



Skin Solutions from the Inside

Atopic dermatitis—also known as eczema—is an extremely common skin condition which affects up to 20% of children and up to 5% of adults.^{1,2} Individuals typically first develop symptoms early in life, with up to 60% of cases diagnosed in the first year after birth.³ Symptoms include dry, red and itchy skin. In moderate to severe cases, the symptoms can result in significant impairment to quality of life.

Currently, the mainstay of treatment for atopic dermatitis is the use of emollients, plus topical steroids to treat mild to moderate symptoms. Other pharmaceutical therapies such as calcineurin inhibitors and systemic immunosuppressants can be used for more severe cases. But increasingly consumers—and particularly parents—are seeking non-pharmacological solutions to many common health concerns, including atopic dermatitis.

Rates of atopic dermatitis vary widely between different regions of the world, affecting up to 20% of children in some countries¹

More than 80 clinical trials have been published looking at the relationship between the microbiome and atopic dermatitis

Atopic dermatitis is associated with an increased risk of developing depression and anxiety⁴



Investigating the Gut Microbiome and its Role in Common Dermatology Conditions

The gastrointestinal microbiome—the trillions of microorganisms found in the GI tract—has been shown to play an important role in a number of skin conditions, including atopic dermatitis.⁵

Evidence shows that patients with atopic dermatitis have lower microbial diversity, reduced levels of *Bifidobacteria* and fewer short-chain fatty acids, all of which are known to contribute to the maintenance of epithelial barrier function and modulate an anti-inflammatory effect.^{6,7}

This opens up the exciting possibility of modulating the gastrointestinal microbiome to affect positive changes in the symptoms of atopic dermatitis.

STUDYING MICROBIOME SOLUTIONS WITH ADM PROBIOTIC FORMULATION ATOPIC DERMATITIS

ADM has a rapidly growing portfolio of clinical trial research relating to the role of the microbiome in skin health. In 2018, ADM published, in *JAMA Dermatology*, its first randomized, placebo controlled clinical trial examining the role of the unique Probiotic Formulation Atopic Dermatitis on the symptoms of atopic dermatitis in children. It enrolled 50 children aged between 4-17 years with moderate atopic dermatitis, who were given either the Probiotic Formulation Atopic Dermatitis (BPL1: *Bifidobacterium lactis* CECT 8145, ES1: *B. longum* CECT 7347, and BPL4: *Lactobacillus casei* CECT 9104), or an identical placebo, for 12 weeks.⁸

Published Clinical Trial Evidence

IMPROVEMENTS IN SCORAD INDEX*

96% of patients in the ADM Probiotic Formulation Atopic Dermatitis group showed an improvement in symptoms (measured by the SCORAD* index), compared to 46% in the placebo group.

After 12 weeks of follow-up, the mean reduction in the SCORAD index in the probiotic group was 19.2 points greater than in the control group.

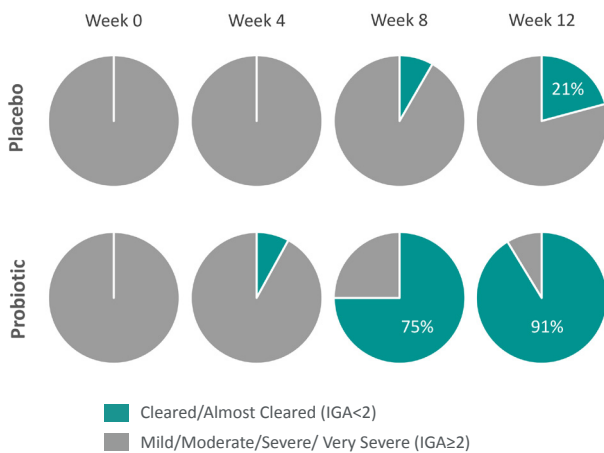
In relative terms, we observed a reduction in SCORAD of 83% in the probiotic group compared to a reduction of 24% in the placebo group (P < .001).

