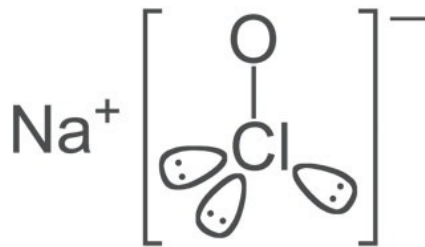


- This deck is intended for education of doctors and medical professionals
- Skin cleansing is an important first step in managing problem skin and scalp
- CLn offers a variety of skin cleansing products for normal, dry, oily, damaged and irritated skin
- CLn Acne cleanser is intended for treatment of acne
- The other CLn cleansers are not intended for treatment, prevention, cure or diagnosis of diseases
- CLn cleansers can be used as an alternative to bleach baths



# Skin Cleansing with Sodium Hypochlorite Washes



Razor burn  
Oily  
Folliculitis  
Ingrown hairs  
Flaky  
Skin Infection  
Redness  
Fungus  
Athlete's foot  
Ringworm  
MRSA  
Atopic dermatitis  
Sensitive  
Itchy skin  
Eczema  
Acne  
Psoriasis  
Dandruff  
Staph  
Radiation irritation



- Microbes and compromised skin lead to skin diseases in >100 million in the US:
  - Eczema / Atopic Dermatitis
  - Folliculitis and Acne
  - Body Odor and Athlete's Foot
  - Cellulitis & Impetigo
  - Skin infections also a risk of aesthetic and surgical procedures
- Antibiotic overuse leads to antimicrobial resistance and is a public health concern
- Often Rx products are used first while proper cleansing is ignored

# The big idea; a sodium hypochlorite wash



Sodium Hypochlorite  
+  
Surfactants  
+  
“proprietary  
technology”

**Patented**

US, EU, Australia, others



## Bleach Baths (60-90 ppm)

- 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 via medicated baths (bleach baths) is:

- Bactericidal to staph, multiple microbes and used for staph decolonization protocols \*
- Anti-inflammatory: modulate signaling proteins and inflammatory responses in the skin (reduced NF-kB)\*\*
- Anti-aging: enhanced epidermal thickness and proliferation, comparable to juvenile skin (reduced p16)\*\*
- Recommended for management of atopic dermatitis \*\*\*

Fritz SA, Camins BC, et al. Effectiveness of measures to eradicate Staphylococcus aureus carriage in patients with community-associated skin and soft-tissue infections: a randomized trial. Infect Control Hosp Epidemiol. 2011 Sep;32(9):872-80.  
DOI: [10.1086/661285](https://doi.org/10.1086/661285)

\*\*Thomas Leung, Lillian Zhang, et al J Clin Invest. 2013;123(12):5361-5370.  
<https://www.jci.org/articles/view/70895>

\*\*\* Atopic dermatitis (eczema) guidelines: 2023 American Academy of Allergy, Asthma and Immunology/American College of Allergy, Asthma and Immunology Joint Task Force on Practice Parameters GRADE- and Institute of Medicine-based recommendations  
[https://www.annallergy.org/article/S1081-1206\(23\)01455-2/fulltext](https://www.annallergy.org/article/S1081-1206(23)01455-2/fulltext)

## *2 Studies in AD with Staph colonization*



- Reduced Staph Aureus colonization 100% to 64%
- 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%

