

Söring UAW has an installed base in more than 30 countries. Its efficacy and safety have been proven in various clinical initiatives. The summary below provides an extract of key studies on Söring UAW:

Reference	Key findings
<p><b>Crone, S, Garde, C, Bjarnsholt, T, Alhede, M:</b>  <b>A novel in vitro wound biofilm model used to evaluate low-frequency ultrasonic-assisted wound debridement.</b></p> <p><b>Journal of Wound Care 2015</b></p> <p><i>In-vitro study conducted at Costerton Biofilm Center, Copenhagen, Denmark (interdisciplinary research center exploring the field of chronic bacterial infections)</i></p>	<ul style="list-style-type: none"> <li>• Application of 10 seconds of moderate-intensity UAW could effectively disrupt semi-solid biofilms in vitro. This treatment only had a small effect on the cell viability.</li> <li>• Significant improvement in reducing the number of viable bacteria when applying UAW before administration of a polyhexamethylene biguanide (PHMB) solution.</li> <li>• Applying UAW in the presence of PHMB further improved the efficacy.</li> <li>• Combining UAW with a PHMB containing antiseptic has potential as an anti-biofilm strategy in wound care.</li> </ul>
<p><b>Herberger K, Franzke N, Blome C, Kirsten N, Augustin M:</b>  <b>Efficacy, tolerability and patient benefit of ultrasound-assisted wound treatment versus surgical debridement: a randomized clinical study.</b></p> <p><b>Dermatology 2011</b></p> <p><i>Monocentric prospective randomized-controlled clinical study conducted at University Medical Center Hamburg-Eppendorf (UKE), Hamburg, Germany</i></p>	<ul style="list-style-type: none"> <li>• UAW debridement of venous leg ulcers displays the same high efficacy, a comparable patient benefit and improved quality of life when compared to gold standard i.e. surgical wound debridement.</li> <li>• Both procedures are equally suitable for highly beneficial guideline-based treatment of chronic wounds.</li> <li>• UAW is a simple time-saving alternative to surgical wound cleansing with a favorable risk profile.</li> <li>• Delegation of the treatment to trained medical personnel is conceivable because of the simplicity of the procedure. This may reduce direct costs for staff.</li> <li>• UAW enjoys high patient acceptance and can easily be performed on an outpatient basis.</li> </ul>
<p><b>Lázaro-Martínez JL, García-Álvarez Y, Aragón-Sánchez J, García-Morales E, Molines-Barroso R, Álvaro-Afonso FJ:</b>  <b>Preliminary case series results evaluating Ultrasonic-Assisted Wound Debridement (UAW) for treatment of complicated diabetic foot ulcers (DFU).</b></p> <p><b>Poster presentation, ISDF conference, May 20-23, 2015; The Hague, Netherlands</b></p> <p><i>Pilot study with DFU patients conducted at Diabetic Foot Unit, University Podiatry Clinic, Complutense University, Madrid, Spain</i></p>	<ul style="list-style-type: none"> <li>• Sequential wound debridement with UAW used in combination with a super-oxidized antiseptic solution resulted in safe and effective wound cleansing, removal of biofilms and significant reduction of bacterial presence of complicated Diabetic Foot Ulcers (DFU) thus controlling wound infection.</li> <li>• The wound bed of UAW debrided DFU showed fast granulation and kick-started healing of these wounds.</li> </ul>



