



# STUDYBOOK

## EMFUSION®





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## Calcium Gradient Restoration

Impact of DYNAMiQ Technology on Epidermal Calcium Gradient and Nutrients Absorption - Animal Histology Study

Jan Bernardy, DVM, PhD<sup>1</sup>; Rea Jarosova, MSc, PhD<sup>1</sup>; Natalie Kralova, MA<sup>1</sup>; Karolina Hlavova, MA, PhD<sup>1</sup>

1. Veterinary Research Institute, Brno, CZ

### Highlights

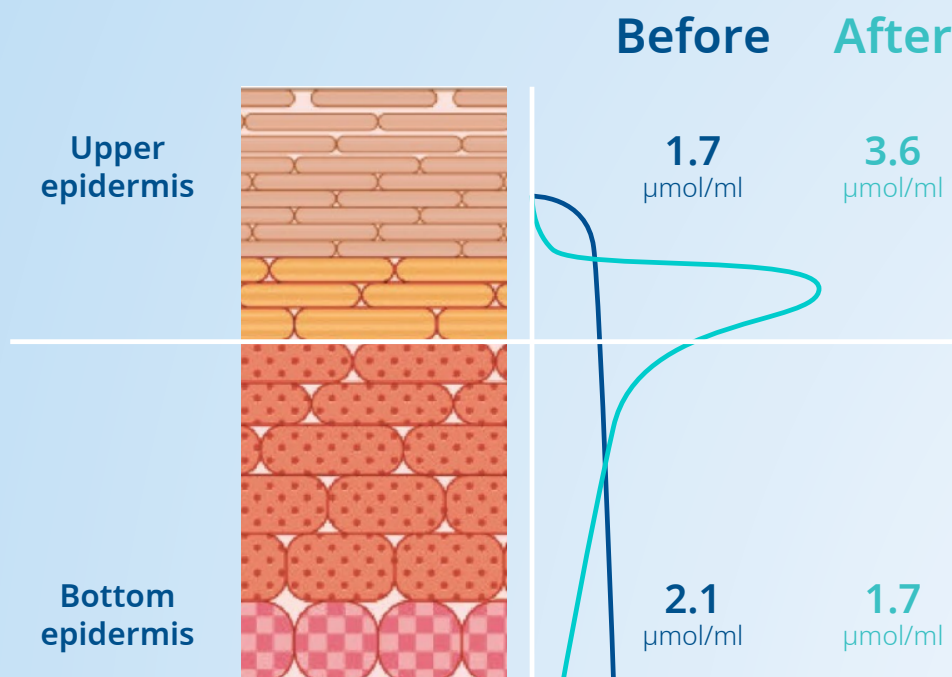
- Three large white pigs (sows, 40-60kg) were divided into 2 groups:
  - Active (n=2): 1 procedure with DYNAMiQ on
  - Control (n=1): 1 procedure with DYNAMiQ off
- Evaluation of active ingredient absorption delivered during the EMFUSION procedure
- 2.6 times higher vitamin A absorption in the active group at 24 hours post-procedure
- Evaluation of epidermal calcium concentrations across upper and lower layers
- 114% Ca<sup>2+</sup> increase in the upper layer and 17% decrease in the lower layer indicates calcium gradient restoration at 7 days post-procedure

## 2.6x

Higher nutrients absorption  
with DYNAMiQ ON

## Ca<sup>2+</sup>

Gradient  
restoration



The change in calcium concentration in the upper and lower epidermis indicates the potential of the DYNAMiQ procedure to restore calcium gradient

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## Impurity Removal Analysis

Analysis of Collected Waste Liquid After the DYNAMiQ Procedure - Case Study  
Mariya Genova, MD

Individual practice for specialized medical dermatology care Mariya Genova MD, Plovdiv, BG