### **View 1<sup>st</sup> Study**

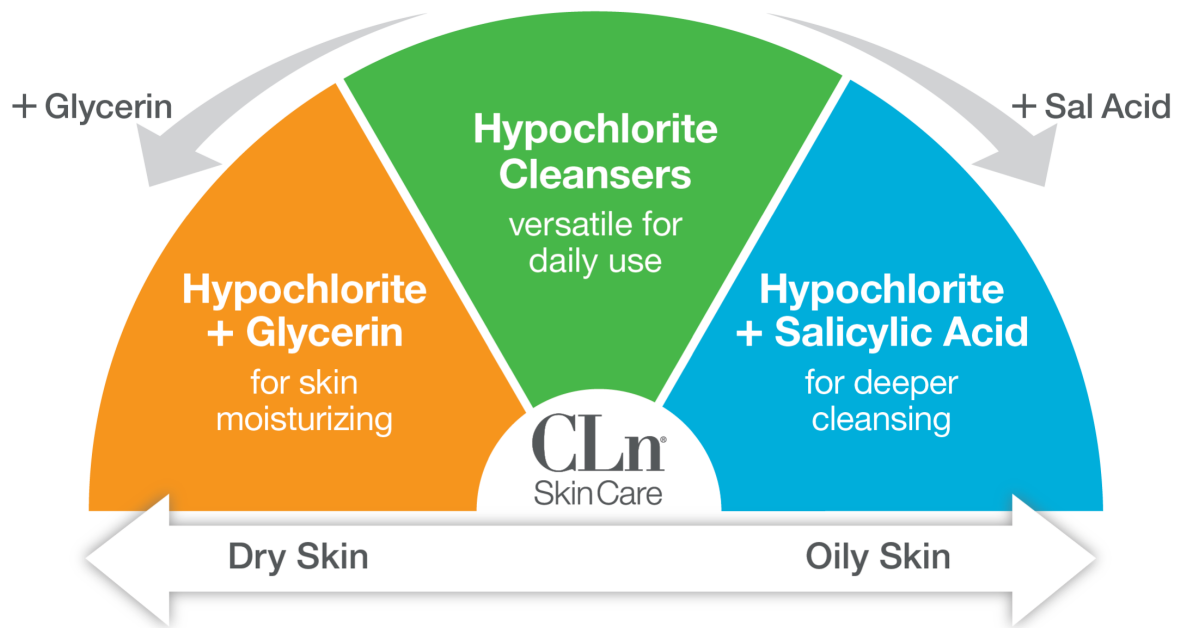
<https://onlinelibrary.wiley.com/doi/10.1111/pde.12150>

### **View 2<sup>nd</sup> Study**

<https://doi.org/10.1111/pde.13842>

For speakers slide deck contact  
Dr. Anwar [dranwar@clnwash.com](mailto:dranwar@clnwash.com)

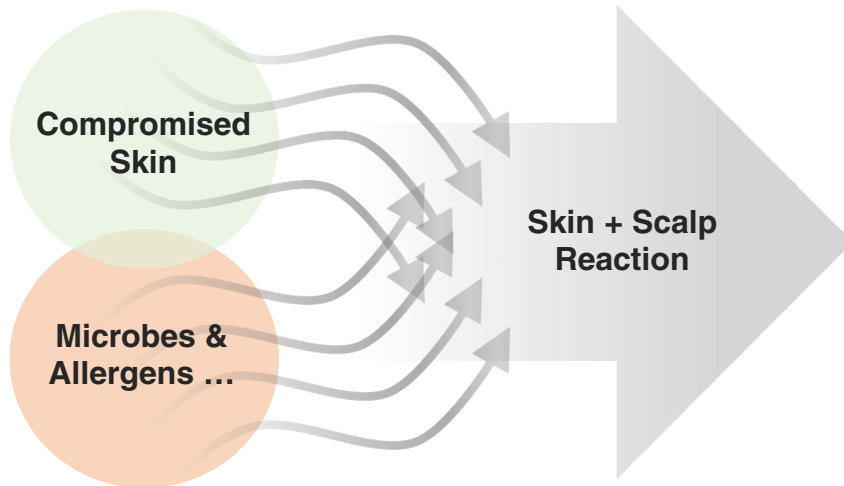
- Epiocular™ tissue in-vitro toxicity testing showed 'non-irritating'
- Patch testing showed no skin irritation or sensitization
- Meets the criteria for the US and European Pharmacopeia Antimicrobial Effectiveness Test
  - Test microorganisms used according to usp 51 test are
    - Staphylococcus aureus, E.coli, Ps.aeruginosa, Candida albicans and Aspergillus brasiliensis (Aspergillus niger)
    - 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 Cutibacterium Acnes at 30 and 60 seconds
  - 98% kill rate of Staphylococcus Aureus at 2 minutes
  - 99.9% kill rate of Staphylococcus Aureus at 3 and 5 minutes
  - 99.9% kill rate of Coronavirus at 15 and 30 seconds (50% dilution)







