

DermaSpan™ Acellular Dermal Matrix

Wound Coverage Technique

Surgical Protocol by
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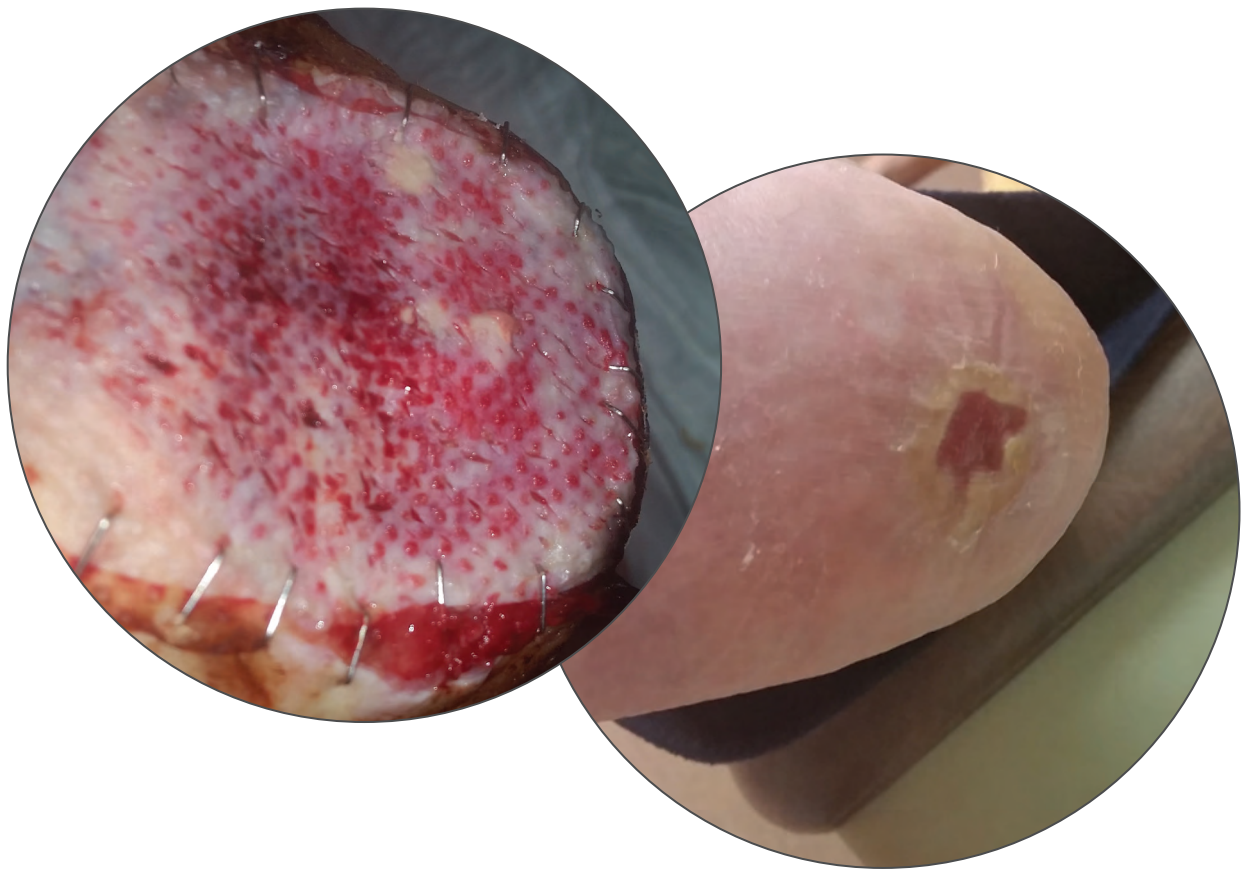


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Figure 1a
Predebridement



Figure 1b
Postdebridement

Debridement

The goal of debridement is to create a fresh wound base, continuing until reaching a fresh granular skin base. A fresh granular skin base is important in the healing process and to provide an interface for allograft incorporation. When performing debridement, whether by scalpel, curettage, or specialized mechanical device, make sure that the wound bed is smooth, creating an even surface for allograft contact.

It is important to resect the edges of the wound until fresh, granular skin is reached. This may aid in the incorporation of the allograft at the periphery as well as at the wound base.

