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# **ADVANCED**

**WOUND CARE SERVICES** 



# **ADVANCED**

WOUND CARE vs Traditional wound care

- Advanced Wound Care is best defined as the ability to provide products and advanced treatments of care to heal *non-healing wounds*.
- Traditional Wound Care is the maintenance or treatment of basic care on wounds that hold the ability to heal.

## **INTRODUCTION TO THE INDUSTRY**

This is the industry of healing non healing wounds. Advanced wound care is innovative, and effective. These wounds often resist traditional methods of treatment and require specialized interventions. Where traditional wound care is not demonstrating any improvement, sign of healing, or meeting doctors expectations - advanced wound care is the best choice of ensuring the wound heals efficiently. Thanks to this method of treatment, there has been a massive decline in wound related hospitalizations, amputations and infections.

Over the last 6 years the data has shown a significant amount of savings for Medicare, by being able to treat patients and keep them out of hospitals. Non healing wounds are costly, to the tune of \$28.8 billion in pressure wounds alone in 2022. With the products effectiveness never in question, and the supporting financial data, the industry has grown and the reimbursement for advanced wound care continues to grow as well.

This has brought new opportunities to patients and doctors nationwide by using advanced wound care techniques to deliver treatments to the outpatient population and even home health.





# HUMAN AMNIOTIC MEMBRANE PATCH

#### 1-WHAT IS THE PURPOSE OF THE HUMAN AMNIOTIC MEMBRANE PATCH?

The Human Amniotic Membrane Patch is a breakthrough innovation designed to enhance wound care treatments. It harnesses the regenerative and healing properties of the human amniotic membrane to accelerate the healing process, reduce scarring, and promote tissue regeneration.

#### 2-HOW DOES THE HUMAN AMNIOTIC MEMBRANE PATCH ACCELERATE THE HEALING PROCESS?

The Human Amniotic Membrane Patch accelerates the healing process through several mechanisms: Anti-inflammatory properties: The amniotic membrane contains anti-inflammatory factors that help reduce inflammation at the wound site. This reduces pain, swelling, and tissue damage, allowing the healing process to proceed more efficiently.

Growth factors and cytokines: The amniotic membrane is rich in growth factors and cytokines, which are essential for tissue regeneration and repair. These factors promote cell proliferation, angiogenesis (formation of new blood vessels), and collagen synthesis, speeding up the healing process.

Extracellular matrix components: The amniotic membrane provides a scaffold of extracellular matrix components, such as collagen and fibronectin. This scaffold supports cell attachment, migration, and organization, facilitating the regeneration of damaged tissues.

Antibacterial properties: The amniotic membrane exhibits inherent antimicrobial properties. It contains antimicrobial peptides and proteins that help prevent infection at the wound site, creating a favorable environment for healing.

Modulation of immune response: The amniotic membrane modulates the immune response, promoting a balanced and controlled healing process. It helps regulate the activity of immune cells, reducing excessive inflammation and preventing immune-mediated damage to the healing tissue.

By harnessing these properties, the Human Amniotic Membrane Patch accelerates the healing process, improves wound closure, and enhances the overall quality of tissue repair.

#### 3-HOW DOES THE AMNIOTIC MEMBRANE PATCH EXHIBIT ANTIBACTERIAL PROPERTIES?

Antimicrobial peptides: The amniotic membrane contains naturally occurring antimicrobial peptides, which are small proteins that can directly kill or inhibit the growth of bacteria. These peptides have broad-spectrum activity, meaning they are effective against a wide range of bacteria.

Secreted proteins: The amniotic membrane secretes proteins that have antimicrobial properties. These proteins, such as lactoferrin and lysozyme, can disrupt the bacterial cell wall, inhibit bacterial growth, and enhance the body's immune response against bacteria.

Immune modulatory effects: The amniotic membrane has immune-modulating effects, meaning it can regulate the immune response to bacterial infections. It helps promote a balanced immune response, preventing excessive inflammation while maintaining the body's ability to fight off bacteria.

Biofilm disruption: Bacterial biofilms are communities of bacteria that form on surfaces, including wounds. Biofilms can protect bacteria from antibiotics and the immune system, delaying the healing process. The amniotic membrane patch has been shown to disrupt biofilms, making it easier for the body's defenses and antibiotics to eliminate the bacteria.

Barrier function: The amniotic membrane patch acts as a physical barrier, preventing bacteria from entering the wound and causing infection. It creates a protective environment that allows the body's natural healing processes to take place without interference from bacteria.

