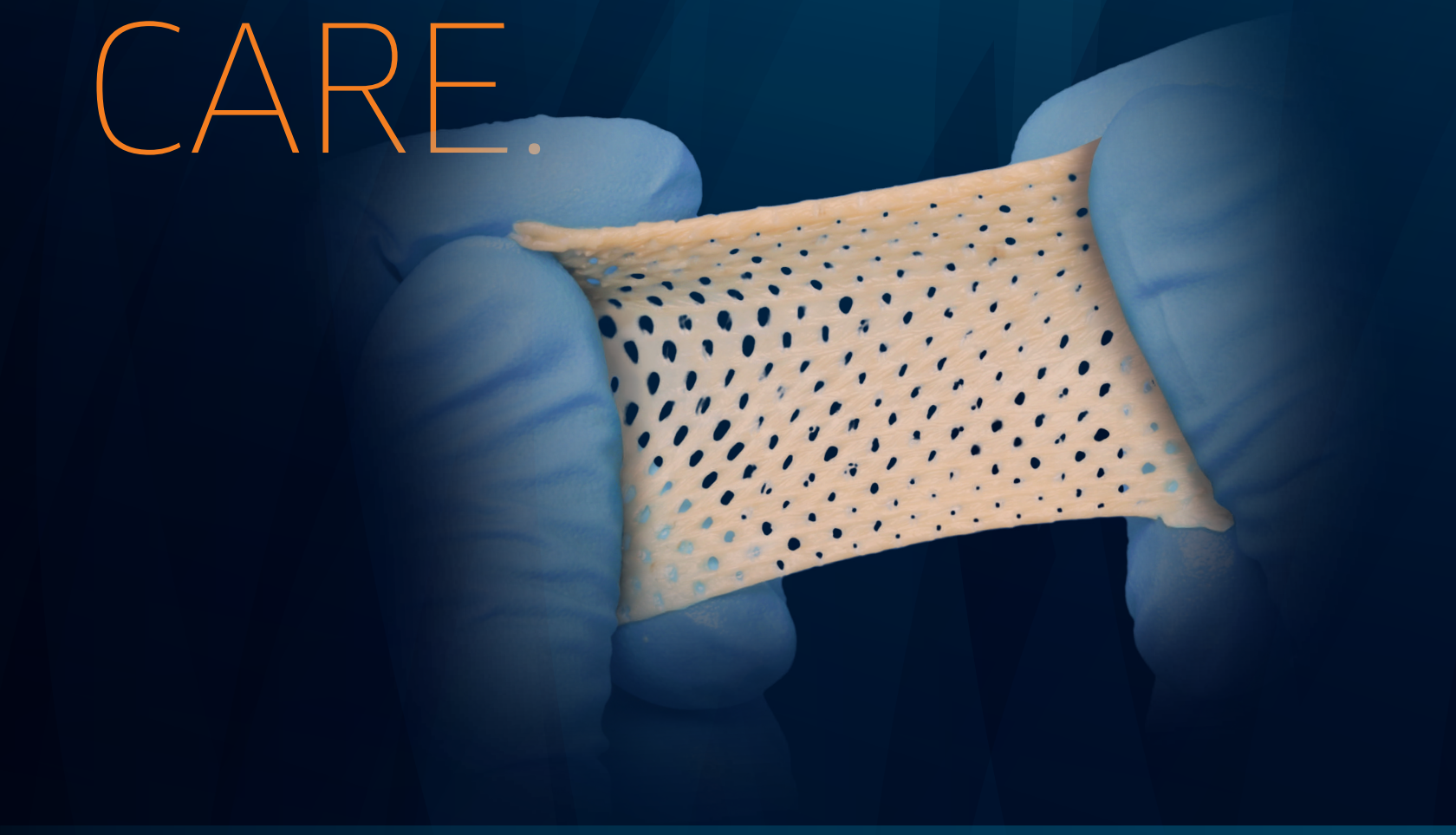
ALLOSKIN™

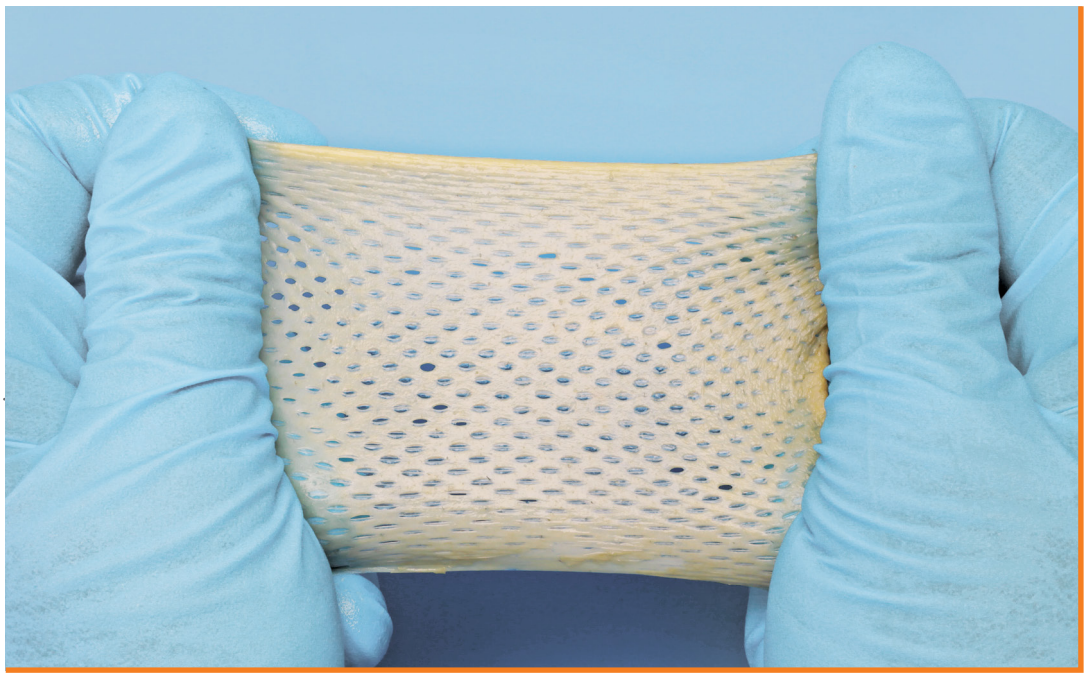
DOING MORE FOR WOUND CARE.



AlloSource™
DOING MORE WITH LIFE

ALLOSKIN™
(HUMAN ALLOGRAFT SKIN)

AlloSkin is a meshed human allograft skin for acute and chronic wound therapy. Comprised of cadaveric epidermis and dermis, skin allografts may mechanically protect the wound and provide biologic factors native to human skin, which may help to stimulate the wound healing process. Subjected to extensive serological and microbiological testing, AlloSkin undergoes a controlled-rate cryopreservation process with the aim of maintaining natural cell morphology and molecules that aid healing.



CLINICAL USES FOR ALLOSKIN

Acute and Chronic Wounds – Clinical success in burn care has led clinicians to use allograft skin to cover non-burn wounds both in acute and chronic wound applications.