# Microbes & Allergens Worsen Compromised Skin



*Staph*  
*Strep*  
*Cutibacterium Acnes*  
*Malassezia*  
*Biofilm*

# Cleansing for Eczema and Rash





# Acne and Folliculitis (back acne)



CLnWash.com

Amazon

Walmart.com

Local Pharmacies with Physician Request

# Products



- For skin prone to eczema, dermatitis & rash
- Proprietary combination of
  - Sodium hypochlorite
  - Surfactants
- pH 7.8
- Gentle and does not impair skin barrier
- Non-residue cleanser
- Use daily head to toe
- Lather 2 minutes and rinse off in shower
- Available in 3.0, 3.4, 8 and 12 fl oz.
- \*Can use as leave on in special cases



INGREDIENTS	FUNCTION
Water (Aqua)	Vehicle
Sodium Laureth Sulfate (SLES)	Anionic surfactant (thickener)
Cocamidopropyl Betaine	Amphoteric surfactant with acidic and basic groups in same molecule
Cocamide MEA	Non-ionic surfactant (chemical stability, mild on skin)
Disodium EDTA	Chelating Agent, preservative, stabilizer
Sodium Hypochlorite	Bleach, very effective disinfectant against bacteria, preservative



1. Use hands to deliver / No wash cloth
2. May use on hair, face or body
3. Wet skin thoroughly, then turn water off
4. BodyWash and SportWash – lather for 2 minutes
5. Scrub nail beds
6. Rinse with lukewarm water
7. Apply moisturizer or other products as needed



- For skin prone to redness, acne, and folliculitis, odor
- Proprietary combination of
  - Sodium hypochlorite
  - Surfactants
- pH 7.8
- Use daily head to toe
- Gentle and does not impair skin barrier
- Non-residue cleanser
- Use within 30-60 minutes of exercise or activity
- Lather 2 minutes and rinse off in shower
- Available in 3.4 and 12 fl oz.
- \*Can use as a leave on in special cases



- Gently cleanses and soothes hands prone to itching, cracking and dryness
- Proprietary combination of
  - Sodium hypochlorite
  - Glycerin
  - Surfactants
- pH 6.0
- Gentle on skin for frequent use
- Available in 8 fl oz.



- Synergies of a great cleanser with a safe, proven acne treatment
- Proprietary combination of
  - Sodium hypochlorite
  - Sal Acid 0.5%
- pH 7.3
- Non antibiotic alternative
- No sun sensitization
- Non-residue cleanser
- Does not discolor clothing
- Use once or twice daily
- Available in 3.4 fl oz.



- For normal to oily scalp prone to folliculitis, dermatitis & dandruff
- Proprietary combination of
  - Sodium hypochlorite
  - Salicylic acid
  - Glycerin
  - Conditioners
- pH 6.3
- 1-3 x weekly use or as directed
- May alternate with CLn 2-in-1 Gentle Wash and Shampoo
- Available in 8 and 12 fl oz.



- For scalp prone to dryness, itching & flaking
- Proprietary combination of
  - Sodium hypochlorite
  - Glycerin
  - Conditioners
- No Salicylic Acid
- pH 6.0
- Available in 8 and 12 fl oz.
- Best way to use
  - As a shampoo use 1-3 x weekly
  - As a body wash – use 1-2 x daily



- For hair prone to damage and dryness
- Combination of
  - Hydrating Conditioners
  - Panthenol
  - Vitamin E
- Available in 6 fl oz.
- Best way to use
  - Use 1-2 times per week as a deep conditioner





- For skin prone to eczema, dermatitis, rosacea & acne
- Proprietary formulation with
  - Sodium hypochlorite
  - Glycerin
  - Moisturizers
  - Skin conditioners
- No Salicylic Acid
- pH 6.0
- Daily use
- Available in 3.4 fl oz.