These antibacterial properties make the amniotic membrane patch effective in reducing the risk of infection and promoting a healthy healing environment.

## **Human Amniotic Membrane Background**

- Amniotic membrane is the inner most layer surrounding the fetus3, that is comprised of various layers.
- The tissue's tensile strength is attributed to its epithelial cell layer and basement membrane.
- Furthermore, amniotic tissue has been characterized in the literature to comprise a rich proteinaceous components like collagen types I, III, IV, V, and VI, and a host of growth factors.

### AMNIOTIC MEMBRANE DIAGRAM

Amniotic fluid

Epithelium Basement membrane Compact layer

Fibroblast layer

Intermediate layer

Reticular layer

Basement membrane Trophoblasts Maternal decidua

### **DUAL LAYER AMNIOTIC MEMBRANE ALLOGRAFT**

## **Tissue Characteristics**

- Dual-layer amniotic membrane.
- Intended for homologous use only. Acts as a sheet scaffold and wound cover, that is a natural bandage shielding wounds from its external environment.
- Minimally processed and packaged. The physical properties of the tissue are maintained relating to its utility to serve as a scaffold or barrier
- Dehydrated, packaged, and terminally sterilized with a 5-year shelf life. Stored at ambient temperature.

## **Configurations**



**Square sizes:** 2x2cm, 4x4cm

Rectangular sizes: 2x3cm, 2x4cm, 4x6cm, 4x8cm

## **DUAL LAYER AMNIOTIC MEMBRANE ALLOGRAFT**

## **Applications**

- Wound Covering
- Venous Stasis Ulcer Covering
- Diabetic Foot Ulcer Covering
- Burn Covering



### **DUAL LAYER AMNIOTIC MEMBRANE ALLOGRAFT**

## **Tissue Processing - Amniotic Membrane Barrier**

- The amniotic membrane is sourced from healthy deliveries of placental tissue with maternal consent.
- Processed using minimally manipulated amniotic membrane in a dual layer composition to retain the amniotic membrane's original relevant characteristics of the placental extracellular matrix (ECM).
- The amniotic membrane's key structural components, specifically the epithelium layer, as well as the basement layer of the placental tissue, are retained to allow the membrane its utility to serve as a sheet scaffold and barrier.
- May adhere to the underlying wound surface as a cover protecting wounds and may help prevent formation of dead space on wounds.
- May prevent infiltration and adhesion of microorganisms to wounds.

# 10 APPLICATIONS /12-WEEK PERIOD









## PATIENT ELIGIBILITY CHECKLIST

- ✓ A wound with no improvement noted for at least 30 days
- ✓ Wound of stage 2 or greater
- ✓ No oral antibiotics within the last 30 days
- ✓ No autoimmune disorders
- ✓ If infection present, must be debrided prior to application
- ✓ Patient has vascular blood flow to the treatment area
- ✓ Meets all provider requirements



# WoundPlus™

Amniotic Membrane for Outpatient Wound Care



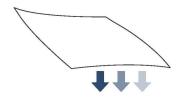


# Treat Your Patients with the Advantage of Natural Tissue

**WoundPlus**<sup>™</sup> is a dehydrated amniotic membrane with a complete BioECM<sup>®</sup> preserved by the HydraTek<sup>®</sup> process, retaining native placental components.

#### WoundPlus™ Product Benefits





- Micro-textured surface for ideal adherence
- FastActing®
- · Amnion-only membrane
- · Thin & versatile
- Omni-directional application
- Room temperature storage



#### **Indication for Use**

WoundPlus<sup>™</sup> may be applied and is intended for use as a wound covering, wrap or barrier, application to partial and full-thickness, acute and chronic wounds.

## The Preserved Source.

Maintains natural properties providing a market-leading allograft transplant.



#### **Allograft Potential**

Retains high levels of native properties and collagens



#### **Immune Privileged**

Placental tissues have been shown to not cause a host rejection

WoundPlus <sup>™</sup>	Size
WP001	1x1cm
WP004	4 sq cm
WP008	8 sq cm
WP016	16 sq cm
WP024	24 sq cm
WP032	32 sq cm
WP064	64 sq cm
WP081	81 sq cm

WoundPlus <sup>™</sup>	Size
WP096	96 sq cm
WP128	128 sq cm
WP160	160 sq cm
WP192	192 sq cm
WP243	243 sq cm
WP324	324 sq cm
WP405	405 sq cm
WP486	486 sq cm

References on file and available upon request. Copyright © 2023 Skye Biologics Holdings, LLC. All rights reserved. MRK 080 Rev C, September 2023



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