- Can be used to cover exposed substructures such as bone, tendon, muscle or nerve[1]
- Commonly used on complex wounds such as **lower extremity and foot ulcers** caused by diabetes, arterial and venous disease, and acute wounds such as burns and dehisced surgical wounds[1,2,3,4,5,6,9]

THE BENEFITS OF USING HUMAN ALLOGRAFT SKIN

Scientific literature supports the fact that human allograft skin may assist in the wound healing response in the stalled wound by[1]:

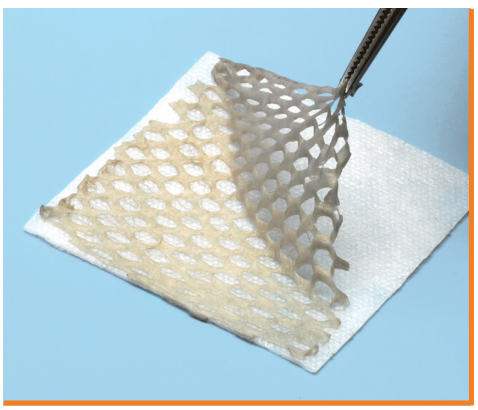
- Stimulating wound infilling with granulation tissue
- Acting as a barrier to bacterial invasion and triggering the immune response to reduce bioburden
- Decreasing water, electrolyte and protein loss
- Preventing desiccation of substructures
- Stimulating neovascularization[9]
- Diminishing pain

