



PDS-08® Pediatric Daily Synbiotic

9 Probiotic Strains + Dual-Phase Prebiotic • 24.5 Billion AFU

PDS-08® is the first 2-in-1 powdered synbiotic studied in a randomized, double-blind, placebo-controlled trial in a population aged 3-17 years. Most pediatric probiotics are single-strain and without prebiotics, which enable the growth of beneficial microbes. In contrast, PDS-08® represents an evolution in innovation.

PDS-08® is formulated with 9 clinically studied probiotic strains (24.5 billion AFU) and a dual-phase prebiotic comprised of 5g short- and long-chain fibers from inulin and fructooligosaccharides (FOS). Combining a multi-strain probiotic with prebiotics enhances the diversity of microbes and enables multiple health benefits by providing both beneficial bacteria and a direct energy source for the native microbiota.* Housed in biodegradable/commercially compostable sachets, which protect against oxygen and moisture, PDS-08® is easy to take on the go.

Standards in Quality, Safety, and Efficacy

- Clinically studied in their randomized, placebo-controlled trial to benefit digestive health, including occasional constipation*
- Additional strain-specific clinical benefits demonstrated in gut barrier integrity, dermatological health, and respiratory health*
- Contains less than 1g of sugar
- Engineered to survive digestion with a microencapsulation lipid coating on select strains
- No refrigeration necessary
- Tested for over 500 unique pesticides and 14 classes of allergens defined by the European Food and Safety Authority (EFSA)
- No-skip-lot third-party testing for potency, purity, and contaminants

Clinical Research

While clinically studied formulas are rare in pediatric probiotics, Seed’s setting a new standard. PDS-08® stands on a foundation of scientific validation and is formulated with scientifically backed, biologically active strain and prebiotic dosages. Seed’s research protocols and endpoints are designed in partnership with expert clinicians and key opinion leaders in the microbiome field.

Seed’s commitment goes beyond efficacy. Seed’s dedicated to redefining expectations of pediatric gut health. PDS-08® embraces a forward-thinking approach, with broad-spectrum strains, a kid-friendly fiber prebiotic, and an adaptable, powdered, single-dose format that fits seamlessly into real-world parenting.*

Strain-Specific*1-11

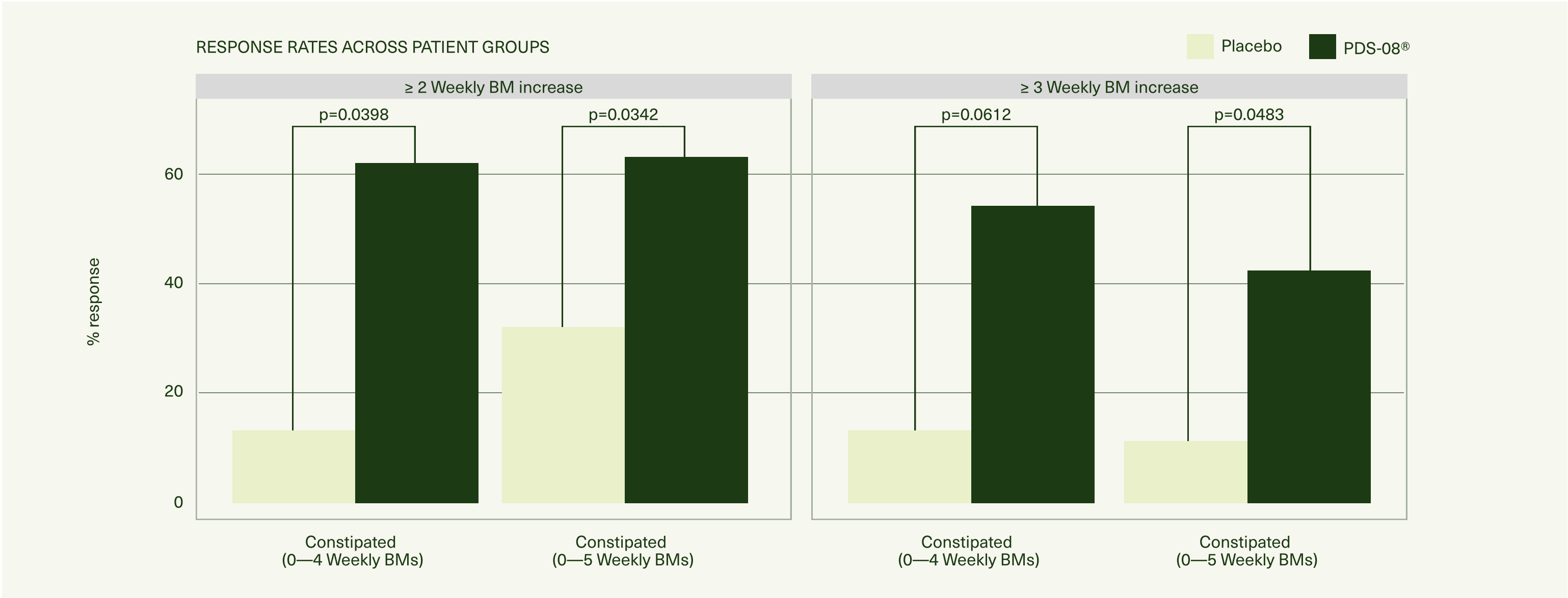
In addition to conducting a randomized, double-blind, placebo-controlled trial (RCT) on Seed’s PDS-08® formulation as a whole, all strains included have been independently studied in clinical trials for efficacy and tolerability in a pediatric population.

