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CLINICAL SERIES

OPTIMIZING THE PEDIATRIC BARRIER: THE ROLE OF EMOLLIENTS+ IN PEDIATRIC ATOPIC DERMATITIS (AD)

AD affects up to 20% of children, with skin barrier dysfunction at its core.[1] Three primary defects drive this dysfunction: reduced lipid content, filaggrin deficiency, and reduced synthesis of antimicrobial peptides.[1] These defects lead to xerosis, inflammation, and increased susceptibility to bacterial colonization.[1] Traditional emollients provide a protective barrier and retain moisture, but lack active ingredients to address underlying pathophysiology.[2,3] Emollients+ formulations represent a targeted approach, incorporating physiological lipids and bacterial lysates that directly address the pathophysiology of AD.[2-4]

PRIORITIZING ACTIVE BARRIER SUPPORT IN PEDIATRIC AD WITH EMOLLIENT+

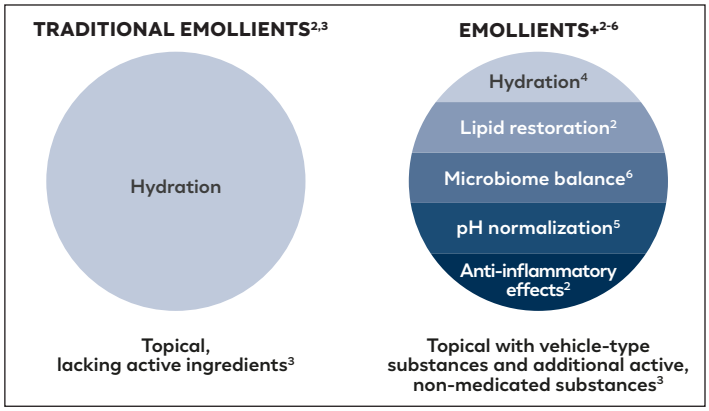
Emollients+ incorporate active non-pharmacological ingredients and are intended to provide barrier support through a more targeted, multi-mechanism approach rather than functioning solely as neutral vehicle-based moisturizers.[2] The literature describes an ideal emollient as one that combines five functional groups, including humectants, non-physiological and physiological lipids, soothing agents, and components that assist epidermal differentiation.[2] Because emollients+ products can differ markedly in their components and modes of action, there is considerable variability in their effects.[2] These formulations can target multiple mechanisms, such as using physiological lipids to restore barrier function, licorice extract for its anti-inflammatory properties, or xylitol and galacto oligosaccharides to inhibit harmful bacteria and promote beneficial commensal bacteria.[2]

EMOLLIENT+ DEMONSTRATES SUSTAINED IMPROVEMENT IN PEDIATRIC AD[5]

In an open-label study by Cestari et al. (2023) assessing a light balm enriched with *Aqua posae filiformis* and microresyl in 56 subjects with mild AD, including 25 children (mean age 7.0±3.0 years), results demonstrated that emollient+ improved clinical parameters in the pediatric population and was well tolerated.[5] Except for erythema, all clinical parameters significantly improved ($p < 0.001$ by day 28 in children.[5] By day 168, SCORAD, signs, and symptoms had significantly improved ($p < 0.05$) in the pediatric population compared to baseline.[5] Skin dryness improved significantly ($p < 0.001$) at all post-baseline visits, while skin hydration in lesional areas showed significant improvement starting at day 28 ($p < 0.001$).[5] Quality of life improved significantly, with the Children's Dermatology Life Quality Index (CDLQI) decreasing by 48.1% at day 14 and 84.2% by day 168.[5] Most notably, flares decreased from 4.1 to 1.4 over 6 months.[5]

"Is this just another lotion for my child?"

It does more than moisturize. These products contain ingredients that help rebalance and restore your skin barrier. Studies in children show they can not only help increase moisture, but also reduce flares and overall and improve their quality of life.[2,5]



CLINICAL EVIDENCE FOR EMOLLIENT+ SUPERIORITY OVER STANDARD APPROACHES[5]

Prakoeswa et al. (2025) conducted a double-blind, randomized controlled trial comparing an emollient+ enriched with Aqua Posae filiformis and microresyl against a standard 10% urea moisturizer in patients (n=60) with mild-to-moderate AD.[5] The results indicated that the emollient+ formulation was more effective at enhancing skin barrier function and alleviating symptoms than the urea comparator.[5] While both groups showed improvements, the emollient+ group demonstrated statistical superiority as early as week 4 for transepidermal water loss (TEWL) and skin pH, with significant differences in skin hydration and SCORAD scores becoming evident by week 8.[5] By week 12, patients using the emollient+ experienced significantly greater relief in eczema area and severity, quality of life, and pruritus compared with those utilizing the urea moisturizer.[5] Additionally, the emollient+ exhibited a greater improvement on disease severity, skin hydration, and a better tolerance than the group treated with 10% urea.[5]

