



# HMF Baby F

## PROBIOTIC SUPPLEMENT

### Probiotic Supplement for Formula Fed Babies

- Safe for use during infancy
- Helps support gastrointestinal health
- Could promote a favorable gut flora
- 10 billion CFU per dose

### With Added Prebiotic Fibres

- Contains FOS and GOS, a prebiotic fibre similar to oligosaccharides naturally within breast milk
- FOS and GOS support the gastrointestinal microflora

**GENESTRA BRANDS HMF Baby F** is a probiotic supplement for formula fed children (1-4 years) that provides *Lactobacillus salivarius*, *Lactobacillus paracasei*, *Bifidobacterium bifidum* and *Bifidobacterium animalis* subsp. *lactis*, which help support intestinal/gastrointestinal health and could promote a favorable gut flora.<sup>16</sup> HMF Baby F contains added galactooligosaccharides (GOS), a type of prebiotic dietary fibre naturally found within breast milk.<sup>13</sup> Fructooligosaccharides (FOS) are also included for additional prebiotic fiber content.<sup>13</sup> HMF Baby F powder dissolves easily into milk or water, and is free of gluten and soy. Ideal for vegetarian children.

### Scientific Rationale:

Intestinal colonization of *Lactobacillus* and *Bifidobacterium* probiotic bacteria tends to be lower in infants with atopic dermatitis (AD) or allergies.<sup>1-3</sup> The composition of the intestinal microbiota influences early immune stimulation, and variations in gut colonization at early ages have been associated with the development of atopic disease.<sup>4</sup> Since the 1960s, the worldwide prevalence of AD has tripled - in the United States, approximately 10-20% of children are currently reported to have AD,<sup>5</sup> making it the most common chronic skin disease in children.<sup>6</sup> The peak incidence of AD occurs during the first year of life.<sup>6</sup> Clinical trial evidence supports the efficacy of supplementing infants with probiotics to prevent the development of atopic eczema,<sup>7,8</sup> as well as in the treatment of eczema symptoms.<sup>9</sup>

Daily supplementation with HMF Baby F's probiotic formulation was found to safely and effectively reduce atopic eczema incidence and skin prick sensitivity to common allergens in infants. In a randomised, double-blind, placebo-controlled, parallel group trial, 454 pregnant women at 36 weeks gestation were randomised to either the probiotic capsule treatment group (*Lactobacillus salivarius* CUL61  $6.25 \times 10^9$  colony forming units (CFUs), *Lactobacillus paracasei* CUL08  $1.25 \times 10^9$  CFU, *Bifidobacterium animalis* subsp. *lactis* CUL34  $1.25 \times 10^9$  CFU and *Bifidobacterium bifidum* CUL20  $1.25 \times 10^9$  CFU) or the placebo capsule treatment group.

Continued on reverse



### EACH SCOOP (1.1 g) CONTAINS:

- Probiotic Consortium**.....10 billion CFU
- Bifidobacterium bifidum* (CUL-20)
  - Bifidobacterium animalis* subsp. *lactis* (CUL-34)
  - Lactobacillus salivarius* (CUL-61)
  - Lactobacillus paracasei* (CUL-08)

Non-Medical Ingredients: Transgalactooligosaccharides (GOS) (from milk), fructooligosaccharides (FOS)  
 Contains: Milk

**Recommended Dose: Children (1-4 years):** In a glass, add water or milk to one scoop of HMF Baby F and mix. Take once daily with a meal, at least two to three hours before or after taking antibiotics, or as recommended by your healthcare practitioner.

**Product Size:** 66g Powder

**Product Code:** 10493

NPN 80048547



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GENESTRA BRANDS

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Participants began daily supplementation with either treatment until giving birth; participants' infants then began daily supplementation until 6 months of age. At 6 months and 2 years of age, skin prick testing (SPT) was performed using common food allergens (cow's milk, hen's egg) as well as positive (histamine) and negative controls. SPT allergen response was considered positive if wheal diameter was 3 mm or greater. The presence of atopic eczema was determined based upon the presence of one or more positive SPTs. In comparison with the infant participants in the placebo group, participants in the probiotic group experienced a statistically significant 57% decrease in atopic eczema. Participants in the probiotic group also experienced a significant 44% decrease in skin prick sensitivity to common food allergens.<sup>10</sup> Usage of HMF Baby F's formulation did not impact adverse event incidence, number of visits to the doctor, or mothers' assessment of infant health.<sup>11</sup> Based on these findings, the authors concluded that usage of the probiotic formulation was safe during pregnancy and early infancy.

These results expand upon the findings of several other clinical trials that have demonstrated the immunomodulatory and AD symptom-reducing effects of probiotics in infants with allergic diseases. In a similar study, daily supplementation with a probiotic mixture from 4-8 weeks prior to delivery and for the first 6 months of age significantly reduced the incidence of eczema diagnosis in infants.<sup>8</sup> In infants aged 1-3 with mild-to-moderate AD, daily supplementation with a probiotic mixture for 8 weeks significantly improved clinical symptoms of AD, reduced usage of topical corticosteroids and modulated lymphocyte levels.<sup>9</sup>

HMF Baby F contains a "synbiotic" mixture of both probiotics and probiotic fibre.<sup>12</sup> The addition of prebiotic fibres such as galacto-oligosaccharides (GOS) and fructo-oligosaccharides (FOS) has been demonstrated to selectively enhance the proliferation of certain prebiotic bacteria within the colon, in particular the Bifidobacteria species.<sup>12</sup> Human breast milk contains approximately 14 g/L of oligosaccharides, which are thought to modulate the intestinal microfloral composition of infants. While the World Health Organization

considers human breast milk as the nutritional gold standard for term infants,<sup>13</sup> not all infant formulas contain added prebiotic fibre and prebiotic oligosaccharides are only present in trace amounts in cow's milk. In addition to their bifidogenic effects, prebiotic fibres may help to inhibit the adhesion of pathogens to the epithelial surface of the digestive tract, and could have immunomodulatory effects. Human milk oligosaccharides include a complex mixture of over 200 different structures. Both FOS and GOS have prebiotic effects similar to the oligosaccharides found in breast milk.<sup>13</sup>

In a randomised, placebo-controlled trial of 60 children aged 2-14 with moderate to severe AD, daily supplementation with a synbiotic significantly improved AD symptom severity. The children were randomised to either a synbiotic capsule treatment group (2 x 10<sup>9</sup> CFU of *Lactobacillus salivarius* plus 475 mg FOS) or a prebiotic capsule control group (475 mg FOS plus 25 mg corn starch) for 8 weeks. Scoring of Atopic Dermatitis (SCORAD) questionnaires were completed at baseline prior to supplementation, on weeks 4 and 8 of supplementation and again at week 10 (2 weeks post-supplementation). Serum eosinophil cationic protein (ECP) levels were measured at baseline, and again at weeks 4 and 8 of supplementation. ECP is a ribonuclease produced by eosinophil white blood cells - ECP levels are elevated in individuals with allergic diseases, including atopic dermatitis.<sup>14</sup> Frequency of topical medication usage was assessed using a 5-point frequency questionnaire at weeks 0, 4 and 8. Compared with baseline measurements, by week 8 of supplementation participants in the synbiotic control group had significantly lower SCORAD scores, AD symptom intensity, medication usage frequency and ECP levels. SCORAD scores remained significantly reduced at week 10, 2 weeks prior to cessation of supplementation. SCORAD scores were also reduced significantly in the prebiotic treatment group at week 8, although SCORAD levels were significantly higher in comparison with the synbiotic treatment group.<sup>15</sup>

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