Composition-Specific*1

PDS-08® is the first 9-strain pediatric synbiotic to be studied in a 12-week RCT in a pediatric population with intermittent constipation. They designed their trial to evaluate bowel movement frequency, including constipation patterns.*1 Their trial observed no side effects or GI distress (such as pain, bloating, gas, or diarrhea) as commonly reported with many fiber-based dietary supplements, probiotics, and high-dose fermentable prebiotics.



Clinically-Studied Benefits



Digestive Health*1-5

Microbial diversity and gut barrier integrity are key markers of digestive health that can be altered by medication use, diet, and environmental exposures. PDS-08® is formulated to support overall gastrointestinal function, healthy regularity, stool consistency, occasional digestive discomfort, bloating, and occasional constipation.*

PDS-08® helps with Occasional Constipation and Key Beneficial Microbe*

- In a 12-week RCT children with fewer than 5 weekly BMs taking PDS-08® were up to 4.76x as likely to have an increase of 1–3 weekly BMs, compared to placebo (p < 0.05). PDS-08® significantly enriched *Bifidobacterium* (p<0.05) in the pediatric gut microbiome, as demonstrated via metagenomic shotgun sequencing.¹

Strain helps with Occasional Abdominal Discomfort and Gut Barrier Function*

- In an 8-week RCT, children with intestinal permeability, given a strain in PDS-08® had a 2x higher likelihood of achieving ideal gut barrier integrity compared to placebo (-40% vs -21%) (p < 0.03). Among the probiotic arm there was reduced frequency and intensity of occasional abdominal discomfort (p < 0.01). Improvements remained significant at the end of the 8-week follow-up (p < 0.02, and p < 0.001 respectively).³
- In a 4-week RCT with children with non-optimal intestinal permeability, participants given a strain in PDS-08® exhibited evidence of improved gut integrity and barrier function (59% active vs. 33% placebo) (p = 0.26).⁸

Mechanisms of Action:^{3,8}

PDS-08®’s digestive benefits are exerted through multiple mechanisms. First, microbial strain diversity, with abundant beneficial organisms. This broad-spectrum approach may competitively inhibit less favorable microbes. In turn, healthy microbes may produce health-promoting metabolites, and influence epithelial integrity via tight junction modulation. Additionally, prebiotic components encourage supportive microbiome ecology and beneficial metabolites for microbial and host cells.*

Dermatological Health*10,11

The gut-skin axis is recognized as an important factor of dermatological health. PDS-08® is formulated to support and maintain skin health and reinforce the gut-skin axis.*

Strains Support Healthy, Smooth, and Comfortable Skin*

- In a 16-week RCT with children with functionally and aesthetically bothersome skin, those given a strain in PDS-08® had smoother, clearer skin, and more comfort in quality of life measures (p < 0.001). In a similar 12-week RCT those given strains in PDS-08® had smoother, clearer, and healthier-appearing skin compared to the placebo arm (83% vs. 24% improvements; p<0.001).¹⁰⁻¹¹

Mechanisms of Action:^{*10,11}

PDS-08®’s dermatological benefits are implemented via intestinal mucosal immune support and signaling.*

