GENESTRA BRANDS®

HMF Multi Strain Powder

Probiotic Formula

17-strain probiotic combination

- Provides 16 billion CFU per dose
- Helps support gastrointestinal health
- Available in a once-daily powder format
- Free of artificial colours and flavours

HMF Multi Strain Powder offers a comprehensive combination of 17 proprietary probiotic strains. Each convenient, once-daily serving provides 10 strains of *Lactobacilli* and seven strains of *Bifidobacteria* to promote colonization in both the small and large intestines.[1] In one placebo-controlled trial, daily supplementation with HN019, a probiotic strain found in HMF Multi Strain Powder, promoted a healthy gut flora.[2] It significantly increased *Bifidobacteria* and *Lactobacilli* counts, while reducing the population of *Enterobacteria* (a genus that includes many pathogenic bacteria).[2] Another trial demonstrated that this strain supported gastrointestinal health as measured by improved whole gut transit time and abdominal comfort scores.[3] Similarly, HMF Multi Strain Powder contains CUL-60, CUL-21, CUL- 34 and CUL-20, which have been demonstrated in clinical trials to support intestinal comfort and promote a healthy microflora balance in the gastrointestinal tract.[4-6] HMF Multi Strain Powder is a great alternative for adults and children who dislike or have difficulty swallowing capsules.

EACH SCOOP (0.5 g) CONTAINS :

Probiotic Consortium	8 billion CFU
Lactobacillus acidophilus (CUL-60 & CUL-21)	5 billion CFU
Bifidobacterium animalis subsp. *lactis* (CUL-34) & *Bifidobacterium bifidum* (CUL-20)	1.25 billion CFU
Lactobacillus acidophilus (NCFM®)	0.5 billion CFU
Bifidobacterium animalis subsp. *lactis* (HN019)	0.5 billion CFU
Lactobacillus salivarius (CUL-61)	0.25 billion CFU
Lactobacillus rhamnosus (CUL-63)	50 million CFU
Lactobacillus gasseri (CUL-09)	50 million CFU
Bifidobacterium breve (CUL-74)	50 million CFU
Lactobacillus paracasei (CUL-08)	50 million CFU
Lactobacillus casei (CUL-06)	50 million CFU
Bifidobacterium animalis subsp. *lactis* (CUL-62)	50 million CFU
Lactobacillus plantarum (CUL-66)	50 million CFU
Lactobacillus fermentum (CUL-67)	50 million CFU
Bifidobacterium longum (CUL-75)	50 million CFU
Bifidobacterium longum subsp. *infantis* (Bi-26)	50 million CFU

Non-Medicinal Ingredients: Potato maltodextrin

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Recommended Dose

Adults, Adolescents and Children (3 years and older): In a glass, add water to 2 level scoops and mix. Take once daily, at least 2 to 3 hours before or after taking antibiotics, or as recommended by your healthcare practitioner.

Size
60 g Powder

Product Code
10387

NPN 80084030

Non GMO · Gluten Free · Soy Free · Dairy Free · No FOS · Vegan

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Probiotic Formula

Scientific Rationale:

The human intestinal tract contains more than 400 bacterial species.[1] The distribution of these microorganisms throughout the gut is not uniform, with the concentration and diversity of species increasing towards the distal end of the GI tract.[2] In addition, certain species preferentially colonize specific areas of the digestive system.[3] Compared to other strains, *Lactobacilli* survive better in acidic environments, and are one of few species present in the stomach and duodenum.[3] In contrast, *Bifidobacteria* are found in larger numbers in the colon, where they play a role in fermentation and complex carbohydrate digestion.[3]

The composition of the gut microflora can be altered by a number of factors, including diet, stress, aging and travel.[1] These factors may cause an imbalance in the intestines, wiping out the beneficial bacteria and allowing pathogenic bacteria to multiply.[1] This can lead to common gastrointestinal complaints, including bloating and gas.[4] Probiotics are live microorganisms that contribute to a healthy microflora composition and support gastrointestinal health.[1] Studies have shown that they support the growth of beneficial bacteria in the intestines, while limiting the proliferation of pathogenic bacteria.[1] They act by reducing the pH and stimulating the production of antimicrobial peptides in the intestine.[6] In addition to decreasing bacterial survival, probiotics strengthen the epithelial barrier.[6] They mediate the integrity of tight junctions and increase mucin release, which in turn regulates permeability and prevents pathogens from adhering to cells.[6,7] This course of action decreases the movement of bacteria from the intestines into circulation.[8]

HMF Multi Strain Powder is formulated using probiotic microorganisms that have been used in a wide body of clinical research, including HN019, NCFM®, and Genestra HMF's proprietary *Lactobacillus* and *Bifidobacterium* probiotic consortium.[9-15] Studies demonstrate that these strains effectively contribute to a healthy gut flora and support gastrointestinal health.[9-14]

In one randomized, double-blind, placebo-controlled trial, supplementation with HN019 significantly contributed to a favourable gut flora in aging adults.[9] Elderly participants (over 60 years of age) consumed a placebo or one of three probiotic supplements daily for four weeks [low (6.5×10^7 CFU), medium (1.0×10^9 CFU) or high (5.0×10^9 CFU)].[9] Probiotic supplementation significantly increased the mean number of fecal *Bifidobacteria* when compared to baseline levels.[9] As the levels of *Bifidobacteria* naturally decrease with age, supplementation with HN019 may represent an easy way to promote its proliferation in the intestines.[9]

In addition, HN019 intake significantly increased *Lactobacilli* and *Enterococci* counts in the high and medium groups after four weeks.[9] As *Bifidobacteria* produce acetate and lactate, they may also support the growth of *Lactobacilli*.[9] In contrast, high-dose probiotic supplementation decreased the level of fecal *Enterobacteria* (potentially pathogenic bacteria whose levels naturally increase with age).[9] Therefore, daily supplementation with HN019 can contribute to a healthy gut flora composition in older adults.[9]

Daily supplementation with HN019 also promoted gastrointestinal health as measured by improved whole gut transit time (WGTT) and gastrointestinal comfort.[10] In this randomized, placebo-controlled trial, adults consumed either a placebo or probiotic capsule (1.8 billion CFU of HN019) daily for two weeks.[10] Prior to supplementation, mean WGTT in the probiotic group was 59.5 hours; after two weeks of probiotic supplementation, the WGTT was 41.5 hours, an approximately 30% decrease.[10] Regularity, abdominal pain and flatulence symptoms also significantly improved after two weeks of probiotic supplementation. Constipation decreased by 35.8%, abdominal pain decreased by 26.6%, irregular bowel movements decreased by 22.8%, and flatulence decreased by 15.3%.[10] Combined supplementation with HN019 and NCFM® (a minimum of 10^9 CFU of each strain, plus 3.6 g of the polysaccharide polydextrose daily for two weeks) also significantly decreased colonic transit time when compared to a placebo in a randomized, double-blind, controlled study.[11]

Genestra HMF's proprietary probiotics were also reported to modulate the intestinal microflora composition in a double-blind, placebo-controlled trial.[12] Participants received either a placebo or probiotic supplement (containing CUL-60, CUL-21, CUL-34 and CUL-20) daily for 21 days.[12] Probiotic supplementation significantly supported a healthy microflora composition.[12] Additional randomized, double-blind, placebo-controlled trials found that daily supplementation with the same probiotic strains helped to support the growth of beneficial strains, contribute to a healthy microflora composition, and support gastrointestinal comfort.[13, 14]

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