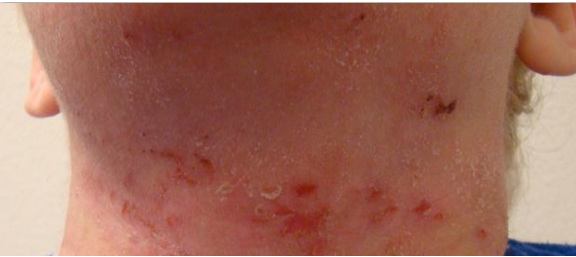
- Light and non-greasy
- No animal products
- Does not clog pores
- Reduces the appearance of redness
- Helps strengthen skin's natural barrier
- Niacinamide and Ceramide Complex
  - Antioxidant
  - Anti-inflammatory
- Does not contain sodium hypochlorite
- Apply morning and night as needed
- Available in 3.4 fl oz.

1. Huang JT, Abrams M, Tlougan B et al. Treatment of Staphylococcus aureus colonization in atopic dermatitis decreases disease severity. Pediatrics 2009;123:e808–e814.  
VIEW: <https://www.ncbi.nlm.nih.gov/pubmed/19403473>
2. Leung T, Zhang L. , Wang J. et al. Topical hypochlorite ameliorates NF-κB–mediated skin diseases in mice. J Clin Invest. 2013;123(12):5361–5370.  
VIEW: <https://m.jci.org/articles/view/70895>
3. Ryan C, Shaw RE, Cockerell CJ, et al. Novel sodium hypochlorite cleanser shows clinical response and excellent acceptability in the treatment of atopic dermatitis. Pediatric Dermatology 2013;30:308-315.  
VIEW: <https://onlinelibrary.wiley.com/doi/full/10.1111/pde.12150>
4. Majewski, S, Bhattacharya, T, Asztalos, M, et al. Sodium hypochlorite body wash in the management of Staphylococcus aureus–colonized moderate-to-severe atopic dermatitis in infants, children, and adolescents. Pediatr Dermatol. 2019; 00: 1– 6.  
VIEW : <https://onlinelibrary.wiley.com/doi/full/10.1111/pde.13842>
5. Mitchell et al, Bacterial Sport-Related Skin and Soft-Tissue Infections (SSTIs): An Ongoing Problem Among a Diverse Range of Athletes JBJs REVIEWS 2017;5(1):e4 ·  
<http://dx.doi.org/10.2106/JBJs.RVW.16.00006>  
VIEW: [https://www.clnwash.com/pdf/Singleton\\_JBJsReviews.pdf](https://www.clnwash.com/pdf/Singleton_JBJsReviews.pdf)
6. CLn BodyWash is effective in the management of Staph colonized AD patients. Pls: 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>
7. Asztalos et al. Sodium Hypochlorite Body Wash As A Maintenance Intervention To Decrease Staphylococcus aureus Colonization In Pediatric Patients With Atopic Dermatitis. World Congress of Dermatology Presentation, June 2015.  
VIEW: [https://www.clnwash.com/pdf/WCD\\_Presentation\\_06-01-2015.pdf](https://www.clnwash.com/pdf/WCD_Presentation_06-01-2015.pdf)

# Appendix

Eczema Studies

Sports Skin Problems



10 y/o, on Cyclosporine



10 Weeks after CLn<sup>®</sup>

## Single Center, Feasibility 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<sup>®</sup> BodyWash over sodium hypochlorite baths



Fred Ghali, MD  
Pediatric  
Dermatologist

### View Study

<https://onlinelibrary.wiley.com/doi/10.1111/pde.12150>



Baseline



8 Weeks

View Study <https://onlinelibrary.wiley.com/doi/10.1111/pde.12150>

## 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

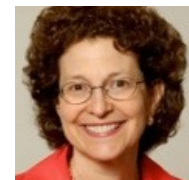
## Dual Center: UT Houston and Northwestern University

