

Overlay SL™

SINGLE LAYER AMNION ALLOGRAFT
from  **BioWound**
Solutions

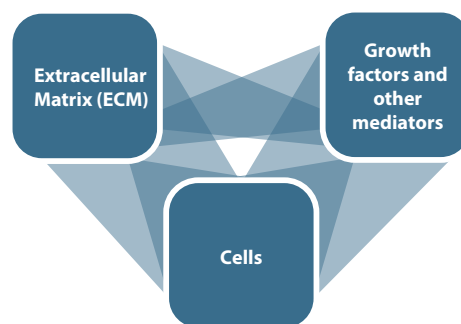
Overlay SL Matrix is a single layer dehydrated placental allograft obtained from DONATED HUMAN TISSUE. **Overlay SL is sterile and intended for single-patient, one-time, homologous use only.**



Human Placental Membrane Components^{1-4*}

Research has demonstrated that placental tissue has several properties that make it an attractive option for use in the management of soft tissue defects.

Amnion →



Platelet Derived Growth Factor (PDGF) A & B
Vascular Endothelial Growth Factor (VEGF)
Transforming Growth Factor beta (TGFβ)
Fibroblast Growth Factor (FGF)
Epidermal Growth Factor (EGF)
Angiopoietin-2 (ANG-2)

Tissue Inhibitors of Metalloproteinases (TIMPs)
Collagen Types I, III, IV, V, VII
Laminin
Fibronectin
Proteoglycans/Glycosaminoglycans (GAGs)
Hyaluronic Acid (HA)

Inherent Properties of Amniotic Tissue^{1-4*}

Modulates Inflammation

The immunomodulatory function is related to inducing a shift towards an anti-inflammatory phenotype, which aids in healing. The mechanisms involved include the suppression of key pro-inflammatory cytokines (IL-1, 6, 8, TNF-α, IFN-α), the presence of matrix metalloproteinase inhibitors (TIMPs), and the high expression of anti-inflammatory cytokines like IL-10.

Anti-scarring/ Anti-adhesive

Promoting tissue reconstruction instead of scar tissue formation and fibrosis by downregulating TGF-β and its receptor on fibroblasts. This also prevents adhesion formation by controlling inflammation and helping achieve rapid tissue healing.

Anti-microbial

Preventing infections by acting as a physical barrier to bacteria and producing anti-microbial peptides (α and β defensins, acidic peptides, and immunoglobulins).

Pro-angiogenic

Promotes healing by endothelial cell migration, proliferations, and up-regulation. Causing increased capillary density and neovascularization due to the presence of angiogenic growth factors (VEGF-A, angiopoietin-1 (ANG-1), HGF, and FGF-2)

*Based on published studies; **not specific to Overlay SL Amniotic Membrane**

POTENTIAL CLINICAL USES

Overlay SL is a single layer amniotic allograft that acts as a barrier and provides a protective environment to the wound bed in acute and chronic soft tissue defects. **It is intended for homologous use only.**



Partial and Full Thickness Wounds



Draining Wounds



Tunneling Wounds



Pressure Sores/Ulcers



**Venous Ulcers/
Chronic Vascular Ulcers**



Mohs Surgery



Diabetic Ulcers



Trauma Wounds



Surgical Wounds

Overlay SL

Q CODE	CATALOG NUMBER	SIZE	BILLING UNITS
Q4352	OVE-24222	2 x 2 cm	4
Q4352	OVE-24223	2 x 3 cm	6
Q4352	OVE-24224	2 x 4 cm	8
Q4352	OVE-24244	4 x 4 cm	16
Q4352	OVE-24246	4 x 6 cm	24
Q4352	OVE-24248	4 x 8 cm	32

References

1. Elkhenany, H., El-Derby, A., Abd Elkodous, M. et al. Applications of the amniotic membrane in tissue engineering and regeneration: the hundred-year challenge. *Stem Cell Res Ther* 13, 8 (2022). <https://doi.org/10.1186/s13287-021-02684-0>.
2. Mamede, A C et al. "Amniotic membrane: from structure and functions to clinical applications." *Cell and tissue research* vol. 349,2 (2012): 447-58. doi:10.1007/s00441-012-1424-6.
3. Munoz-Torres JR, Martínez-González SB, Lozano-Luján AD, et al. Biological properties and surgical applications of the human amniotic membrane. *Front Bioeng Biotechnol*. 2023;10:1067480. Published 2023 Jan 9. doi:10.3389/fbioe.2022.1067480.
4. Heydari, Parisa et al. "Advances and impact of human amniotic membrane and human amniotic-based materials in wound healing application." *International journal of biological macromolecules* vol. 281,Pt 4 (2024): 136596. doi:10.1016/j.ijbiomac.2024.136596

For the Overlay SL product description, precautions and possible adverse events, contraindications, instructions for use, and other important information please scan QR code