Determining Allograft Size

NOTE: Determine the size of the allograft *after* debridement since the removal of the necrotic edges can expand the surface area by several millimeters as seen in Figures 1a and 1b.

The appropriate allograft size may be determined by using a sterile ruler to measuring the length and width of the wound to estimate the total surface area to be covered. Excess allograft can be trimmed later in the procedure.

Rehydration Procedure

Rehydrate an appropriate-sized DermaSpan Meshed Acellular Dermal Matrix per the rehydration instructions in the Instructions for Use.



Allograft Application

- 1) Apply the DermaSpan Meshed ACD allograft to the debrided wound bed ensuring the dermal (shiny) side is in contact with the wound. When applying to the wound bed, bleeding should be present.

Hint: DermaSpan ACD has two distinct sides: a basement membrane and a dermal side. The basement membrane appears dull and repels blood. The dermal side appears shiny and absorbs blood. The dermal side is facing down when the 2-3 mm orientation guide slit is in the upper right corner (Figure 2). The allograft should be applied with the dermal side down against the wound (slit in upper right corner).

- 2) Place the allograft evenly over the wound site. If there is an overhang of tissue, trim the superfluous edges.
- 3) Staple or suture the allograft on the periphery (Figure 3) of the wound. The fixation technique should allow the allograft to remain evenly in contact with the wound.



Figure 4
In some circumstances, a technique known as “Pie Crusting” is sometimes utilized to help with drainage



Figure 5

Pie Crusting (Optional)

If the surgeon determines additional draining may be required, prepare a slit in the graft with the scalpel much like you would to vent a pie crust (Figure 4). Another option is to extend one of the meshed holes of the graft.

Author’s Post Op Protocol

Dressing techniques vary according to surgeon preference. Generally, a warm, moist environment protected from external contamination is conducive to wound healing. Some common dressings are listed below:

- **Mineral oil:** can be used as an adjunct to lend moisture to the wound bed and allograft.
- **A sterile non-adhesive dressing:** can be used as a contact layer between the allograft and dressings to help prevent pull-off damage when removing dry sterile dressings.
- **Saline soaked gauze:** is an option to cover the allograft and provide moisture.
- **Negative pressure dressing:** may assist with incorporation of the allograft.



Figure 6

Negative Pressure Option

The author's preference is to use negative pressure, AKA, a vacuum closure device.

Apply a non-adherent contact layer to cover the graft. Cut foam to size cover the wound area and then make a tail portion to place near the arch of the foot, preferably away from a bony prominence. Use plastic drapery from the vacuum closure device and drape around graft.

Next, apply suction to the tail portion. Set suction pressure at 75 mmhg or less to help avoid necrosis of the allograft.

Apply dry sterile dressing to the foot. Non-weight bearing is recommended until site is healed to doctor's satisfaction.

Appendix – Possible Wound Appearances



Figure 7



Figure 8

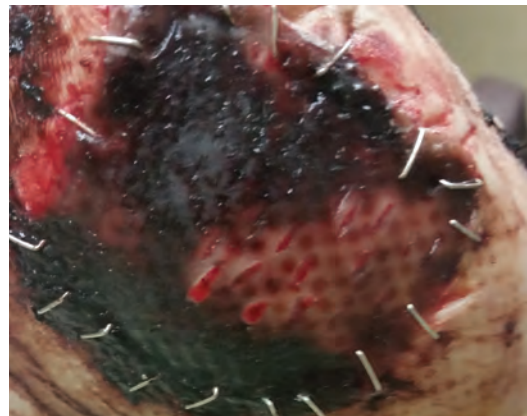


Figure 9

Clinical Observations

Incorporation can give the appearance of “vascular budding” when red tissue passes through the meshed portions within the allograft (Figure 7).

DermaSpan ACD allograft may have several appearances:

- **Yellowed allograft:** may indicate biofilm, infection, or color change seen in regular incorporation. If vascular budding is seen along with some yellowing, there may be a chance of incorporation of the allograft.
- **Peripheral Eschar:** may occur on the periphery of allografts in sites where the allograft is already incorporated (Figure 8).
- **More than peripheral tissue is eschar:** the site may need to be evaluated for allograft failure or necrosis (Figure 9).



Figure 10



Figure 11

Clinical Observations (cont.)

