

# Clinical Comparison: Amalgatome® SD vs. Conventional Dermatomes

## STUDY PURPOSE

To determine the efficiency and effectiveness of two types of dermatomes, three porcine proof-of-concept studies were conducted. The studies used the Exsurco Medical Amalgatome® SD with a Rotating Excision Ring™ blade and conventional dermatomes to harvest split skin grafts and excision of necrosis.

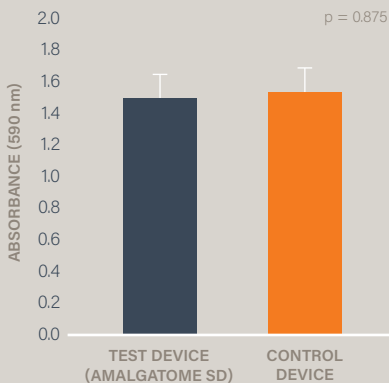
## HOW WE MEASURED SUCCESS

The following outcomes of the Amalgatome SD versus conventional dermatomes are reported:

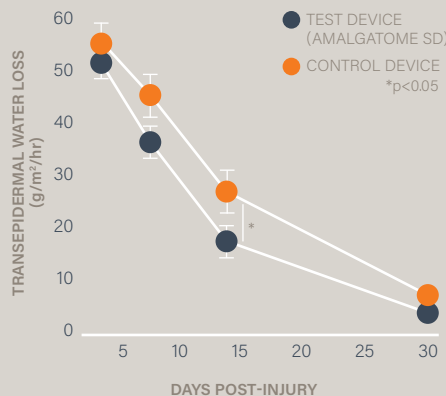
- Viability of grafts (*Figure I*)
- Thickness of excised tissue (graft, necrosis) and consistency of thickness (calibrated microscope)
- Time to granulation and reepithelialization (*Figure II*)
- Donor site properties, including erythema, color, laxity, elasticity, and stiffness (*Figure III*)
- Device ease of use



**FIGURE I**  
GRAFT VIABILITY, OVERALL AVERAGES

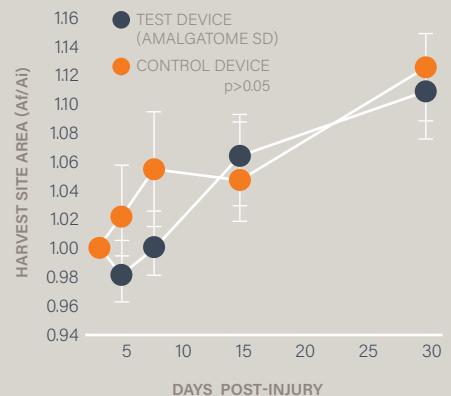


**FIGURE II**  
TRANSEPIDERMAL WATER LOSS AS A FUNCTION OF REEPITHELIALIZATION



\* Note that the graft thickness is less for test device than for control

**FIGURE III**  
DONOR SITE CONTRACTION



## STUDY RESULTS



The results of the animal study demonstrated that the Amalgatome® SD provided:

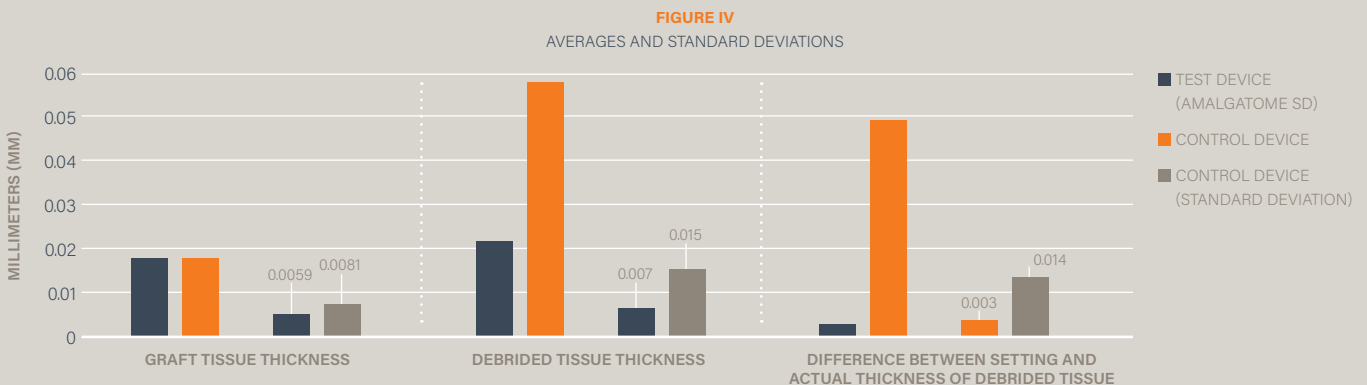
- **Superior graft quality: more consistent thickness (calibrated microscope) and potentially better results for the donor and recipient site** (*Figure IV*, standard deviations)
- **More consistent thickness for excised necrosis (calibrated microscope): easier to avoid (deep) excision into viable tissue** (*Figure IV*, standard deviations)
- **A better relationship between the set depth of excision and actual depth** (*Figure IV*, standard deviations)
- **Better ease of use with regard to:**
  - Overall device size
  - Device assembly
  - Device accuracy
  - Potential less blood loss during excision of necrosis

## STUDY CONCLUSION

The Exsurco Medical Amalgatome SD Skin Grafting and Wound Debridement device was superior when evaluating:

1. **Consistency of the thickness of excised tissues – important for the wound healing process**
2. **Maneuverability (important for the clinician)**
3. **Several facets of ease of use**

The conventional dermatomes did not outperform the Amalgatome SD on any of the test parameters.



## REFERENCE

Hermans, MHE. Report on three porcine proof-of-concept studies: comparing a dermatome with a rotating excision ring with conventional dermatomes for the harvesting of split skin grafts and excision of necrosis. *Complete study on file at Exsurco Medical, Inc.*



## CONTACT US

10804 Green Rd.  
Wakeman, OH 44889  
Phone: 800-243-6049  
Fax: 440-328-4535

**Sales:** sales@exsurco.com  
**Information:** info@exsurco.com  
**Service and Support:** support@exsurco.com  
**exsurco.com**

Amalgatome and Exsurco are registered trademarks of Exsurco Medical, Inc.  
©2018 Exsurco Medical, Inc. All rights reserved.

PN: SD024, Rev. 1 Date Issued: April 2018