CLn Research Summary

\[ \text{Na}^+ \left[ \begin{array}{c} \text{O} \\ \text{Cl} \end{array} \right]^- \]
Research Summary

2 Studies in AD with Staph colonization

• EASI score improvement 46%
• Reduced itching 39%
• Reduced corticosteroid usage 37%
• Improved quality of life for child 38%
• Improved quality of life for parent 46%
• CLn preferred over bleach baths 88%
• Reduced Staph aureus colonization 100% to 64%

View 1st Study

View 2nd Study
https://doi.org/10.1111/pde.13842

For speakers slide deck contact Dr. Anwar dranwar@clnwash.com
The big idea; a sodium hypochlorite wash

**Bleach Baths**
- Anti-microbial
- Anti-inflammatory
- Effective
- Cumbersome
- Poor patient compliance
- Risks + do not use above neck

**CLn®**
- Anti-microbial
- Anti-inflammatory
- Effective
- Easy to use
- Good patient compliance
- Safe

*Sodium Hypochlorite + Surfactants + “proprietary technology”*

*Patented*
US, EU, Australia, others
CLn BodyWash is part of versatile line of therapeutic cleansers

Plus Glycerin for dry skin or need for moisturizing
Most versatile products
A Convenient Alternative to Bleach Baths
Plus Salicylic acid for oily skin or need for deeper cleansing

All CLn® cleansers and shampoos are formulated with sodium hypochlorite
## CLn® BodyWash ingredients

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water (Aqua)</td>
<td>Vehicle</td>
</tr>
<tr>
<td>Sodium Laureth Sulfate (SLES)</td>
<td>Anionic surfactant (thickener)</td>
</tr>
<tr>
<td>Cocamidopropyl Betaine</td>
<td>Amphoteric surfactant with acidic and basic groups in same molecule</td>
</tr>
<tr>
<td>Cocamide MEA</td>
<td>Non-ionic surfactant (chemical stability, mild on skin)</td>
</tr>
<tr>
<td>Disodium EDTA</td>
<td>Chelating Agent, preservative, stabilizer</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>Bleach, very effective disinfectant against bacteria, preservative</td>
</tr>
</tbody>
</table>
CLn BodyWash effective in 2 studies with eczema and staph colonization

**First Study**

**Study Design**
- 18 children and adolescents with moderate to severe eczema
- Staph culture positive
- No antibiotics used

**Findings**
- Significant eczema improvement
- 9/10 would recommend CLn® BodyWash over sodium hypochlorite baths

[View Study](https://onlinelibrary.wiley.com/doi/10.11/11/pde.12150)
2 y/o with eczema & recurrent staph cellulitis

Baseline

8 Weeks

2nd study in eczema & staph colonization

Dual Center: UT Houston and Northwestern University

Study Design

- 50 children and adolescents with moderate to severe eczema
- 6 week study
- Staph culture positive
- No antibiotics or medicated baths
- CLn BodyWash once daily

Findings

- Dramatic improvement of EASI score (46% at 6 weeks)
- Reduced itching
- Improved quality of life for patient and parent
- Reduced staph colonization
- Reduced steroid usage
- CLn BodyWash preferred over sodium hypochlorite baths

Adelaide A. Herbert MD
Professor of Dermatology & Pediatrics
The University of Texas Medical School, Houston

Amy S. Paller MD
Chair, Department of Dermatology
Feinberg School of Medicine
Northwestern University

View Study
Results

Staph colonization and eczema of the hand and popliteal fossa at baseline (A) and 6 weeks (B) post-treatment with sodium hypochlorite wash

(A) Baseline  
(B) 6 Weeks

Results of Clinical Severity Scores

% Mean Reduction from Baseline

EASI Wk 2: -34.2% (P<.00001)
EASI Wk 6: -46.0% (P<.00001)
BSA Wk 2: -21.8% (P<.00001)
BSA Wk 6: -23.1% (P<.00001)
IGA Wk 2: -33.6% (P<.00001)
IGA Wk 6: -35.7% (P<.00001)

Percent mean decrease in EASI, BSA and IGA at 2 weeks and 6 weeks post-treatment with sodium hypochlorite wash.


<table>
<thead>
<tr>
<th>Acronym</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>EASI</td>
<td>Eczema Area &amp; Severity Index</td>
</tr>
<tr>
<td>BSA</td>
<td>Body Surface Area</td>
</tr>
<tr>
<td>IGA</td>
<td>Investigator Global Assessment</td>
</tr>
</tbody>
</table>
Results of Clinical Severity Scores

% Mean Decrease in CDLQI, FDLQ, VAS and PSQ

Percent mean decrease in CDLQI, FDLQI, Pruritus VAS and PSQ at 2 weeks and 6 weeks post-treatment with sodium hypochlorite wash.


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<thead>
<tr>
<th>Acronym</th>
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<tr>
<td>CDLQI</td>
<td>Children’s Dermatology Life Quality Index</td>
</tr>
<tr>
<td>FDLQI</td>
<td>Family Dermatology Life Quality Index</td>
</tr>
<tr>
<td>VAS</td>
<td>Visual Analogue Scale</td>
</tr>
<tr>
<td>PSQ</td>
<td>Patient Satisfaction Questionnaire</td>
</tr>
</tbody>
</table>
Results of *Staphylococcus Aureus* Colonization

### Percent Subjects with Positive Culture

<table>
<thead>
<tr>
<th></th>
<th>All Staph Baseline</th>
<th>All Staph Wk2</th>
<th>MSSA Baseline</th>
<th>MSSA Wk2</th>
<th>MRSA Baseline</th>
<th>MRSA Wk2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>100.0%</td>
<td>64.0%</td>
<td>86.0%</td>
<td>50.0%</td>
<td>14.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>P</td>
<td>0.0005</td>
<td></td>
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| Percent of patients who tested positive for the presence of *Staphylococcus aureus* during bacterial culture of lesion swab at baseline and 2 weeks.

### Percent Subjects with Positive PCR

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<th>MRSA Baseline</th>
<th>MRSA Wk2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>74.0%</td>
<td>34.0%</td>
<td>48.0%</td>
<td>24.0%</td>
<td>26.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>P</td>
<td>0.0005</td>
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| Percent of patients who tested positive for the presence of *Staphylococcus aureus* during PCR analysis of lesion swab at baseline and 2 weeks.

CLEAN Study Summary

• 50 patients
• No antibiotics or hypochlorite baths
• Excellent safety
• Eczema improvement with excellent efficacy
• Reduced itching
• Improved quality of life for child and parent
• Reduced Staph colonization
• Reduced corticosteroid usage
• CLn BodyWash preferred over sodium hypochlorite baths


References


   VIEW: https://www.ncbi.nlm.nih.gov/pubmed/19403473


   VIEW: https://m.jci.org/articles/view/70895


6. CLn BodyWash is effective in the management of Staph colonized AD patients. PIs: Drs. Hebert and Paller. UT Houston and Northwestern. Bohaty et al. CLEAN Study: e-Poster 7728 March 2014 AAD

   VIEW: https://www.clnwash.com/pdf/BohatyTopMDPosterFinalUpdated03-03-2014.pdf


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www.CLnMD.com