"When used adjunctively, allografts consistently show clinical increases in vascularity, decreased bacterial contamination, and stimulation of epithelization."[1]

HOW ALLOSKIN CAN DO MORE FOR YOUR PATIENTS

- Appropriate for wounds of any etiology
- Pliable, stretchable and easy to handle
- Rapid thaw time in normal saline — readily available
- Long shelf life — AlloSkin is cryopreserved and has a 5-year storage life
- Can be used immediately at the clinician's discretion
- Less expensive than other biologically derived grafts, making advanced wound treatment accessible to more patients

1:1 Mesh

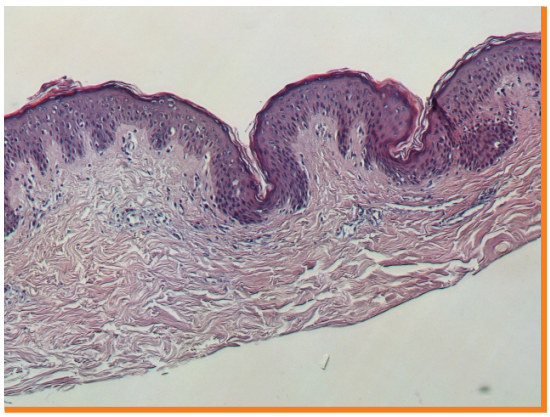


2:1 Mesh

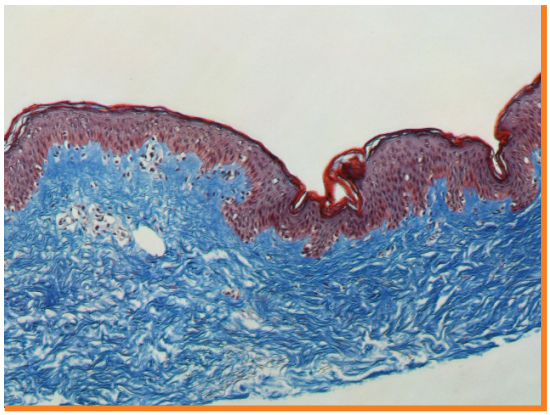
HISTOLOGIC ANALYSIS:
WHAT INTEGUMENTAL COMPONENTS ARE PRESENT IN ALLOSKIN?

To verify the cellular and tissue integrity of our cryopreserved skin allografts (AlloSkin), we undertook a histologic study* to identify collagen, elastin and extracellular matrix within the tissue. It is known that wound healing benefits from collagen and elastin, and extracellular matrix aids the migration of keratinocytes into the wound.[1,3,5,7,8]

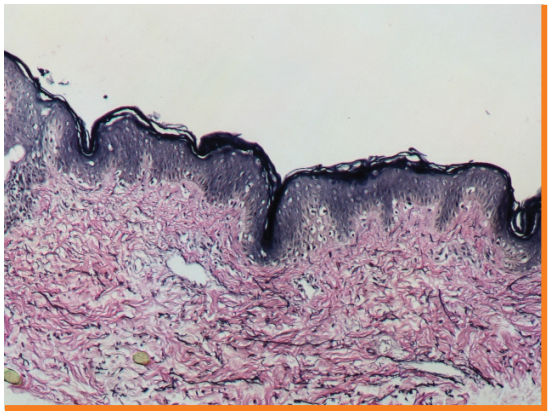
This histologic study clearly demonstrates the presence of collagen bundles, elastin fibers, intact cellular structure, and an intact epidermal-dermal interface in AlloSkin grafts.



H&E STAIN The blue stain indicates the presence of cell nuclei and the pink stains collagen, elastic fibers, cytoplasm, and reticular fibers. The section shows no delamination at the epidermal and dermal interface. The extracellular matrix shows integrity with mild to no degeneration.