TARGETING THE MICROBIOME AS A THERAPEUTIC STRATEGY[6]

Evidence indicates that emollients supplemented with nonpathogenic bacterial biomass can influence more than hydration and barrier repair, and may help support immune modulation, microbiota normalization, and flare reduction in AD.[6] Seité et al. (2017) investigated the potential of using emollients supplemented with non-pathogenic bacterial biomass as a prebiotic strategy to manage AD.[6] The study hypothesized that applying a formulation containing *Vitreoscilla filiformis* biomass enriched with thermal spring water and mannose could help regulate the immune system and restore a healthy microbiome.[6] Results showed that this microbiome-targeting approach was superior to a standard emollient in reducing flare-ups and disease severity over a one-month period.[6] The efficacy of this strategy was linked to specific shifts in the skin flora, notably an increase in the *Xanthomonas* genus and a prevention of the *Staphylococcus* proliferation typically seen during relapses.[6]

EMOLLIENTS+ AS AN ACTIVE BARRIER REPAIR STRATEGY

Emollients+ represent a significant therapeutic advancement in the management of ADs, functioning not merely as topical moisturizers but as active barrier therapies that target the disease's underlying pathophysiology.[2,5] Traditional emollient formulations provide a barrier to retain moisture, protect against irritants, and lack active ingredients.[2,3] Emollients+ formulations contain additional active, non-medicated ingredients, such as physiological lipids and bacterial lysates, that directly address the primary defects in AD pathophysiology.[2,3,7] By operating at multiple levels, including restoring the physical stratum corneum and rebalancing the skin microbiome, emollients+ promote structural repair and may help immune modulation.[2,5] This multi-modal capability distinguishes them from simple hydration strategies, positioning emollients+ as essential therapeutic interventions for long-term disease stabilization and flare prevention.[2,5]

REFERENCES:

1. Milani F, Sayag M, Jourdan E. Barrier repair therapy in atopic eczema: new evidences in improving skin functions with topical emolliency and hydration strategies. *J Clin Dermatol Ther*. 2015;2:011. **2.** Araviiskaia E, Pincelli C, Sparavigna A, Luger T. The role of a novel generation of emollients, 'emollients plus', in atopic dermatitis. *Clin Cosmet Investig Dermatol*. 2022;15:2705-2719. **3.** Wollenberg A, Barbarot S, Bieber T, et al. Consensus-based European guidelines for treatment of atopic eczema (atopic dermatitis) in adults and children: part I. *J Eur Acad Dermatol Venereol*. 2018;32(5):657-682. **4.** Cestari S, Correia P, Kerob D. Emollients "plus" are beneficial in both the short and long term in mild atopic dermatitis. *Clin Cosmet Investig Dermatol*. 2023;16:2093-2102. **5.** Prakoeswa CRS, Huda BKN, Indrawati D, et al. Effectiveness and tolerability of an emollient "plus" compared to urea 10% in patients with mild-to-moderate atopic dermatitis. *J Cosmet Dermatol*. 2025;24:e70051. **6.** Seité S, Zelenkova H, Martin R. Clinical efficacy of emollients in atopic dermatitis patients-relationship with the skin microbiota modification. *Clin Cosmet Investig Dermatol*. 2017;10:25-33. **7.** Wollenberg A, Christen-Zäch S, Taieb A, et al. ETFAD/EADV Eczema task force 2020 position paper on diagnosis and treatment of atopic dermatitis in adults and children. *J Eur Acad Dermatol Venereol*. 2020;34(12):2717-2744.

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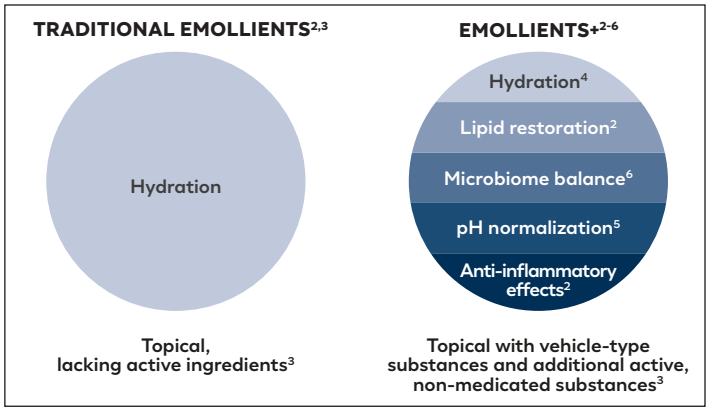

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