### 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



**Adelaide A. Hebert 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

### 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

### View Study

<https://onlinelibrary.wiley.com/doi/full/10.1111/pde.13842>



12 yr. old - Baseline



2 Weeks



6 Weeks



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



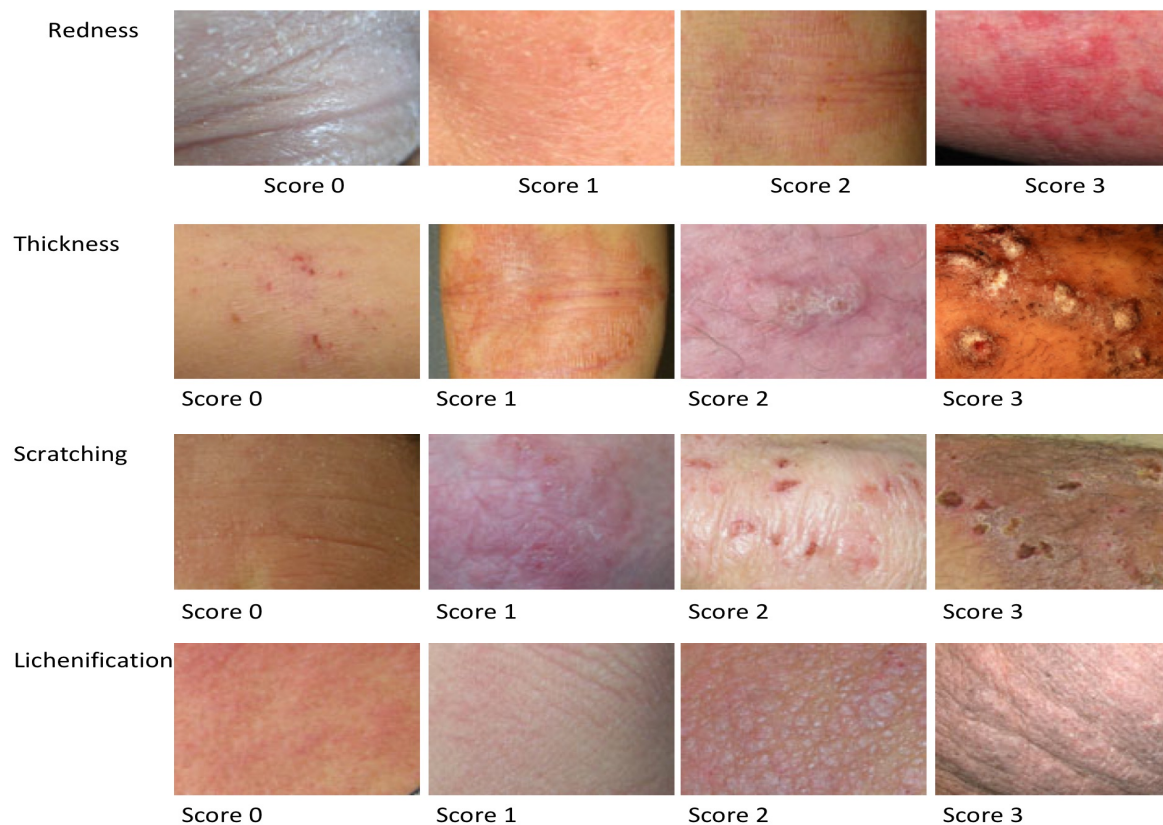
(B) 6 Weeks



Asztalos et al. Sodium Hypochlorite Body Wash As A Maintenance Intervention To Decrease Staphylococcus aureus Colonization In Pediatric Patients With Atopic Dermatitis. World Congress of Dermatology. June 2015.

