



GENESTRA  
BRANDS®



# HMF Bifido Capsules

## Probiotic Formula

### Six-strain *Bifidobacteria* combination

- Provides 40 billion CFU per dose
- Convenient once-daily capsule format
- Supports gastrointestinal health
- Includes proprietary, research-driven strains

HMF Bifido Capsules offer six proprietary *Bifidobacteria* strains to support probiotic colonization in the large intestine.<sup>1</sup> *Bifidobacteria* are normally present in the gut from birth to old age, where they play an important role in gastrointestinal health.<sup>2</sup> *Bifidobacteria* help to mediate carbohydrate fermentation in the large intestine and contribute to the production of important short-chain fatty acids (SCFAs), including acetate and lactate.<sup>3</sup> Although they are the most abundant genus present in the guts of healthy infants, *Bifidobacteria* concentrations decrease as individuals age, with greatest declines observed in the elderly.<sup>2</sup> Clinical research suggests that *Bifidobacteria* supplementation can promote a healthy gut flora composition and support gastrointestinal health.<sup>3</sup> HMF Bifido Capsules provide highly researched probiotic strains such as BI-04, along with CUL-34 and CUL-20, which have been demonstrated in clinical trials to contribute to a favourable gut flora.<sup>4-6</sup>

#### EACH CAPSULE CONTAINS:

<b>Probiotic Consortium</b> .....	40 billion CFU
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> (CUL-34) & <i>Bifidobacterium bifidum</i> (CUL-20) .....	16 billion CFU
<i>Bifidobacterium breve</i> (CUL-74) .....	12 billion CFU
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> (BI-04) .....	8 billion CFU
<i>Bifidobacterium longum</i> subsp. <i>longum</i> (CUL-75) .....	2 billion CFU
<i>Bifidobacterium longum</i> subsp. <i>infantis</i> (BI-26) .....	2 billion CFU

Non-Medicinal Ingredients: Cellulose, hypromellose, stearic acid

#### Recommended Dose

Adults, Adolescents and Children (6 years and older): Take 1 capsule daily or as recommended by your healthcare practitioner. Take at least 2 to 3 hours before or after taking antibiotics.

#### Size

30 Vegetarian Capsules

#### Product Code

10425

NPN 80083003



#### REFERENCES

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3. Bottacini, F, van Sinderen, D, Ventura, M. Biochem J. 2017; 474(24): 4137-4152.
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6. Williams, EA, Stimpson, J, Wang, D, Plummer, S, Garaiova, I, Barker, ME, Corfe, BM. Aliment Pharmacol Ther. 2009; 29(1): 97-103.

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# HMF Bifido Capsules

## Probiotic Formula

### Scientific Rationale:

The human intestinal tract contains more than 400 bacterial species.<sup>1</sup> This microflora composition can be altered by a number of factors, including diet, stress, antibiotic use, digestive disorders, aging and travel.<sup>1</sup> These factors may cause an imbalance in the intestines, wiping out the beneficial bacteria and allowing pathogenic bacteria to multiply.<sup>1</sup> This can lead to common gastrointestinal complaints, including bloating and gas.<sup>2</sup> Research suggests that supplementation with *Bifidobacteria* can promote a healthy gut flora composition and help support gastrointestinal health.<sup>3</sup>

*Bifidobacteria* are normally present in the gut from birth to old age.<sup>3</sup> As they can be transmitted from the mother's vagina, gastrointestinal tract or breast milk, they are one of the first genera to colonize the infant gut.<sup>4,5</sup> In fact, *Bifidobacteria* are the most abundant genus present in the guts of healthy infants, and are present in higher amounts in vaginally-born and breast-fed infants when compared to those who are caesarean-delivered or formula-fed.<sup>3</sup> As infants consume solid foods, typically around 6 months of age, bacterial diversity in the gut expands; however, the level of *Bifidobacteria* falls to 30-40% and continues to decrease throughout childhood and adolescence.<sup>4</sup> *Bifidobacteria* populations decrease further in adulthood (2-14% relative abundance), but remain stable before dropping again in the elderly.<sup>3</sup> In addition to the natural reduction in microbial diversity associated with old age, the high prevalence of antibiotic use in the elderly significantly impacts the intestinal microbiota composition, further reducing *Bifidobacteria* levels and impacting overall health.<sup>3</sup>

*Bifidobacteria* typically colonize the large intestine, where they help to mediate carbohydrate fermentation.<sup>5</sup> As a result of their involvement in host metabolism, they contribute to the production of metabolites such as vitamins, antioxidants, polyphenols and short-chain fatty acids (SCFAs), which positively affect the gut.<sup>5</sup> Acetate and lactate are the primary fermentation end-products associated with *Bifidobacteria*-mediated carbohydrate metabolism.<sup>5</sup> Various colonic bacteria convert these

metabolites into butyrate, the major source of energy for colonocytes.<sup>5</sup> Butyrate further contributes to gut health by promoting the production of mucin and upper gut motility, while regulating nuclear factor kappa B (NFκB) activity.<sup>5</sup> In addition, *Bifidobacteria* help to strengthen the epithelial barrier and may competitively exclude pathogens to further maintain gut health.<sup>3,5</sup>

HMF Bifido Capsules provide a combination of six proprietary *Bifidobacteria* strains from a blend of four different *Bifidobacteria* species. Included in this formula is BI-04, a highly researched probiotic strain. In addition, each capsule offers CUL-34 and CUL-20, which have been selected based on their superior adherence to the gut lining and natural resistance to pH and bile acid.<sup>6</sup>

In one double-blind, placebo-controlled trial, consumption of a probiotic supplement (containing CUL-34 and CUL-20) for 21 days significantly modulated the intestinal microflora composition, supporting a favourable gut flora.<sup>7</sup> An additional randomized, double-blind, placebo-controlled trial found that daily supplementation with the same probiotic strains also helped to support the growth of beneficial strains.<sup>8</sup>

Furthermore, these probiotic strains significantly promoted intestinal comfort in an eight-week long, double-blind, randomized, placebo-controlled study.<sup>9</sup> Participants consumed either a placebo or probiotic capsule (containing CUL-34 and CUL-20) once daily for eight weeks.<sup>9</sup> In comparison with baseline values, probiotic supplementation significantly improved intestinal discomfort scores, including a 22% decrease in days with intestinal discomfort, 32% improvement in satisfaction with bowel habits and 30% improvement in quality of life scores.<sup>9</sup> These improvements were also significantly greater when compared to placebo values.<sup>9</sup>

#### REFERENCES

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2. Fink, RN, Lembo, AJ. Curr Treat Options Gastroenterol. 2001; 4(4): 333-337.
3. Arboleya, S, Watkins, C, Stanton, C, Ross, RP. Front Microbiol. 2016; 7: 1204.
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