Introducing CLn:
The new standard for therapeutic cleansing
Background

- Microbes and compromised skin lead to skin diseases in over 100 million in the US:
  - Eczema / Atopic Dermatitis
  - Folliculitis & Skin Infections in athletes
  - Acne
  - Athlete’s Foot, Dandruff, Ringworm

- Often Rx products are used first while proper cleansing is ignored

- Sodium hypochlorite delivered via bleach baths is known to be antimicrobial, anti-inflammatory and anti-aging

- Bleach baths are clinically effective for Atopic Dermatitis and Staph aureus decolonization

- CLn Skin Care introduces therapeutic cleansing with a sodium hypochlorite cleanser
The Big Idea: Therapeutic Cleansing with 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, Australia, others
## CLn® BodyWash

<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>
Testing of CLn® BodyWash

- **Epiocular™** tissue in-vitro toxicity testing showed ‘non-irritating’

- **Patch testing** showed no skin irritation or sensitization

- Shown to meet the criteria for the US and European Pharmacopeia **Antimicrobial Effectiveness Test**
  - With <10 viable count and a 4.2-5.0 log reduction by day 2
  - Gauges the level of biological activity possessed by the preservative system of a pharmaceutical product.

- Kill Rates:
  - 99.9% kill rate of P. Acnes at 30 and 60 seconds
  - 98% kill rate of S. Aureus at 2 minutes
  - 99.9% kill rate of S. Aureus at 3 and 5 minutes
Instructions for Use

3 Simple Steps
1. Wet affected area
2. Using hands to form a lather, massage into skin, hair or nails for 2 minutes
3. Rinse thoroughly

Practical Tips
1. For best results, turn off water during recommended cleansing time
2. May use a scrubber or loofah
3. Apply moisturizer or other products as needed
4. Most CLn products can be used daily. If dryness occurs, reduce usage to every other day
5. May use on hair, face or body
Effective in 2 Studies with Staph Colonization

1st Study led by Dr. Fred Ghali
Published in Peds Derm June 2013

Study
- 18 children with moderate to severe eczema
- Staph culture positive
- No antibiotics used

Findings
- Significant eczema improvement
- 9/10 would recommend CLn® to others

Fred Ghali, MD
Pediatric Dermatologist
Dallas, TX

2 y/o with eczema & recurrent staph cellulitis

Baseline

8 Weeks

Sodium Hypochlorite Body Wash 
as a maintenance intervention to decrease 
Staphylococcus Aureus Colonization 
in Pediatric Patients with Atopic Dermatitis

Tanya Bhattacharya‡, BS, Benjamin R. Bohaty, MD†, Lina M. Rodriguez, MD‡, Kathryn C. Durham, MD†, Gil Abramovici, MD‡, Lori Asztalos, MD‡, Dennis P. West, PhD ‡, Adelaide A. Hebert, MD† *, Amy S. Paller, MD‡*

†Department Of Dermatology, The University Of Texas Health Science Center at Houston, Houston, Texas
‡Department Of Dermatology, Northwestern University Feinberg School Of Medicine, Chicago, Illinois

*These Authors Contributed Equally To The Study
2nd Study in staph colonization & eczema

2nd Study completed in 2014 at UT Houston and Northwestern University

Study
- 50 children with moderate to severe eczema
- 6 week study
- Staph culture positive
- No antibiotics used

Findings
- Dramatic improvement of skin
- Reduced itching and improved quality of life of child and parent
- Reduced steroid usage
- Reduced Staph bacteria colonization

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
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
EASI Score is a tool used to measure severity and extent of atopic dermatitis. It is a compilation of 4 body regions (head and neck, upper limbs, trunk and lower limbs) multiplied by the severity of four factors: Redness, Thickness, Scratching & Lichenification.

https://www.dermnetnz.org/topics/easi-score/
Results of Clinical Severity Scores

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

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.

