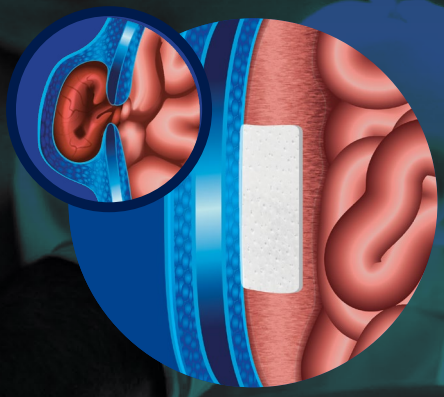
BIOLOGICAL IMPLANT FOR RECONSTRUCTION, REBUILDING
AND REGENERATION OF SOFT AND CONNECTIVE TISSUE

Complex abdominal wall surgery in infected or potentially infected field. Replacement of contaminated mesh. Abdominal reconstruction for surgical oncology.

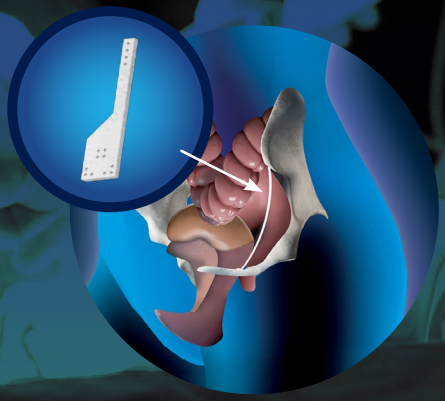


Stoma closure. Parastomal hernia.

Hiatus Hernia treatment.



Strangulated ventral hernia.

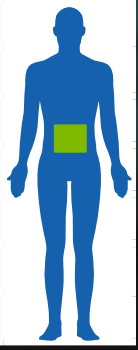


Rectal prolapse treatment.

cellis®

OUR **REFERENCES**

Sizes	References	Thicknesses	Shapes
5 x 5 cm	C55E	1,4 mm	
8 x 8 cm	CS88F	0,9 mm	
10 x 10 cm	CS1010F	0,9 mm	
8 x 8 cm	CH88E	1,4 mm	
10 x 10 cm	CH1010E	1,4 mm	
10 x 15 cm	C1015E	1,4 mm	
15 x 20 cm	C1520E	1,4 mm	

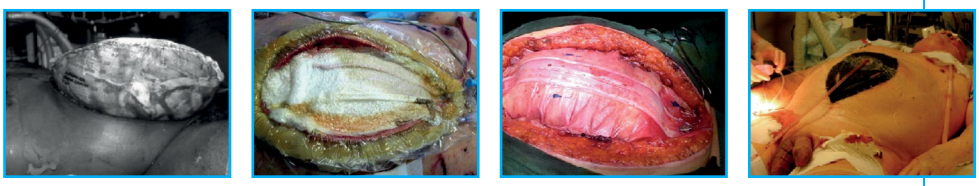


Sizes	References	Thicknesses	Shapes
18 x 25 cm	C1825E	1,4 mm	
20 x 30 cm	C2030E	1,4 mm	
30 x 30 cm	C3030E	1,4 mm	
30 x 40 cm	C3040E	1,4 mm	

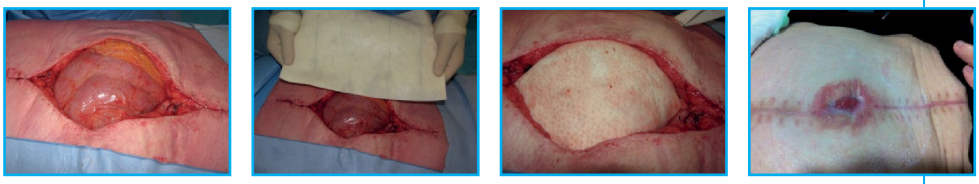
cellis® Rectopexy

6 x 18 x 3 cm	CR618EP	1,4 mm	

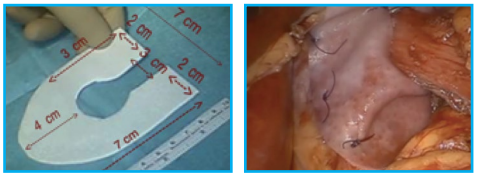
EXAMPLES
OF CLINICAL CASES



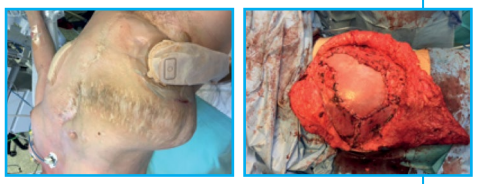
Abdominal compartment syndrome.



Granulation tissue formation following negative pressure therapy.



Hiatus hernia treatment.



Complex abdominal wall surgery.

PUBLICATIONS

Bioprosthetic mesh reinforcement during temporary stoma closure decreases the rate of incisional hernia.

