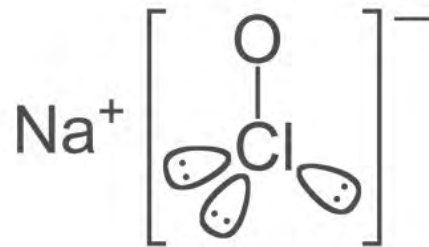




Sports Medicine

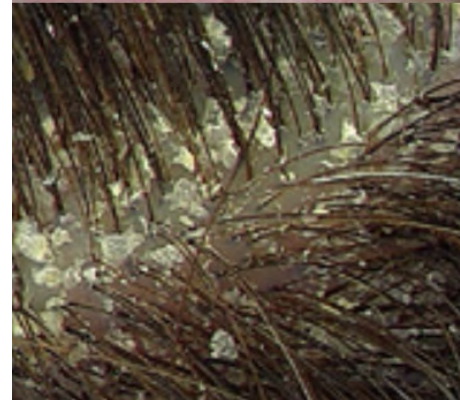


Razor burn
Oily
Folliculitis
Ingrown hairs
Flaky
Skin Infection
Redness
Fungus
Athlete's foot
Ringworm
MRSA
Atopic dermatitis
Sensitive
Itchy skin
Eczema
Acne
Psoriasis
Dandruff
Staph
Radiation irritation



Sports & skin infections

- Microbes and compromised skin involved in skin diseases in over 100 million people in the US
- High rate of skin breakdown in sports
- 30% of athletes can be colonized with MRSA
- High rate of staph infections
- High rate of fungal infections
- High rate of antibiotic use, therefore antibiotic resistance is a concern
- P. Acnes a cause of joint infection after shoulder surgery



377 Athletes at Vanderbilt*

- 224 in contact sports / 153 in non-contact sports
- Nasal and oropharyngeal swabs monthly

Findings

- 62% Staph colonization in athletes
- 29% of contact sport athletes carry MRSA
- 23% of non-contact sports carry MRSA
- Football players are twice as likely to be colonized
- Colonization more prevalent in the summer
- 9 staph infections; 7 were MRSA

Conclusion

Athletes colonized with MRSA at higher rates than general population

* Jimenez-Truque, Natalia, PhD

[* View More Info >>](#)

Athletes with serious Staph infections

(public information)

NFL



Tampa Bay Buccaneers

- Carl Nicks
- Lawrence Tynes*
- Johnthan Banks



Cleveland Browns

- Joe Jurevicius
- Kellen Winslow, JR
- Ben Taylor
- LeCharles Bentley
- Brian Russell
- Braylon Edwards



Washington Redskins

- Brandon Noble*



St. Louis Rams

- 5 players



New York Giants

- Daniel Fells*



New England Patriots

- Tom Brady (2008)



Houston Texans

- JJ Watt (2015)

Key Players

NHL



Minnesota Wild

- Christian Folin
- Keith Ballard



St. Louis Blues

- Jori Lehtera
- Jake Allen
- Brian Elliott

MLB



Philadelphia Phillies

- Freddy Galvis



Chicago White Sox

- Álex Riós

NBA



Memphis Grizzlies

- Rudy Gay



Houston Rockets

- Shane Battier



Boston Celtics

- Paul Pierce
- Delonte West



Cleveland Cavaliers

- Drew Gooden



Denver Nuggets

- Kenyon Martin



LA Clippers

- Blake Griffin
- Chris Kaman



Phoenix Suns

- Grant Hill

*career ending infections

Best option

- Bleach Baths & Intranasal Mupirocin

2nd option

- Chlorhexidine & Intranasal Mupirocin

Other options

- +/- above
- + Oral antibiotics

- Sodium hypochlorite delivered via bleach baths is an excellent option
 - However bleach baths are cumbersome and compliance is poor
- Chlorhexidine is drying / irritating and lathers poorly
- Excessive antibiotic usage is leading to antibiotic resistance
- Decolonization
 - Bleach Baths are the most beneficial cleansing regimen to achieve
 - Time consuming – takes months
 - Decolonization has high failure rates
 - Has limitations, therefore containment and better hygiene practices are being promoted more

The Big Idea



Sodium Hypochlorite
+
Surfactants
+
“proprietary
technology”

Patented
US Patent # 9066871



Bleach Baths

- Anti-microbial
- Anti-inflammatory
- Cumbersome and Risky
- Poor patient compliance
- Can not be used above neck