* SCORAD: The SCORAD index is a validated clinical tool for assessing the severity of atopic dermatitis. The maximum score is 103. Classification of severity of eczema is divided into mild (<25), moderate (25-50) and severe (≥50).



INVESTIGATOR GLOBAL ASSESSMENT

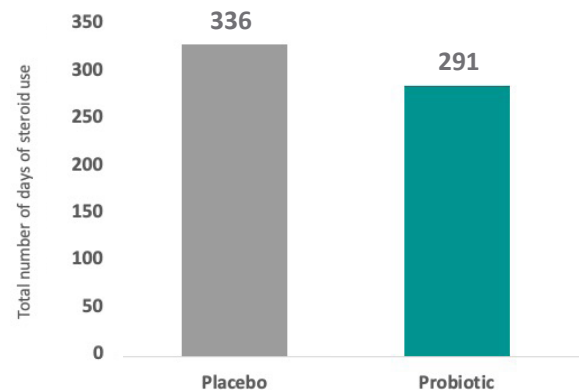
Over the 12 week study period, **91% of patients in the probiotic arm showed improvement to IGA score 0 or 1**, compared to 21% in the placebo group.



Topical steroids are frequently used to treat symptomatic flares of atopic dermatitis.

In this trial, there was a significant reduction in the use of topical steroid in the probiotic group compared to the control group with an odds ratio (OR) of 0.63, indicating a **relative risk reduction (RRR) of 37%**.

The reduction in topical steroids' use in this trial reached 45 patient-days in the probiotic group compared to placebo.



More Applications, More Benefits

ADM has a long history of conducting proprietary microbiome research, with an extensive library of pre-clinical and clinical trials to support our growing range of cutting-edge microbiome solutions.

The ADM Probiotic Formulation Atopic Dermatitis has been shown to:

- Reduce severity of atopic dermatitis (as measured by SCORAD index)
- Reduce the use of topical steroids

ADM Probiotic Formulation Atopic Dermatitis is the choice ingredient to integrate into dietary supplements or nutritional products targeting skin health. It comes in a bulk powder format and is designed for supplements, excipients, infant and clinical nutrition. It has a shelf life of 18 months.



ADM's strains come from natural sources, are non-GMO and safety evaluated. We will work with you to develop the ideal formulation for your end product. Our Atopic Dermatitis probiotic formulation is made from:

Ingredients	Concentration	Format
<i>Bi idobacterium lactis</i> CECT 8145	50B cfu/g 100B cfu/g	Bulk Powder
<i>Bi idobacterium longum</i> CECT 7347		
<i>Lactobacillus rhamnosus</i> CECT 9104		
Maltodextrin Sugar		

CLAIMS AND CERTIFICATIONS

- EU Approved
- Non-GMO
- Organic Compliant
- Halal
- Gluten Free
- Kosher

SOURCES

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- ⁴ Schonmann, Y. et al. (2020) *J. Allergy Clin. Immunol.* 8: 248-257
- ⁵ Lee, S. et al. (2018) *Allergy, Asthma & Immunol Res.* 10: 354-362
- ⁶ Watanabe, S. et al. (2003) *J. Allergy Clin. Immunol.* 111: 587-591
- ⁷ Nylund, L. et al. (2015) *Eur. J. Allergy Clin. Immunol.* 70: 241-244
- ⁸ Navarro-López, V. et al. (2018) *JAMA Dermatology*. 154: 37-43

ADM DELIVERS FOR YOU

An innovative leader in the microbiome field, ADM delivers future-forward nutrition fueled by science, with a complete range of solutions from prebiotics, to probiotic and postbiotic strains, all clinically documented to deliver consumer benefits.

An expansive pantry of health & wellness ingredients including biotics, botanical extracts, vitamins, minerals and more means you can deliver innovative, science-driven supplements and food and beverage formulations to meet consumers' evolving functional nutrition needs. With our vertically integrated supply chain to ensure the reliability and availability of high-quality products and our dependable customer service, you get industry-leading quality solutions to ensure your success.

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