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><strong>Percent</strong></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>
</tbody>
</table>

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**

<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><strong>Percent</strong></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>
</tbody>
</table>

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
• Excellent safety
• Eczema improvement with excellent efficacy
• Reduced itching
• Improved quality of life for child and parent
• Other observations
  • Reduced corticosteroid usage
  • Reduced Staph and MRSA colonization

Jan 2016 NEA online member survey of eczema sufferers:

1. **Overall, are you satisfied with the treatment of atopic dermatitis?**
   - 86% reported they were **not** satisfied with the treatment of atopic dermatitis (AD)

2. **Overall, do you think doctors know how to treat atopic dermatitis?**
   - 91% responded that they think doctors **do not know how to treat AD**

3. **How many doctors have you seen for this problem?**
   - 56% reported having **seen up to 5 doctors** for their or their child’s AD
Cleansing with CLn: A Good First Step

Cleansing with CLn is a good first step to manage many common skin conditions

- Eczema
- Folliculitis
- Acne
- Seb Derm
- Rosacea
- Dandruff
- Skin Infections
A Versatile Line of 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
Sports and Skin Infections

- High rate of skin breakdown
- 30% of athletes can be colonized with MRSA
- High rate of staph infections
- High rate of fungal infections
- High rate of antibiotic use
- Concern for antibiotic resistance is rising
High Level of Staph and MRSA Colonization in Athletes

- 377 Athletes at Vanderbilt Univ.
  - 224 in contact sports / 153 in non-contact sports
- Nasal and oropharyngeal swabs monthly
- Findings:
  - 62% Staph colonized
  - 29% of contact sport MRSA colonized
  - 23% of non-contact sports MRSA colonized
  - Football players are twice as likely to be colonized
  - Colonization more prevalent in the summer
  - 9 Skin and Soft Tissue Infections; 7 were MRSA

Summary:

Athletes MRSA colonized at higher rates than general population.

# Pro athletes with serious Staph infections

<table>
<thead>
<tr>
<th>NFL</th>
<th>NHL</th>
<th>NBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tampa Bay Buccaneers</td>
<td>Minnesota Wild</td>
<td>Memphis Grizzlies</td>
</tr>
<tr>
<td>▪ Carl Nicks</td>
<td>▪ Christian Folin</td>
<td>▪ Rudy Gay</td>
</tr>
<tr>
<td>▪ Lawrence Tynes*</td>
<td>▪ Keith Ballard</td>
<td></td>
</tr>
<tr>
<td>▪ Johnthan Banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleveland Browns</td>
<td>St. Louis Blues</td>
<td>Houston Rockets</td>
</tr>
<tr>
<td>▪ Joe Jurevicius</td>
<td>▪ Jori Lehtera</td>
<td>▪ Shane Battier</td>
</tr>
<tr>
<td>▪ Kellen Winslow, JR</td>
<td>▪ Jake Allen</td>
<td></td>
</tr>
<tr>
<td>▪ Ben Taylor</td>
<td>▪ Brian Elliott</td>
<td></td>
</tr>
<tr>
<td>▪ LeCharles Bentley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Brian Russell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Braylon Edwards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington Redskins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Brandon Noble*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Louis Rams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ 5 players</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York Giants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▪ Daniel Fells*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New England Patriots</td>
<td>Philadelphia Phillies</td>
<td>Cleveland Cavaliers</td>
</tr>
<tr>
<td>▪ Tom Brady (2008)</td>
<td>▪ Freddy Galvis</td>
<td>▪ Drew Gooden</td>
</tr>
<tr>
<td>Houston Texans</td>
<td>Chicago White Sox</td>
<td>Denver Nuggets</td>
</tr>
<tr>
<td>▪ JJ Watt (2015)</td>
<td>▪ Álex Riós</td>
<td>▪ Kenyon Martin</td>
</tr>
</tbody>
</table>

*career ending infections*
Watch the CLn® Story Video >>

- Medical grade cleanser
- Clinically studied
- Effective
- No barrier disruption
- Antibiotic sparing
- Steroid sparing
CLn® BodyWash