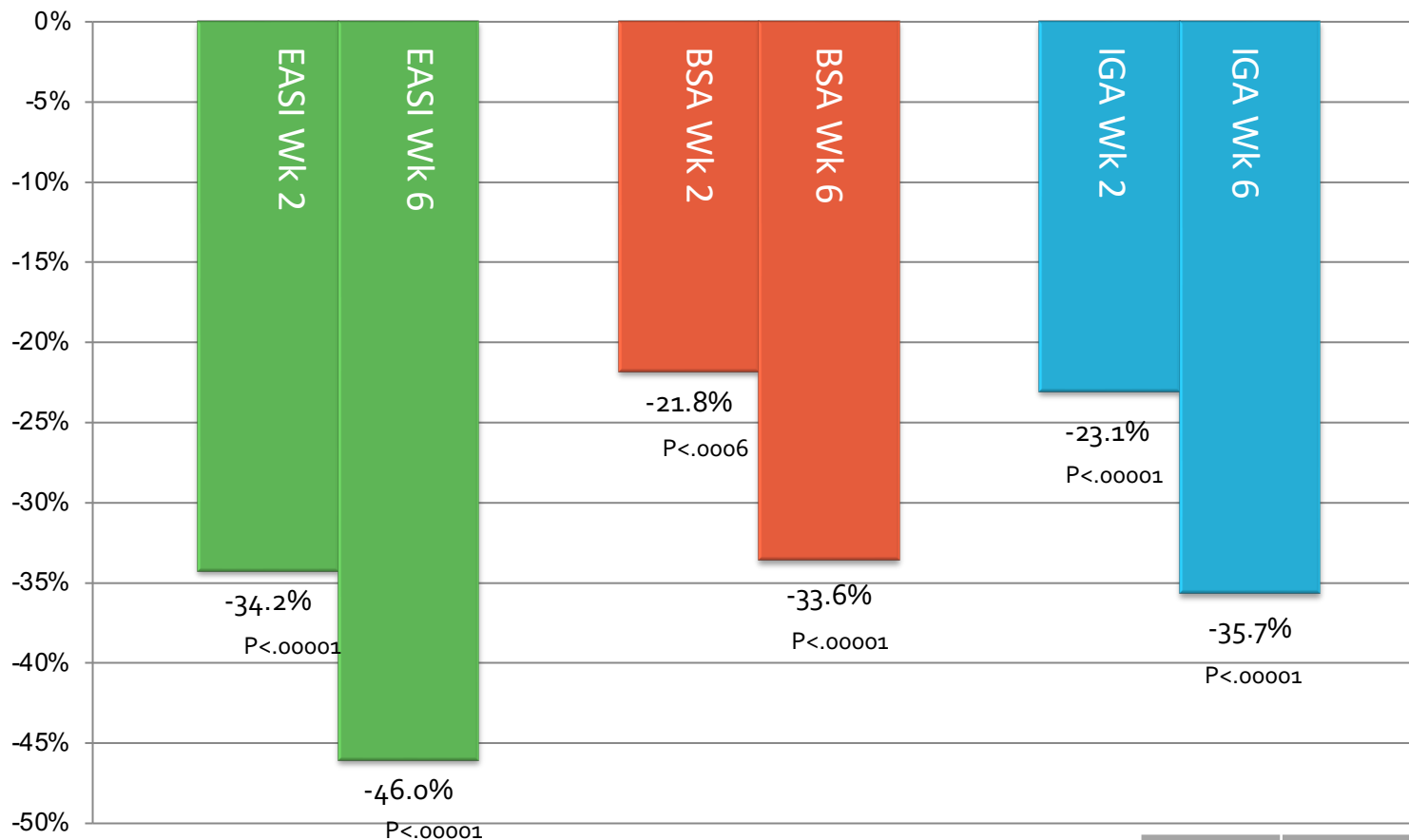
# Eczema Area and Severity Index

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



# Results of Clinical Severity Scores

## % Mean Reduction from Baseline



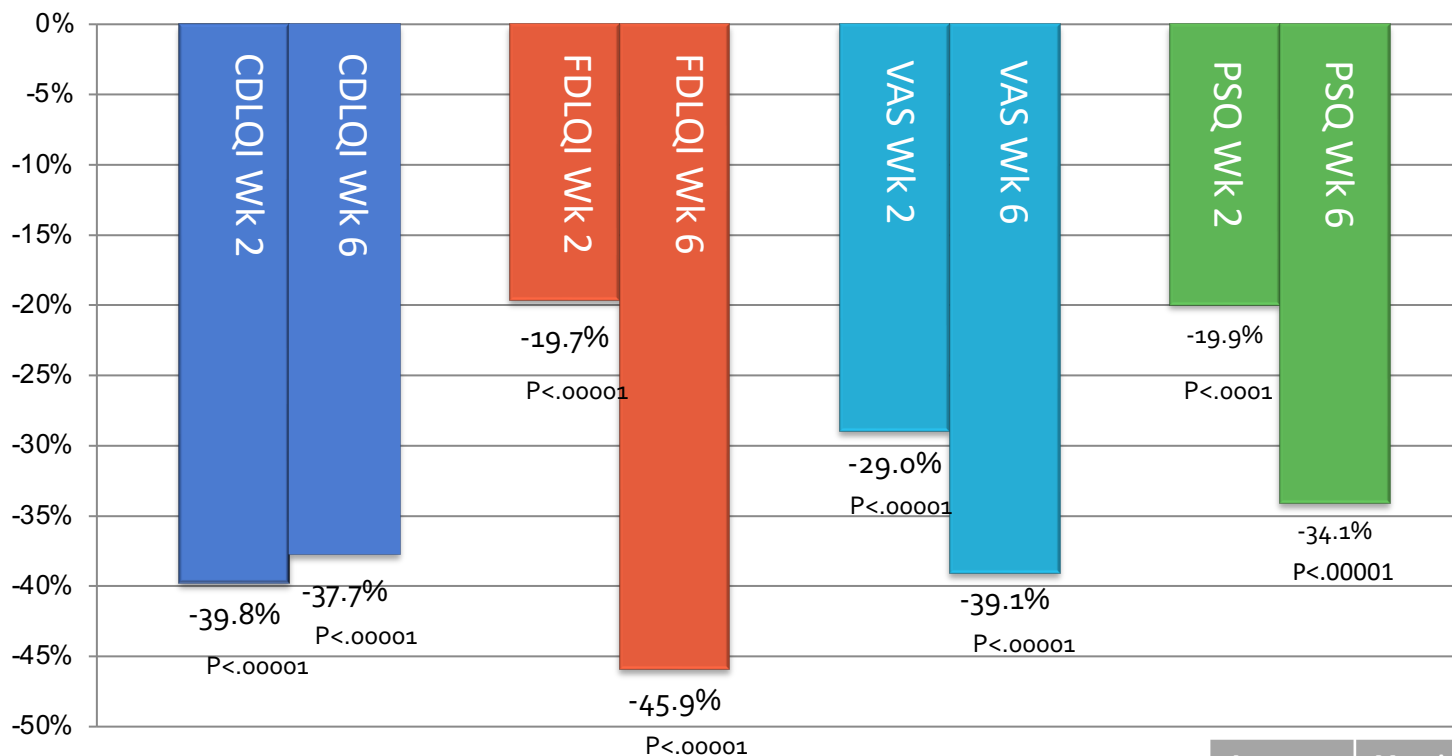
Percent mean decrease in EASI, BSA and IGA at 2 weeks and 6 weeks post-treatment with sodium hypochlorite wash.

Acronym	Meaning
EASI	Eczema Area & Severity Index
BSA	Body Surface Area
IGA	Investigator Global Assessment

Asztalos et al. Sodium Hypochlorite Body Wash As A Maintenance Intervention To Decrease Staphylococcus aureus Colonization In Pediatric Patients With Atopic Dermatitis. World Congress of Dermatology. June 2015.