<p><b>Lázaro-Martínez JL, Álvaro-Afonso FJ, García-Álvarez Y, García-Morales E, Sanz-Corbalán I, Tardáguila-García A:</b>  <b>Improved Wound Conditions and Reduced Bacterial Load as a Result of Sequential Low-Frequency Ultrasound Wound Debridement in Neuroischemic Diabetic Foot Ulcer.</b></p> <p><b>Poster presentation, SAWC Spring conference, April 13-17, 2016; Atlanta, US</b></p> <p><i>Selected results derived from a monocentric, controlled clinical study conducted at Diabetic Foot Unit, University Podiatry Clinic, Complutense University, Madrid, Spain</i></p>	<ul style="list-style-type: none"> <li>• <b>Sequential wound debridement with UAW:</b> <ul style="list-style-type: none"> <li>- Led to significant reduction of bacterial load in tissue samples, not only right after debridement but also during the complete period of treatment in a cumulative way.</li> <li>- Improves wound conditions which can be associated with a decreased bacterial load detected in tissue samples.</li> <li>- Appears to prevent the reformation of biofilms by disrupting the bacterial communities and avoiding spread of bacteria and infection.</li> <li>- Could reduce the probability of bacteria to develop resistance because overuse of antimicrobials and antibiotics can be avoided.</li> </ul> </li> <li>• Measured effects of UAW debridement are independent to the bacterial species, acting in the same way against every type of bacteria independently of whether there is presence of resistant bacteria on the wounds or not.</li> <li>• Kick-starts healing in DFUs showing improved granulation as a result of changing the wound environment to healing friendly conditions.</li> </ul>
<p><b>Lázaro-Martínez JL, Álvaro-Afonso FJ, García-Morales E, García-Álvarez Y, Molines-Barroso R, Sanz-Corbalán I:</b>  <b>Clinical and microbiological outcomes after sequential low-frequency ultrasound wound debridement of neuroischemic diabetic foot ulcers</b></p> <p><b>Oral presentation, DFSG conference, September 09-11, 2016; Stuttgart, Germany</b></p> <p><i>Monocentric, controlled clinical study conducted at Diabetic Foot Unit, University Podiatry Clinic, Complutense University, Madrid, Spain</i></p>	<ul style="list-style-type: none"> <li>• Sequential wound debridement of neuroischemic diabetic foot ulcers with UAW used in combination with a super-oxidized solution reduces bacterial load significantly and improves wound conditions</li> <li>• Measured effects of significant bacterial load reduction are independent to the bacterial species, acting in the same way against every type of bacteria, including resistant bacteria strains</li> <li>• Sequential wound debridement with UAW can avoid the use of antimicrobials and antibiotics and therefore reduce the probability of bacteria to develop resistance</li> </ul>
<p><b>Yarets Y, Rubanov L, Novikova I, Shevchenko N:</b>  <b>The Biofilm-forming capacity of staphylococcus aureus from chronic wounds can be useful for determining Wound-Bed Preparation methods.</b></p> <p><b>EWMA Journal 2013 Vol 13 No 1</b></p> <p><i>Comparative analysis with ulcers of mixed etiologies prior skin grafting, conducted at Clinical Laboratory Diagnostic Department, Gomel State Medical University (Gomel, Belarus). Staphylococcus aureus was isolated from chronic wounds to investigate effects on biofilms in vitro.</i></p>	<ul style="list-style-type: none"> <li>• There is a change in the dynamics of biofilm formation in Staphylococcus aureus bacteria from wounds debrided with UAW used for wound bed preparation before skin grafting.</li> </ul>



<p><b>Yarets Y, Rubanov L:</b>  <b>Clinical Experiences with Ultrasonic-Assisted Wound Debridement (UAW) used for wound bed preparation before skin grafting.</b></p> <p><b>Free Paper Session Infection and Antimicrobials, EWMA Conference, May 14, 2015</b></p> <p><i>Follow-up comparative analysis on 140 chronic wounds to evaluate efficacy of one or two UAW debridement sessions used for wound bed preparation prior to skin grafting and its effect on skin graft take rates in a practical clinical setting</i></p>	<ul style="list-style-type: none"> <li>• There is a change in the dynamics of biofilm formation of biofilm forming bacteria like <i>Pseudomonas aeruginosa</i> and <i>Staphylococcus aureus</i> due to UAW wound debridement.</li> <li>• In colonized wounds, wound debridement applying 2 UAW sessions prior to skin grafting increases the potential of take rate up to 100%.</li> </ul>
<p><b>Hoffmann N, Walters P, Pourhassan S:</b>  <b>Anwendung des Ultraschall-Assistierten Wunddebridements in der täglichen klinischen Praxis der Wundversorgung schwer heilender chronischer Wunden.</b></p> <p><b>Poster EWMA conference, May 11-13, 2016; Bremen, Germany</b></p> <p><i>Preliminary results of study with venous and arterial leg ulcer patients conducted at Praxisgemeinschaft Oberhausen Sterkrade, Praxis für Gefäßchirurgie und Gefäßmedizin, Oberhausen, Germany</i></p>	<ul style="list-style-type: none"> <li>• UAW showed to be most effective in cleaning wounds and removing biofilms thus kick-starting healing.</li> <li>• UAW is easy to handle by both, the medical practitioner as well as the nurses attending the patient, and can therefore be integrated in daily routine practice of wound therapy.</li> </ul>



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