Respiratory Health*6,7

The gut-lung axis is a bidirectional interaction between the gut microbiome and the lungs. Intestinal microbiome diversity in pediatric populations is linked to support immune responses in the lungs. PDS-08® is formulated to support healthy respiratory tract function and airway responses.*

Strain Supports a Healthy Response to Seasonal Challenges*

- In a 6-month RCT in children, those given strains in PDS-08® experienced significantly more support for healthy respiratory function.*

Mechanisms of Action:^{*6}

PDS-08®’s respiratory benefits result via immune cell support through interactions with toll-like receptors.*

Microbiota-Accessible Oligomeric Substrates™ (MAOS™) Prebiotic

Fiber is a key prebiotic and challenging to incorporate into a child's diet—95% of children and adults in the U.S. do not reach their daily recommended fiber intake.¹² The American Academy of Pediatrics (AAP) suggests an age-based calculation (patient age + 5 grams) to determine the minimum daily fiber intake in pediatric patients.¹³

PDS-08®'s dual-phase prebiotic, Microbiota-Accessible Oligomeric Substrates™ (MAOS™), contains short- and long-chain fibers without producing the gastrointestinal distress commonly reported with many fiber-based interventions.¹ With 5g of prebiotic fiber (from inulin and fructooligosaccharides) per dose, PDS-08® is a meaningful complement to a healthy diet.*

Mechanisms of Action:*

In the SHIME® (*in vitro*) model, MAOS™ prebiotic produces significant increases in the short-chain fatty acids, butyrate and propionate, and promotes the growth of beneficial *Bifidobacterium*. Clinical evidence suggests these favorable microbiome modifications drive the GI health benefits.*

Engineered to Survive Digestion¹⁴

When tested in SHIME®, PDS-08®'s microencapsulation results in nearly double the survivability through the small intestine.*

- Sensitive strains protected to preserve viability
- No refrigeration required

AFU Viable Cell Count

Seed measures viable cell count in AFU, or active fluorescent units, the most advanced and precise enumeration method for probiotics today.

- Colony forming unit (CFU) counts vary, and are best suited for single strain formulas
- AFU measures viable cells CFU cannot detect

Clinically Derived Dosage

All of PDS-08®'s strains and their dosages have been specifically studied in a pediatric population.*

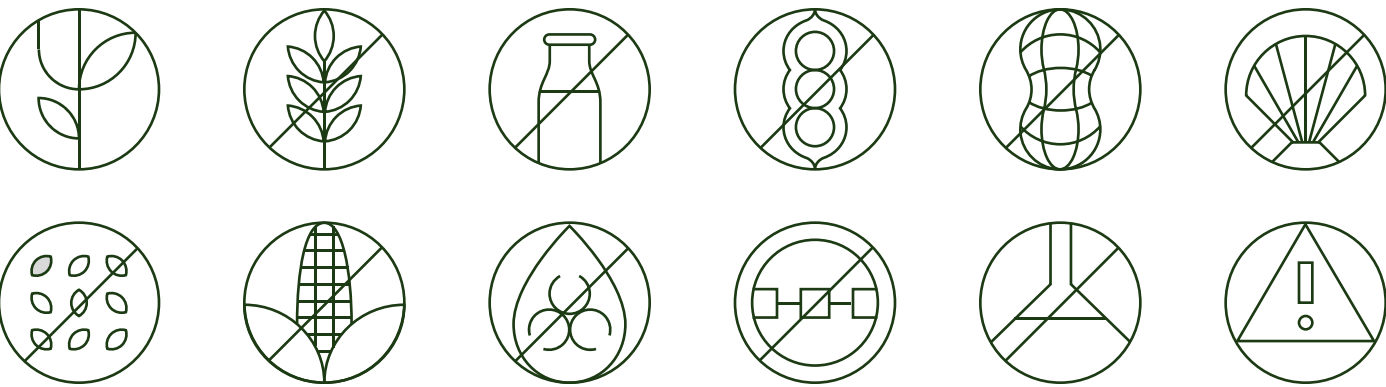
- Maximizes strain genetic profiles

Rigorous Quality and Allergen Testing

Seed conducts extensive verifications on PDS-08®, including a suite of third-party testing throughout the manufacturing process as well as on the finished product. Seed's battery of tests includes:

- Potency (AFU)
- Survivability (SHIME®)
- Contaminants (heavy metals and pesticides)
- all 14 EFSA-defined classes" with "over 20, as defined by EFSA
- Thermostability (temperature)
- Whole-genome sequencing

With 50+ quality assurance and quality control (QA/QC) checkpoints, Seed monitors purity under both U.S. and European protocols (including cGMP and HACCP) throughout the production cycle. This means they extensively test their ingredients prior to encapsulation, and each batch after manufacture.



