



GENESTRA  
BRANDS®



# HMF Metabolic

## Proven to support healthy weight management<sup>†‡</sup>

- Promotes healthy body weight, BMI and waist circumference<sup>‡</sup>
- Supports a healthy lifestyle<sup>†</sup>
- Maintains upper respiratory tract health<sup>‡</sup>
- Provides 50 billion CFU from a combination of five proprietary strains
- Convenient, once-daily capsule format

HMF Metabolic was specifically designed to support healthy weight management. It offers a combination of five proprietary probiotic strains that was shown to promote healthy body weight, BMI and waist circumference in one of the largest human trials on the effects of probiotics on weight management. In this randomized, double-blind, placebo-controlled trial, subjects reported an average decrease in body weight of 1.3 kg, with greater decreases observed in overweight, female and older participants (over 50 years of age). This probiotic combination also promoted overall wellness, increasing quality of life scores while supporting upper respiratory health. Preclinical research involving these strains also suggests a beneficial role in maintaining a healthy weight on a high-fat diet and promoting healthy lipid metabolism. Available in a convenient, once-daily capsule format, HMF Metabolic can be easily added to any lifestyle regimen to promote a healthy body composition and maintain good health.<sup>‡</sup>

This formula offers the four core HMF Probiotic strains, which are backed by over 20 years of clinical evidence.

- *Lactobacillus acidophilus* (CUL-60 & CUL-21)
- *Bifidobacterium animalis* subsp. *lactis* (CUL-34)
- *Bifidobacterium bifidum* (CUL-20)

In addition to providing the GI benefits you've come to expect from all HMF Probiotics, this formula offers additional support with the beneficial probiotic strain *Lactobacillus plantarum* (CUL-66).

NEW

### Supplement Facts

Serving Size 1 Capsule  
Servings per Container 30

	Amount Per Serving	% DV
<b>Probiotic Consortium</b>	50 billion CFU	*
<i>Lactobacillus acidophilus</i> (CUL-60 & CUL-21)		
<i>Lactobacillus plantarum</i> (CUL-66)		
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i> (CUL-34)		
& <i>Bifidobacterium bifidum</i> (CUL-20)		

\* Daily Value (DV) not established

Other Ingredients: Cellulose, hypromellose, sunflower lecithin, silica

### Recommended Dose

Take 1 capsule daily or as recommended by your health professional.

### Size

30 Vegetarian Capsules

### Product Code

10341



### Warning

If you have an immune-compromised condition, do not use. If you are pregnant or lactating, have any health condition or are taking any medication, consult your health professional before use. If symptoms of digestive upset occur, stop use and consult your health professional. Keep out of the reach of children.

Tried, tested and true.

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<sup>†</sup>Provides weight management support as part of a healthy lifestyle with a reduced-calorie diet and regular exercise.

<sup>‡</sup>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.

# HMF Metabolic

## Scientific Rationale:

Weight gain results from an imbalance between energy intake and expenditure.<sup>1</sup> In addition to genetic and hormonal mechanisms, lifestyle factors play a large role in weight gain.<sup>1</sup> Specifically, the Western lifestyle – which is associated with decreased physical activity and greater intake of fatty, caloric foods and an absence of dietary fiber – has been linked to the development of energy imbalances.<sup>2</sup>

An individual's weight may also be associated with their gut microflora composition.<sup>1</sup> Research has reported that leaner individuals have a greater bacterial diversity as well as a higher proportion of *Bacteroidetes*.<sup>1</sup> Likewise, the intestinal microflora can be impacted by dietary intake.<sup>1</sup> Animal models report that a typical Western diet (high in fat and sugar) leads to a greater proportion of *Firmicutes* and a reduced number of *Bacteroidetes*, while a low-calorie diet aimed at supporting weight management may increase *Bacteroidete* populations in certain individuals.<sup>1</sup> Additionally, animal and human models have shown that dietary changes, including replacing a low-fat, plant-based diet with a typical Western diet, can shift this microbial composition within a day, resulting in altered intestinal function.<sup>1</sup>

The intestinal microflora has been found to play an important role in metabolic function and energy balance of the host, as it helps absorb, store and spend energy derived from the diet.<sup>1,2</sup> As a result, alterations in microbial populations may lead to changes in energy metabolism and body weight.<sup>1,2</sup> Probiotics are well-recognized for their ability to support gastrointestinal health, including support for intestinal barrier function, competition with other microorganisms, vitamin synthesis and the immune system.<sup>2</sup> Recent research has also focused on the ability of probiotics to help maintain healthy weight by promoting healthy gut flora; however, the favorable actions of probiotics may be specific to the species and strains.<sup>2,4</sup>