• For skin prone to eczema, dermatitis & infection
• Preserved with sodium hypochlorite
• pH 7.8
• Use daily
• Available in 3.4, 8 and 12 fl oz.
• No residual cleanser
• Lather 2 minutes
CLn® SportWash

- For skin prone to infection, acne, and folliculitis
- Preserved with sodium hypochlorite
- pH 7.8
- Use daily head to toe
- Available in 3.4 and 12 fl oz.
- No residual cleanser
- Use within 30-60 minutes of exercise or activity
- Lather 2 minutes or may leave on before shower
CLn® Facial Cleanser

- For skin prone to eczema, dermatitis, rosacea & acne
- Proprietary formulation with
  - **Glycerin**
  - moisturizers
  - skin conditioners
- **No Salicylic Acid**
- Preserved with sodium hypochlorite
- pH 6.0
- Daily use
- Available in 2.5 and 3.4 fl oz.
CLn® Shampoo

- For normal to oily scalp prone to folliculitis, dermatitis & dandruff
- Proprietary combination of
  - Salicylic Acid
  - Moisturizers,
  - Skin conditioners,
  - Glycerin
- Preserved with sodium hypochlorite
- pH 6.3
- 1-3 x weekly use or as directed
- Available in 8 and 12 fl oz.
**CLn® Gentle Shampoo**

- For scalp prone to dryness, itching & flaking
- Proprietary combination of surfactants, moisturizers, hair conditioners and **Glycerin**
- **No Salicylic Acid**
- Preserved with sodium hypochlorite
- pH 6.0
- Use daily or as needed
- Available in 8 and 12 fl oz.
CLn® Hand & Foot Wash

- For hands, feet, and nails prone to fungus, dermatitis & infection
- Proprietary combination of surfactants, skin conditioners and Salicylic Acid
- Preserved with sodium hypochlorite
- pH 6.3
- Use Daily or as directed
- Available in 8 and 12 fl oz.
CLn® Acne Cleanser

- Synergies of a great cleanser with a safe, proven acne treatment
  - Salicylic Acid 0.5%
  - Plus CLn® BodyWash formula
- Safe on skin
- Non antibiotic alternative
- Does not discolor clothing
- Use once or twice daily
- Available in 2.5 fl oz.
CLn® Facial Moisturizer

- Light and non-greasy
- Does not clog pores
- Reduces the appearance of redness and protects the skin’s natural barrier
- Niacinamide and Ceramide Complex –
  - antioxidant
  - anti-inflammatory
- **Does not contain sodium hypochlorite**
- Apply morning and night as needed
- Available in 2.5 and 3.4 fl oz.
Uses: 1. Common Skin Conditions

- Rash, Red, Itchy skin
- Eczema
- Atopic dermatitis
- Seborrheic dermatitis
- Folliculitis
- Acne
- Psoriasis
- Hidradenitis suppurativa
- Radiation dermatitis

**How to use:**
Lather in shower for 2 minutes
May apply to problem areas pre shower

**When to use:**
After activity or at bedtime
Uses: 2. Hygiene & Risk of Infection

- MRSA / Staph
- Pre-surgical hygiene
- Sports skin infections
- Ablative skin procedures
- Hair removal
- Elder care
- Diabetics
- Wound care
- Athlete’s foot
- Smelly feet

**Tips:**

**Pre surgery hygiene for 5-7 days**
- Whole body
- Nail beds
- Skin folds
- Lower extremity needs more attention

**How:**
Lather in shower for 2 minutes
Also, may apply to problem areas pre shower

Use **Chlorhexidine as usual**
one day pre and day of surgery

- CLn Shampoo can be used all body
References

1. Bleach Baths effective in AD. Senior author: Dr. Paller. 31 patients. 

2. Bleach Baths show anti-inflammatory and anti aging impact in mice. 

3. CLn® BodyWash is effective in Staph colonized AD. Senior author: Dr. Ghali. 18 patient CLn feasibility. 

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