Vegan, gluten-free, and tested for: dairy, soy, nuts, shellfish, sesame, corn, egg, fish, sulfiting agents, and glyphosate/AMPA. No binders. No preservatives. Prop. 65 compliant.

Supplement Facts			
Serving Size 1 Sachet (6.30g powder) Per Day			
Amount Per Serving	%DV for Children 3 Yrs		%DV for Children 4 Yrs & Up
Calories	15		
Total Carbohydrate	6g	4%*	2% ‡
Dietary Fiber	5g	33%*	18% ‡
Total Sugars	<1g	•	•
Includes 0g Added Sugars			
Probiotic Strains			
Gastrointestinal Immunity / Health Probiotic Blend*		168mg/19.5 Billion AFU*	
<i>L. rhamnosus</i> SD-GG-IT, <i>L. acidophilus</i> SD-NCFM-US, <i>B. lactis</i> SD-Bi07-US, <i>B. breve</i> SD-BR3-IT			
Respiratory Health Probiotic Blend*		30mg/3.5 Billion AFU*	
<i>B. breve</i> SD-B632-IT, <i>L. salivarius</i> SD-LS01-IT			
Dermatological Health Probiotic Blend*		15mg/1.5 Billion AFU*	
<i>B. lactis</i> SD-CECT8145-SP, <i>B. longum</i> SD-CECT7347-SP, <i>L. casei</i> SD-CECT9104-SP			
Total Probiotic Enumeration		24.5 Billion AFU*	
MAOS Microbiota-Accessible Oligomeric Substrates™ Prebiotic		6.09g*	
Molecular weight profiled inulin and fructooligosaccharides from chicory (<i>Cichorium intybus</i>) root.			
* Percent Daily Value (%DV) is based on a 1,000 calorie diet.			
‡ Percent Daily Value (%DV) is based on a 2,000 calorie diet.			
• Daily Value not established.			
AFU = Active Fluorescent Units (viable probiotic cell count) via flow cytometry.			
Probiotics remain active without refrigeration.			
Other Ingredients: Glyceryl fatty acid esters (for microencapsulation of certain probiotic strains).			