CLn®

- Anti-microbial
- Anti-inflammatory
- Easy to use and Safe
- Good patient compliance
- Safe & no barrier disruption

INGREDIENTS	FUNCTION
Water (Aqua)	Vehicle
Sodium Laureth Sulfate	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

- For skin prone to infection, acne, and folliculitis
- Preserved with sodium hypochlorite
- pH 7.8
- No residual cleanser
- Use daily head to toe
- Available in 3.4 and 12 fl oz.
- **Use within 30-60 minutes of exercise or activity**
- **Wet skin thoroughly and lather on skin for 2 minutes and rinse off thoroughly**



- **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

* data on file

Background Research



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

[View Full Study >>](#)



10 y/o, on Cyclosporine



10 Weeks after CLn[®]

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

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

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



12 yr old - Baseline

2 Weeks

6 Weeks

Study

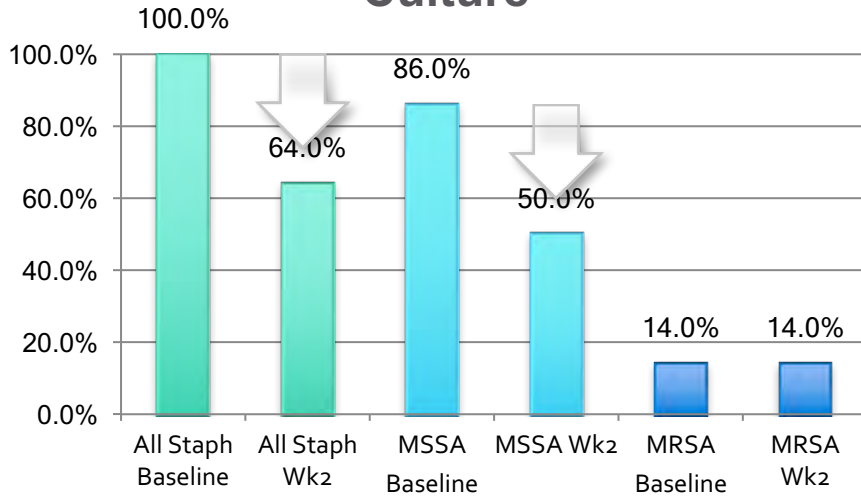
- 50 children with moderate to severe eczema
- 6 week study
- Staph culture positive
- No antibiotics used

Findings

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

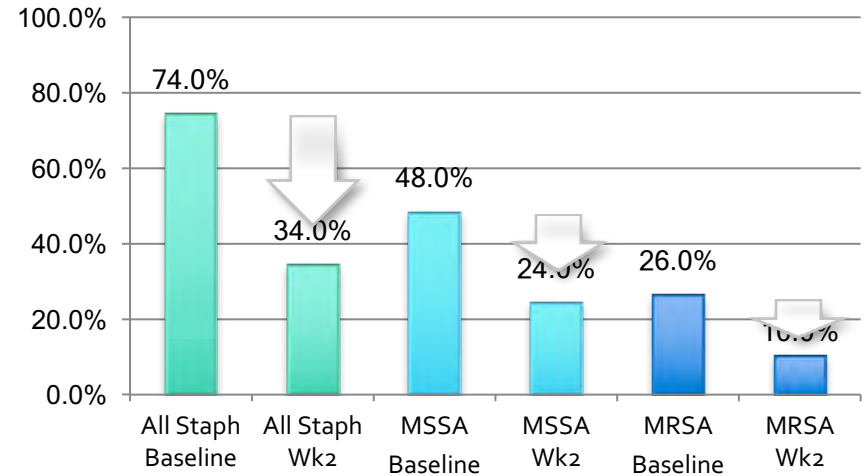
Results of Staphylococcus Aureus Colonization

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.

Best Practices

Daily hygiene

- Use of CLn SportWash daily – head to toe
- Shower within 60 minutes of exercise
- Lather with CLn[®] SportWash for 2 minutes
- Use scrubber for upper back and nail beds
- Rinse with lukewarm water
- Avoid tight exercise clothing

Peri – operative hygiene

- Follow pre-op guidelines as per guidelines
- Avoid high risk facilities such as gyms, crowded public facilities
- Use CLn SportWash as a daily cleanser for 5-7 days prior to surgery and use after surgery as feasible

Scalp cleansing

- CLn[®] Shampoo 1-3 X / week