# Results of Clinical Severity Scores

## % Mean Decrease in CDLQI, FDLQ, VAS and PSQ



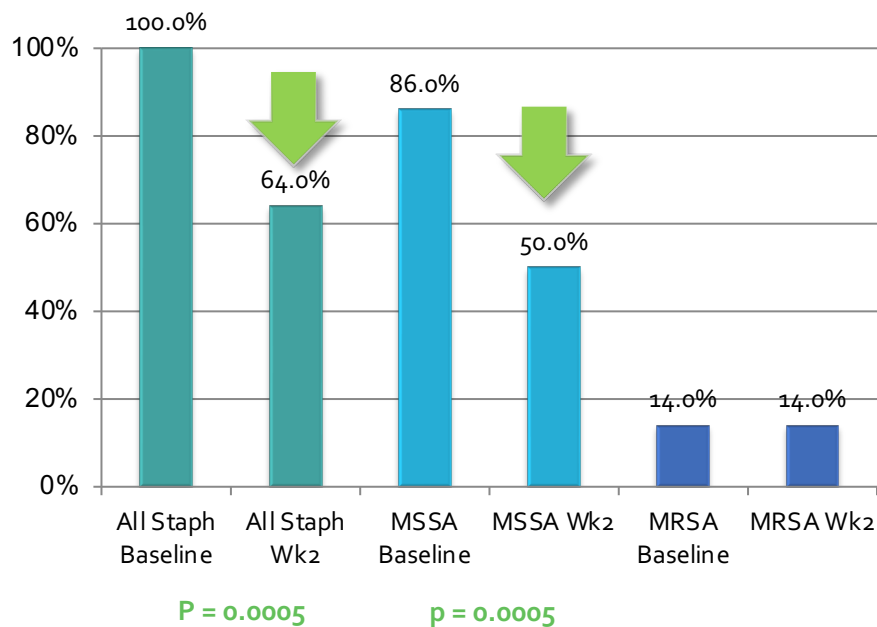
Acronym	Meaning
CDLQI	Children's Dermatology Life Quality Index
FDLQI	Family Dermatology Life Quality Index
VAS	Visual Analogue Scale
PSQ	Patient Satisfaction Questionnaire

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

Asztalos et al. Sodium Hypochlorite Body Wash As A Maintenance Intervention To Decrease Staphylococcus aureus Colonization In Pediatric Patients With Atopic Dermatitis. World Congress of Dermatology. June 2015.

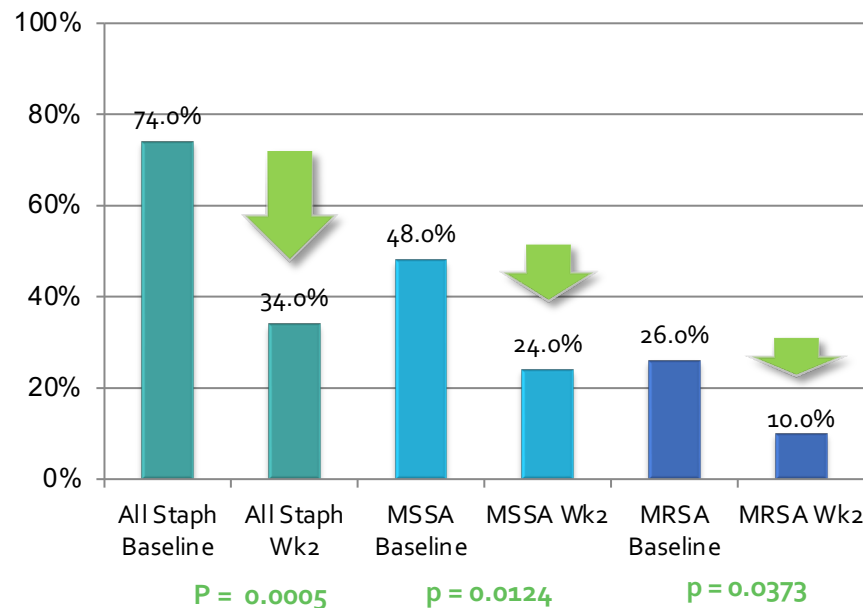
# Results of *Staphylococcus Aureus* Colonization

### Percent Subjects with Positive Culture



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



Percent of patients who tested positive for the presence of *Staphylococcus aureus* during PCR analysis of lesion swab at baseline and 2 weeks.

# Sports & Skin Problems



- High rate of skin breakdown
- 29% of contact athletes can be colonized with MRSA
- High rate of staph infections
- High rate of fungal infections
- High rate of antibiotic use
- **Antibiotic resistance rising in sports**

Mitchell et al, Bacterial Sport-Related Skin and Soft-Tissue Infections (SSTIs): An Ongoing Problem Among a Diverse Range of Athletes  
JBJS REVIEWS 2017;5(1):e4 · <http://dx.doi.org/10.2106/JBJS.RVW.16.00006>

- 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.

Jimenez-Truque, N. et al, Longitudinal Assessment of Colonization With Staphylococcus aureus in Healthy Collegiate Athletes Journal of the Pediatric Infectious Diseases Society, Vol. 5, No. 2, pp. 105–13, 2016. DOI:10.1093/jpids/piu108

View