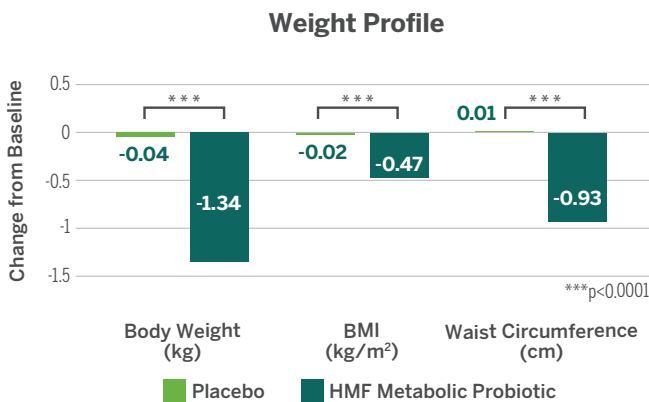
HMF Metabolic is formulated with proprietary HMF probiotics, which have been shown to support healthy metabolism across all three levels of research, including one of the largest human studies on the effects of probiotics on weight management.<sup>3-5</sup> In this randomized, double-blind, placebo-controlled

study, 220 participants 30-65 years old consumed HMF Metabolic's probiotic formula daily for six months, without changing their normal diet and exercise regimes.<sup>3</sup> Probiotic supplementation was demonstrated to significantly reduce body weight (-1.3 kg), body mass index (BMI; -0.47 kg/m<sup>2</sup>), waist circumference (-0.93 cm), and waist to height ratio (-0.006) when compared to the placebo (Figure 1).<sup>3</sup> Subgroup analyses revealed greater weight loss after probiotic intake in participants who were overweight, over 50 and female; however, the highest weight loss (nearly 4% of body weight) when compared to the placebo was observed in older participants with the highest baseline lipid level.<sup>3,††</sup>

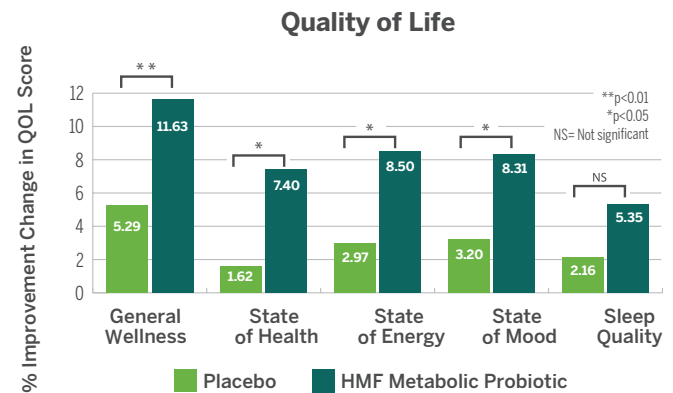
In addition to these beneficial effects on weight management, probiotic supplementation significantly improved quality of life (QOL) measures after three months, including general wellness and states of health, energy and mood (Figure 2).<sup>3</sup> Likewise, probiotic intake significantly supported upper respiratory tract health, including measures of respiratory and nasal function, as well as muscle, cranial and ear comfort.<sup>3</sup> HMF Probiotics also significantly supported upper respiratory tract health when combined with vitamin C in a six-month randomized, double-blind, placebo-controlled trial.<sup>6,††</sup>

Results of this study are in line with other studies investigating the effects of probiotics on weight management.<sup>7,8</sup> When compared to studies included in two recent meta-analyses, this study had a longer duration, larger study population, and led to greater mean weight loss (1.3 kg compared to 0.59 and 0.6 kg).<sup>7,8</sup> Collectively, this demonstrates the potential of probiotics, including HMF Metabolic's probiotic formula, to support healthy body composition.<sup>††</sup>

Favorable effects on body weight may also be associated with healthy metabolic profiles, including the promotion of healthy lipid metabolism.<sup>1</sup> Preclinical research involving HMF Metabolic's probiotic strains suggest these microorganisms may contribute to healthy lipid metabolism by supporting healthy bile metabolism and gene expression.<sup>4,5,†</sup>



**Figure 1:** Supplementation with HMF Metabolic's probiotic formula significantly reduced body weight, BMI and waist circumference.<sup>‡</sup>



**Figure 2:** Supplementation with HMF Metabolic's probiotic formula significantly improved QOL scores, including general wellness and states of health, energy and mood.<sup>‡</sup>

### REFERENCES

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