Dosing Instructions for Optimal Results

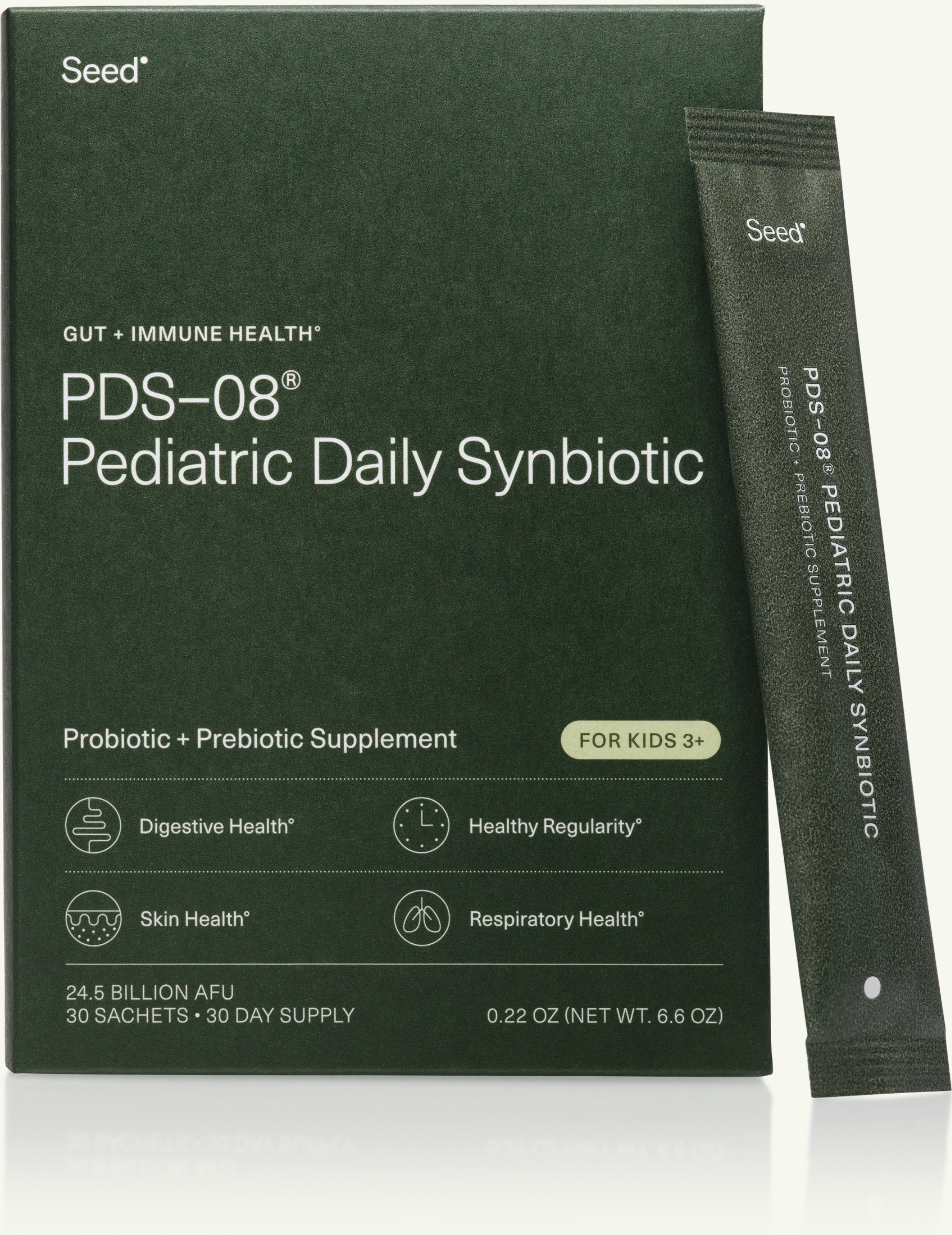
For Practitioners:

- Parents should pick the best time of day to start PDS-08® with the child. Mealtime may be easiest as it's optimal to consume PDS-08® with food.
- The full dose of PDS-08® is recommended to be consumed within 30 minutes. As the probiotics and prebiotics are exposed to moisture, they activate and start to interact with one another. If left to sit for too long, this could lead to digestive discomfort after consumption.

Directions for Patients:

- Open a sachet from the container.
- Pour into food or drink. Not hot, please!
- Mix well.
 - Food—stir until fully mixed in.
 - Drink—thoroughly shake in a closed bottle.
- Enjoy within 30 minutes. Yes, this means all of it!

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.



Tal Danino (Danino Lab). Bacteria on agar.

Pioneering Microbiome Science for Human and Planetary Health

Seed Health is a diverse, interdisciplinary collective of scientists, practitioners, designers, engineers, bioinformaticians, operators, and scientific communicators.

Seed advances frontier microbiome science from discovery to real-world impact to develop breakthrough innovations in biotics, living medicines, and environmental solutions.

Seed's development programs power a pipeline of innovations targeting health outcomes from infancy to aging, encompassing areas such as the gut microbiome, vaginal microbiome, skin microbiome, oral microbiome, infant health, and the gut-brain axis.*

With the understanding that *health is not just human*, Seed also founded SeedLabs to advance microbial innovations for some of our planet's greatest ecological challenges. Current projects include honeybee preservation, coral reef regeneration, plastic degradation, and carbon sequestration.

PDS-08® now available through Fullscript®

Visit fullscript.com/lp/seed-synbiotics for more information on how to offer PDS-08® to your patients. Contact practitioners@seed.com to access additional educational resources and clinician-to-clinician support.



Metagenomic shotgun sequencing	Shotgun sequencing techniques precisely verify which microbial strains are present and ensure the absence of antibiotic-resistant genes.
Prebiotic	A substrate that is selectively utilized by a beneficial microbe to optimize growth and/or produce microbiome-specific metabolite that yields a health benefit.*15
Probiotic	Live, beneficial microbes that yield a health benefit.*15
SHIME®	Simulator of the Human Intestinal Microbial Ecosystem (SHIME®) is the gold-standard model to replicate human digestion and the gut.
Synbiotic	Combination of microbes and substrates selectively metabolized by the native microbiome that yield a health benefit.*15

CITATIONS

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