MASSON TRICHROME STAIN Nuclei stain black showing cellularity, cytoplasm stains pink and collagen fibers stain blue. This section shows tight collagen bundles, indicating extracellular matrix integrity is maintained; no tissue degeneration is observed.



ELASTIN STAIN elucidates the presence of elastin fibers: nuclei stain black, showing the presence of whole cells, and elastin fibers stain blue/black. The section shows the presence of elastin fibers.

COLLAGEN TYPES PRESENT IN ALLOSKIN

Collagen has several important functions in wound healing including:[10,11]

- Collagen fibers guide fibroblasts that migrate along a connective tissue matrix
- Collagen fibers attract fibrogenic cells that are essential to wound healing

All major pertinent collagen types were identified.

*6mm biopsy punches were taken from previously cryopreserved and thawed skin allografts (per AlloSkin Instructions for Use) and fixed with formalin. The skin was then processed, embedded, sectioned, and stained with Hematoxylin and Eosin (H&E), Masson Trichrome, and Elastin stains. The slides were evaluated for the following parameters: epidermal and dermal separation, and collagen and elastin composition (indicative of overall structural integrity of the tissue), and photographed at 10x magnification.

REFERENCES:

[1] Snyder RJ. Treatment of nonhealing ulcers with allografts. Clinics in Dermatology 2005; 23:388– 395.

[2] Kirsner RS, Eaglstein WH, Kerdel FA. Split-thickness skin grafting for lower extremity ulcerations. Dermatol Surg 1997;23:85-91.

[3] Leigh IM, Purkis PE, Navsaria HA, Phillips TJ. Treatment of chronic venous ulcers with sheets of cultured allogenic keratinocytes. Br J Dermatol 1987;117:591-597.

[4] Moerman E, Middelkoop E, Mackie D, Groenevelt F. The temporary use of allograft for complicated wounds in plastic surgery. Burns 2002;28:S13-S15.

[5] Morris PJ, Bondoc C, Burke JF. The use of frequently changed skin allografts to promote healing in the non-healing infected ulcer. Surgery 1966;66:13.

[6] Snyder RJ, Hanft JR (interviewed by Sigal BD). Cadaveric allografts and complex chronic wounds: A viable alternative to autografts and other bio-engineered tissues. Podiatry Mgt 2008;Nov-Dec: 213-215.

[7] Snyder RJ, Simonson DA. Cadaveric allograft as adjunct therapy for nonhealing ulcers. J of Foot & Ankle Surg 1999;38,(2):93-101.

[8] Falabella, AF and Falanga V. Wound Healing. The Biology of the Skin. Parthenon Publishing 2001,Freinkel RK, Woodley DT editors: pages 281-297,

[9] Spence RJ, Wong L. The enhancement of wound healing with human skin allograft. Surg Clinics of North America 1997; 77 (3):731-745.

[10] SingerAJ, Clark RA. Cutaneous wound healing. N Engl J Med 1999; 341 (10): 738-746

[11] Ruszczak Z. Effect of collagen matrices on dermal wound healing. Adv Drug Deliv Rev 2003; 55(12):1595-611.

AlloSource, a non-profit organization,

offers more than 200 types of precise bone, skin, soft-tissue and custom-machined allografts for use in an array of life-saving and life-enhancing medical procedures. Committed to honoring the gift of donation, the company delivers unparalleled expertise and customer service to its network of surgeons, partners and the country's most reputable organ procurement organizations.

- Significant experience in developing and managing the processing techniques for fresh tissue grafts safely and without destroying live cells

- Leader in live cell tissue processing including fresh skin allografts for severe burns, fresh cartilage tissue for joint repair and adult mesenchymal stem cells

AlloSkin Ordering:
800. 557. 3587 or Fax 720. 873. 0207

Part Code	Size	Meshed
5125-61052	5 cm x 5 cm / 25 cm^2	1:1
5180-61052	8 cm x 10 cm / 80 cm^2	1:1
51120-61052	8 cm x 15 cm / 120 cm^2	1:1
5225-61052	5 cm x 5 cm / 25 cm^2	2:1
5280-61052	8 cm x 10 cm / 80 cm^2	2:1
52120-61052	8 cm x 15 cm / 120 cm^2	2:1

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