- **Black appearance:** wound may look black and necrotic with hard, almost crusty eschar. If eschar is superficial, then the allograft may act like a normal scab and heal (Figure 10). With a thicker eschar, you may have to slightly lift the edges to look for healing, granulated tissue.
- **Wet looking allograft:** The allograft can have a wet and fibrotic appearance (Figure 11). Dressings may be changed every other day and the wound monitored for changes in exudate.

Ordering Information

DermaSpan Acellular Dermal Matrix

Part Number	Thickness	Size
48-0400404M	0.4 mm – 0.8 mm	4 cm x 4 cm (meshed)
48-0400408M	0.4 mm – 0.8 mm	4 cm x 8 cm (meshed)
48-0401212	0.4 mm – 1.1 mm	12 cm x 12 cm
48-0700404	0.5 mm – 0.9 mm	4 cm x 4 cm
48-0700408	0.5 mm – 0.9 mm	4 cm x 8 cm
48-1100407	0.8 mm – 1.4 mm	4 cm x 7 cm
48-1100510	0.8 mm – 1.4 mm	5 cm x 10 cm
48-1100505	0.8 mm – 1.4 mm	5 cm x 5 cm
48-0900307	0.9 mm – 1.99 mm	3 cm x 7 cm
48-0900407	0.9 mm – 1.99 mm	4 cm x 7 cm
48-0900412	0.9 mm – 1.99 mm	4 cm x 12 cm
48-0900416	0.9 mm – 1.99 mm	4 cm x 16 cm
48-0900510	0.9 mm – 1.99 mm	5 cm x 10 cm
48-0900612	0.9 mm – 1.99 mm	6 cm x 12 cm
48-0900616	0.9 mm – 1.99 mm	6 cm x 16 cm
48-0900812	0.9 mm – 1.99 mm	8 cm x 12 cm
48-0900816	0.9 mm – 1.99 mm	8 cm x 16 cm
48-0901212	0.9 mm – 1.99 mm	12 cm x 12 cm
48-0901620	0.9 mm – 1.99 mm	16 cm x 20 cm
48-2000307	2.0 mm – 3.5 mm	3 cm x 7 cm
48-2000407	2.0 mm – 3.5 mm	4 cm x 7 cm
48-2000412	2.0 mm – 3.5 mm	4 cm x 12 cm
48-2000416	2.0 mm – 3.5 mm	4 cm x 16 cm
48-2000510	2.0 mm – 3.5 mm	5 cm x 10 cm
48-2000612	2.0 mm – 3.5 mm	6 cm x 12 cm
48-2000616	2.0 mm – 3.5 mm	6 cm x 16 cm
48-2000812	2.0 mm – 3.5 mm	8 cm x 12 cm
48-2000816	2.0 mm – 3.5 mm	8 cm x 16 cm
48-2001212	2.0 mm – 3.5 mm	12 cm x 12 cm
48-2001620	2.0 mm – 3.5 mm	16 cm x 20 cm
48-2800307	2.8 mm – 3.5 mm	3 cm x 7 cm
48-2800407	2.8 mm – 3.5 mm	4 cm x 7 cm



Meshing of Standard (non-meshed) Allograft (Optional)

In some applications, the surgeon may choose to mesh a standard (non-meshed) allograft prior to application. This should always be done after the rehydrating process.

The authors preference is to place the graft on a 1:1.5 carrier for use with a mesher. Use sterile saline to pre-wash the mesher, <25 ml.

Indications and Contraindications

INDICATIONS FOR USE

DermaSpan ACD is to be used for the repair or replacement of damaged or inadequate integumental tissue or for other homologous uses of human integument. DermaSpan Meshed ACD is to be used as a covering for skin wounds (e.g. burns, ulcers) and should not be used in load-bearing applications. The standard allograft (non-meshed) may also be used for supplemental support, protection, reinforcement or covering of tendon or ligament, but is not intended to bear the load. Each package of DermaSpan ACD is intended for use in one patient on a single occasion by a licensed physician, surgeon, dentist or podiatrist.

CONTRAINDICATIONS

Use of DermaSpan ACD in patients exhibiting autoimmune connective tissue disease is not recommended. DermaSpan should not be used in patients with sensitivities to processing agents (see WARNINGS).

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0699.1-US-en-REV1216