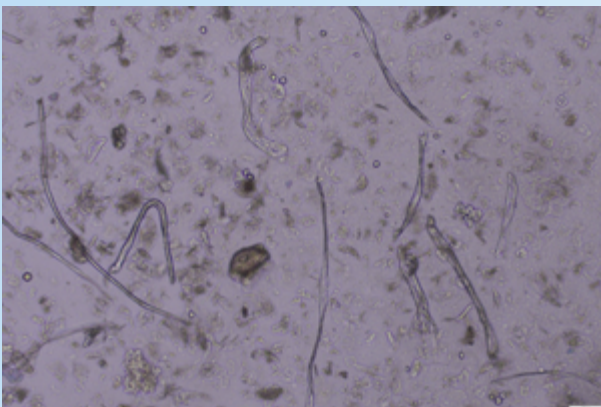
### Highlights

- 12 subjects (22-51 years old) split into 3 groups received one 30-minute procedure using:
  - EMFUSION with DYNAMiQ on (4 subjects)
  - EMFUSION with DYNAMiQ off (4 subjects)
  - Leading exfoliation device (4 subjects)
- Extracted waste fluid was examined by microscopy, and upon desiccation, the weight of dry matter was used to quantify the amount of removed impurities
- 2.7 times more impurities were removed by EMFUSION with DYNAMiQ ON than with leading exfoliation device

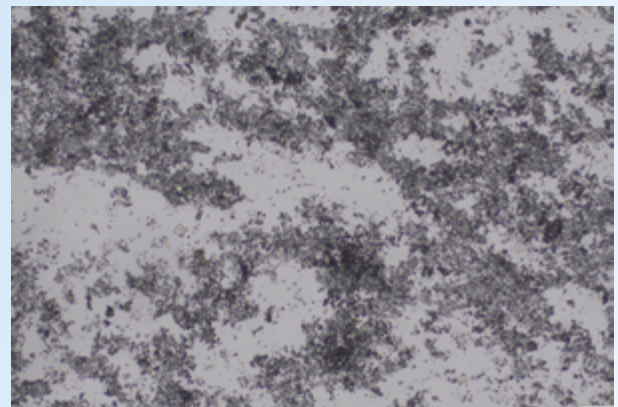
# 2.7x

**More impurities removed  
by EMFUSION with DYNAMiQ ON**

**Leading Exfoliation Device**



**EMFUSION with DYNAMiQ ON**



EMFUSION with DYNAMiQ ON demonstrated superior efficacy, the leading exfoliation device and EMFUSION with DYNAMiQ OFF removed comparable amounts of impurities

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## Skin Barrier Improvement

Evaluation of Changes in Epidermal Water Evaporation After the Application of DYNAMiQ Technology

Klaus Fritz, MD<sup>1</sup>, Mariya Genova, MD<sup>2</sup>, Carmen Salavastru, MD<sup>3,4</sup>

1. Dermatology and Laser Center, Landau in der Pfalz, Germany
2. Individual practice for specialized medical dermatology care Mariya Genova MD, Plovdiv, BG
3. Carol Davila University, Bucharest, Romania
4. Department of Dermatology, Colentina Clinical Hospital, Bucharest, Romania

### Highlights

- 24 subjects (26-64 years old) received one 30-minute procedure
- Evaluation of transepidermal water loss (TEWL) at baseline, after the procedure, and 7 days after
- Baseline water loss was 1.8 times higher than 7 days post-procedure demonstrating that skin retains approximately 80% more moisture

# 80.3%

Skin barrier improvement

Baseline



7 days after procedure



A 33-year-old female at baseline and 7 days after the EMFUSION procedure



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## Skin Quality Improvement

Improvement in Skin Quality after the DYNAMiQ Procedure - Preliminary Data

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2. Dermatologie und Ästhetische Medizin Dr. Med. Berenike Lampert, Frankfurt, Germany  
3. Clinical Research and Development, ICA Aesthetic Navigation GmbH, Frankfurt, Germany

### Highlights

- 20 subjects received four 30-minute procedures
- Photographs were taken at baseline, after the procedure, and 7 days after
- Photo analysis of Skin Quality Index by Caarisma software

# 20.8%

Increase in  
Skin Quality Index

Baseline



After 2<sup>nd</sup> procedure



A 65-year-old female showing an improvement in skin quality, specifically skin tone evenness