A blinded, case-matched study in 94 patients with rectal cancer. Léon Maggiori, MD,[a] David Moszkowicz, MD,[a] Magaly Zappa, MD,[b] Cécile Mongin, MD,[a] and Yves Panis, MD, PhD,[a] *Clichy, France*.

http://dx.doi.org/10.1016/j.surg.2015.07.004

Anatomic and functional results of ventral biological mesh rectopexy for posterior pelvic floor disorders.

F. Rogier-Mouzelas, F. Drissi, J. Podevin, E. Duchalais, G. Meurette

https://doi.org/10.1016/j.jviscsurg.2022.09.009

REFERENCES

1. Atala, A., Irvine, D. J., Moses, M. & Shaunak, S. Wound Healing Versus Regeneration: Role of the Tissue Environment in Regenerative Medicine. MRS Bull. Mater. Res. Soc. 35, 10.1557/mrs2010.528 (2010).

2. Bryan, N. et al. The in vivo evaluation of tissue based biomaterials in a rat full thickness abdominal wall defect model. J. Biomed. Mater. Res. B Appl. Biomater. 102, 709–720 (2014).

3. Cornwell, K. G., Landsman, A. & James, K. S. Extracellular Matrix Biomaterials for Soft Tissue Repair. Adv. Wound Bone Heal. 26, 507–523 (2009).

4. Stegman, S. J., Chu, S. & Armstrong, R. C. Adverse Reactions to Bovine Collagen Implant: Clinica1 and Histologic Features. J. Dermatol. Surg. Oncol. 14, 39–48 (1988).

5. Siegle, R. J., McCoy, J. P., Schade, W. & Swanson, N. A. Intradermal implantation of bovine collagen: humoral immune responses associated with clinical reactions. Arch. Dermatol. 120, 183–187 (1984).

6. Mullins, R. J., Richards, C. & Walker, T. Allergic reactions to oral, surgical and topical bovine collagen: Anaphylactic risk for surgeons. Aust. N. Z. J. Ophthalmol. 24, 257–260 (1996).

7. Cooperman, L. & Michaeli, D. The immunogenicity of injectable collagen. I. A 1-year prospective study. J. Am. Acad. Dermatol. 10, 638–646 (1984).

8. Struck, H. Immunological investigations of antigenicity and specificity of soluble collagen fractions. Eur. Surg. Res. 8, 243–249 (1976).

9. NF EN ISO 22442-1 2020.

10. Règlement (UE) N°722/2012.

11. Clayton C. Petro, Yuri W. Novitsky. Classifications of hernias. Springer. DOI 10.1007/978-3-319-27470-6_2 (2016).

12. Arielle E Kanters, BS, David M Krpata, MD, Jeffrey A Blatnik, MD, Yuri M Novitsky, MD, Michael J Rosen, MD, FACS. Modified Hernia Grading Scale to Stratify Surgical Site Occurrence after Open Ventral Hernia Repairs. (J Am Coll Surg 2012;215:787e793.! 2012 by the American College of Surgeons).

PRODUCT DESCRIPTION

CELLIS® is a cell-free, non-pyrogenic collagen matrix (acellular dermal matrix ADM) obtained from porcine skin. CELLIS® is intended for use as a surgical matrix in soft tissue repairs and serves to support, cover or replace tissue. CELLIS® is available in various sizes, shapes and thicknesses. CELLIS® comes in double sterile packaging, is supplied dry and does not contain any preservatives. This surgical matrix is a resilient, biocompatible implant, which incorporates into the host tissue through cellular and microvascular infiltration, and should not require another surgical procedure due to removal.

COMPOSITION

Sterile, acellular, type I & III porcine dermis derived collagen matrix.

INTENDED USE AND INDICATION

CELLIS® is intended for implantation to reinforce soft tissue where weakness exists and for surgical repair of damaged or ruptured soft tissue membrane.
It is intended to be used to reconstruct, to recontour and to reform the host's human soft connective tissue particularly where loss of tissue has occurred and as a supporting tissue in digestive surgical procedures.
Indications for use include the repair of hernias and/or body wall defects which require the use of reinforcing or bridging material to obtain the desired surgical outcome such as incisional/ventral hernia repair, abdominal wall reconstruction, stoma closure, hiatal hernia repair, rectal prolapse repair by rectopexy and perineal reconstruction in colorectal diseases.

CONTRAINDICATIONS

The matrix should not be used on patient less than eighteen years old. The matrix is made of porcine dermis and cannot be used in patients with known hypersensitivity to porcine materials. There has neither been any testing on the use of the matrix during pregnancy and breastfeeding. Matrix should not be used during pregnancy and breastfeeding.

STORAGE

- Store at room temperature as indicated on the label.
- Keep away from heat sources and direct sunlight.
- Store inside the original packaging.

Brochure is intended for healthcare professionals only.
The « Instructions for Use » attached to the packaging should be read carefully.

Visit
www.meccellis.com
and contact your sales representative for more information.

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