

# Mechanical Debridement - New Ways?

Stefan Krasnik  
Peter Kurz

„Mechanical debridement is the most common debridement method in the USA and has already been used for decades“ [1]

## Mechanical Debridement in the EWMA Position Document

Ever since the EWMA position document on debridement was published in 2014, there has existed a comprehensive, high-quality review on the subject of debridement. As regards the area of mechanical debridement, this publication currently describes 4 different procedures.

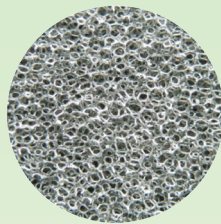
- ‚Wet-to-dry‘ debridement with gauze
- Paraffin tulle
- Gauze
- Monofilament fibre pads [1]

Within the scope of the literature analysis, mechanical debridement in general, wet-to-dry debridement, paraffin tulle and gauze were evaluated as particularly painful and thus as generally critical. However, the use of monofilament fibre was described as an almost painless therapy that does not cause any damage, neither to healthy tissue. [2]

## New Ways?

In 2014, however, products for mechanical debridement were brought to market that do not match any of these categories. These are foams with coarse pore structure intended to facilitate rather painless and highly effective debridement. This gives rise to the question regarding the extent to which the cleansing capacity can be compared to a monofilament fibre.

Foam at 15-fold magnification [3]



## Design

Comparing the cleansing capacity with different wounds is always a difficult challenge. In order to achieve best possible comparability, the foam with open pores and the monofilament fibre were compared on dehiscent wounds. The foam used was Moltoplast ‚Momosan® Woundcleaner™‘ black; the monofilament fibre was ‚Debrisoft®‘ from Lohmann & Rauscher. The products were provided by the manufacturers.

## Results

### Pain

Both debridement variants were tolerated by the patient and not perceived as painful.

### Cleansing Period

According to the user statements, debridement in itself took 1-2 minutes in each case. There is no difference between the procedures.

### Cost Comparison

In Switzerland, both tested products are available from pharmacies [5] at the following price:

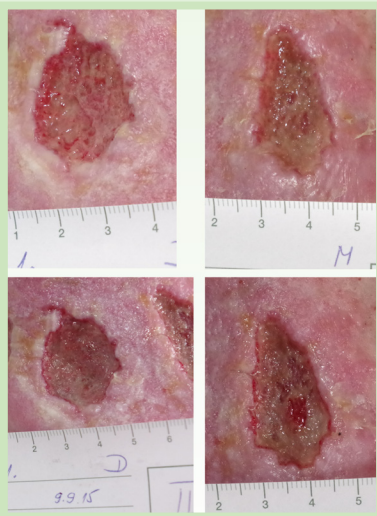
- Debrisoft® 10x10 cm, 5 units, CHF 60.50 including VAT  
CHF 12.10 per debridement
- Momosan® Woundcleaner™ black 5x5x2 cm, 30 units, CHF 141 including VAT  
CHF 4.7 per debridement

## Summary

The present case study could reveal a comparable cleansing capacity with equally low cleansing pain between the monofilament fibre and foam. Due to the low cost of material, the foam resulted in lower total treatment costs.

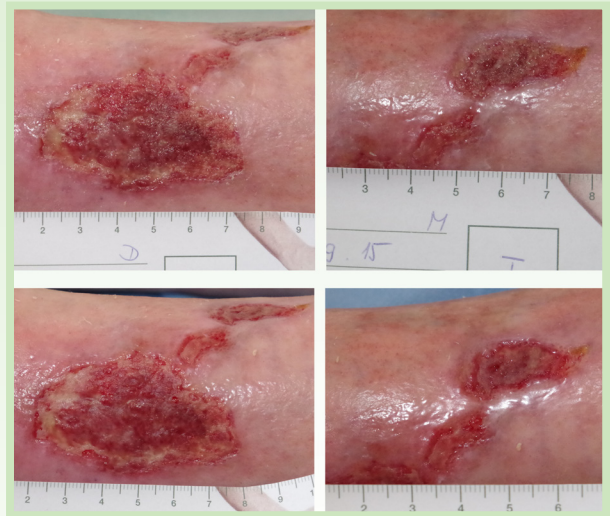
### CASE A: male, born in 1941 Multiple venous leg ulcers [4]

Monofilament fibre      Foam



### CASE B: female, born in 1935 Venous leg ulcer after trauma [4]

Monofilament fibre      Foam



The authors would like to express their thanks to Moltoplast for their kind support.

[1] Strohal, R., Apelqvist, J., Dissemmond, J. et al. EWMA Document: Debridement. Journal of Wound Care. 2013; 22 (Suppl. 1): 1–52  
[2] Bahr, S., Mustafi, N., Häsg, P. et al.: Clinical efficacy of a new monofilament fibre-containing wound debridement product. Journal of Wound Care. 2011; 20, 242–248  
[3] Picture provided by Moltoplast GmbH, Egger Lienz Strasse 130 A-6020 Innsbruck  
[4] Photos provided by WPM Wund Pflege Management GmbH, Professor Knesl Platz 11, A 2222 Bad Pirwarth, photos from August/September 2015  
[5] Prices enquired on 9 September 2015 at Amavita Apotheke Riehen (pharmacy), GaleniCare AG Webergässchen 6. CH 4125 Riehen