Kereels

Kerecis® Omega3 Wound

Intact fish skin grafts for tissue regeneration

- Rich in Omega3 and homologous to human skin
- Two double-blind RCTs
- Faster healing than amnion membrane and mammalian tissue
- Superior economic performance
- Natural microbial barrier
- Sustainably harvested

What is Kerecis[®] Omega3 Wound?

Kerecis® Omega3 Wound is intact fish skin that is homologous to human skin and is used for tissue regeneration and grafting. Kerecis Omega3 Wound is FDA indicated for multiple clinical applications.

Because there is no risk of a viral-disease transfer from Atlantic cod to humans, the fish skin needs only mild processing for medical use and maintains its natural structure and elements, including Omega3 fatty acids.

When grafted onto damaged human tissue, such as a burn or a wound, the fish-skin recruits the body's own cells, supporting the body's own ability to regenerate. The fish skin is a natural microbial barrier.

The superior clinical and economical performance of Kerecis Omega3 Wound has been demonstrated in two non-industry funded, double-blind, randomized clinical trials and in numerous other clinical studies.

Clinical Advantages

- Room temperature storage
- **3** years shelf life
- Durable for staples & sutures
- No cultural or religious conflicts
- Sizes from 3cm²-140cm²

Kerecis® Omega3 Wound is homologous to human skin



Scanned electron microscopy images of human skin (left) and Kerecis® Omega3 Wound (right) show the structural similarities between the skin types.

| MOLECULES IN HUMAN SKIN | INTACT FISH SKIN | PROCESSED MAMMALIAN TISSUE |
|-------------------------------|--------------------------|----------------------------------|
| Collagens | ✓ | \checkmark |
| Elastin | ✓ | × |
| Laminin | ✓ | × |
| Fibronectin | ✓ | × |
| Proteoglycans | ✓ | × |
| Glycans | ✓ | × |
| Lipids No Omega3s | ✓ Includes Omega3s | × |

Left table: Comparison of skin components of Human Skin, Kerecis Omega3 Wound, and Processed Mammalian Tissue. The table highlights the similarity between human skin and fish skin and the components lost in processed mammalian tissue.

Early cellular ingrowth

The **Kerecis® Omega3 Wound** intact fish skin graft facilitates significantly more three dimensional cellular ingrowth than occurs in amnion/chorion tissue. The fish skin is thicker and the microstructure more porous, compared to mammalian matrixes and human amnion/ chorion membranes. The unique biomechanical properties of the fish skin and the size of its pores facilitate cell ingrowth, a critical step for tissue regeneration. In-vitro tests of the fish skin shows significantly more (p<0.0001) threedimensional cell ingrowth than human amnion/chorion membranes.



Top row: Scanned electron microscopy images of fish skin show a pore size of ~10-150 μ m. This is suitable for human cell infiltration because typical human cells range from ~10-100 μ m in diameter.

Amnion/chorion membrane has an avg pore size of 1.3 µm which is more than 10 times smaller than typical human cells.

Lower row: Confocal microscopy images following cell seeding and fluorescent labeling, indicated with red arrows, show examples of cell infiltration in fish skin and human amnion/chorion.

Scale bar on all images 100µm.

Proven results

Superior clinical and economic performance of Kerecis Omega3 Wound in two separate randomized controlled trials published in peer-review journal.

of Healed Wounds



Kerecis[®] Omega3 Wound vs Epifix

Kirsner et al. Fish-Skin Grafts Compared to Human Amnion/Chorion Membrane Allografts: A Double-Blind, Prospective, Randomized, Clinical Trial of Acute Wound Healing. Wound Repair and Regeneration, (2019).





Baldursson, B. T. et al. Healing rate and autoimmune safety of full-thickness wounds treated with fish skin acellular dermal matrix versus porcine small-intestine submucosa. Int. J. Low. Extrem. Wounds 14, (2015).

Indications for use

- Diabetic ulcers
- Chronic vascular ulcers
- Venous ulcers
- Pressure ulcers
- Draining wounds

- Trauma wounds: abrasions, lacerations, second-degree burns, skin tears
- Surgical wounds: donor sites/grafts, post-Mohs surgery, post-laser surgery, podiatric, wound dehiscence
- Partial and full-thickness wounds

Ordering information

orders@kerecis.com

| Description | Size | Billable Units (cm²) |
|-----------------------------------|----------------------|----------------------|
| Kerecis® Omega3 Wound | Disk, 14 mm diameter | 2 |
| Kerecis® Omega3 Wound | Disk, 16 mm diameter | 3 |
| Kerecis® Omega3 Wound | 1.75 x 1.75 cm | 4 |
| Kerecis® Omega3 Wound | 3 x 3.5 cm | 11 |
| Kerecis® Omega3 Wound Fenestrated | 3 x 3.5 cm | 11 |
| Kerecis® Omega3 Wound | 3 x 7 cm | 21 |
| Kerecis® Omega3 Wound Fenestrated | 3 x 7 cm | 21 |
| Kerecis® Omega3 Wound | 7 x 7 cm | 49 |
| Kerecis® Omega3 Wound Fenestrated | 7 x 7 cm | 49 |
| Kerecis® Omega3 Wound | 7 x 10 cm | 70 |
| Kerecis® Omega3 Wound Fenestrated | 7 x 10 cm | 70 |
| Kerecis® Omega3 Wound | 7 x 20 cm | 140 |
| Kerecis® Omega3 Wound Fenestrated | 7 x 20 cm | 140 |

Room temperature storage. 3 year shelf life.

Kerecis

OUR VISION

To become the world leader in tissue regeneration by sustainably harnessing nature's own remedies

KERECIS REIMBURSEMENT HOTLINE

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FDA approved, U.S. and international patents and trademarks granted and pending.

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