

# Probiotic 7-in-1™

## Recommended Use:

- ▶ Dysbiosis, candida
- ▶ Constipation, diarrhea
- ▶ Allergies, atopic dermatitis
- ▶ Immuno-modulating
- ▶ Lactose intolerance
- ▶ Upper respiratory infections
- ▶ Urinary tract infection (UTI)
- ▶ Vaginal yeast infections
- ▶ Digestive issues: H. pylori (ulcers), leaky gut, IBS

Our gut is home to trillions of microorganisms, with over 400 different species co-existing within the gastrointestinal tract. Beneficial intestinal bacteria are specialized microflora, also known as probiotics. These 'friendly' bacteria are absolutely essential for life; with digestion of food, manufacturing and absorption of nutrients, detoxification, and the proper functioning of the highly evolved localized immune system dependant on them.

An unhealthy gut and poor bacterial flora is common due to modern lifestyle. When intestinal mucosa or healthy flora become altered (through diet, stress, antibiotic and antifungal medication, steroids, and oral contraceptive use) opportunity opens up for pathogenic microorganisms to flourish and populate the gut, creating unfavourable changes to the gastrointestinal tract and overall health. Restoring a healthy gut and balanced intestinal flora with probiotics will lead to proper digestion, regularity, a strong immune system.

Probiotic 7-in-1 has been uniquely designed to incorporate seven different strains of healthy bacteria. The blend of Lactobacilli, Lactococci, Streptococci, and Bifidobacteria probiotics produce a broad spectrum approach to populate the small intestine through to the colon, thus balancing the entire intestinal flora. Since the beneficial probiotic effect is strain dependant, with each strain serving a specific inhibition purpose, this combination acts synergistically to control opportunistic (pathogenic) bacteria and support the body's natural defense system.

The Institut Rosell, a pioneer in probiotic manufacturing, produces Probiotic 7-in-1 using specialized technology to ensure probiotic survival and biological activity.

They have developed a shelf stable process which dramatically enhances the survival rate of probiotic bacteria at room temperature (therefore no refrigeration required) and strains of probiotics that resist the negative actions of oxygen, gastric acid, and bile salts, thereby ensuring balanced colonization of these strains throughout the ileum and colon.

## The Characteristics of the Probiotics Strains:

The Lactobacillus genus is found in the intestinal tract (small intestine and colon) and as part of the oral and vaginal microflora. The main characteristics including maintenance of a healthy and balanced intestinal microbiota, reduce incidence of intestinal infections, prevention of intestinal microbiota problems and diarrhea related to antibiotic treatment, and contributes to the modulation of specific and non-specific immune defenses.

The Bifidobacterium genus is found in the colon and is the predominant intestinal flora of healthy newborns that are breastfed, representing more than 95% of all bacteria present. However, the number of these organisms diminishes with time (starting from weaning) to eventually represent an average of 25% of a healthy individual's intestinal flora. The main characteristics include prevention and reduction of diarrhea related to antibiotic treatment (including due to rotavirus in children), and contributes to the modulation of specific and non-specific immune defenses.

Streptococcus thermophilus is found in the mouth and intestinal tract and is one of the two bacteria required to make yoghurt. It produces lactic acid (only L(+) isomer) and folate during fermentation, which is an essential requirement for the growth and colonization of Lactobacilli in the mouth. The main characteristics include creating a growth environment for Lactobacilli and express competitive exclusion properties against pathogens.

## Research confirms that probiotics have broad clinical effects

*Upper respiratory infections: Oral consumption of Lactobacillus acidophilus,*



### Medicinal Ingredients: Each vegetarian capsule contains 2 billion active cells:

Lactobacillus acidophilus	400 million cfu
Lactococcus lactis	600 million cfu
Bifidobacterium breve	200 million cfu
Bifidobacterium bifidum	100 million cfu
Lactobacillus rhamnosus	200 million cfu
Streptococcus thermophilus	200 million cfu
Bifidobacterium longum	200 million cfu

**Non-Medicinal Ingredients:** Malto-dextrin, magnesium stearate, ascorbic acid, skim milk, soy peptone, sucrose, hydroxypropyl methylcellulose (vegetarian capsule shell).

**Caution/Warnings:** Discontinue use and consult a health care practitioner if symptoms of digestive upset (i.e. diarrhea) occur, worsen or persist beyond 3 days. Do not use this product if you have a milk or soy allergy.

**Contraindications:** Do not take during pregnancy or breastfeeding without the advice of a practitioner. Do not use if you are experiencing nausea, fever, vomiting, bloody diarrhea or severe abdominal pain, or if you have an immune-compromised condition (i.e. AIDS, lymphoma, or patients undergoing long-term corticosteroid treatment).

**Recommended dose (Adult):** Take 1 - 2 capsules two times a day, or as directed by a health care practitioner.

NPN 80065809 • 90 Capsules



Lactobacillus rhamnosus, Streptococcus thermophilus, and Bifidobacterium species together decreased potentially pathogenic nasal bacteria by 19% ( $p < 0.001$ ) after three weeks of use. This suggests that probiotics may be helpful in preventing upper respiratory infections.<sup>2</sup>

*H. pylori* infections: Lactobacillus acidophilus alone may be an excellent natural adjunct to the standard seven-day triple drug therapy (rabeprazole, clarithromycin, amoxicillin) used in the treatment of *H. pylori* infection. A recent study concluded that combining *L. acidophilus* with the drugs significantly increased the eradication rate to 88% (52/59 patients) ( $p = 0.003$ ) compared to only 72% (42/58) using the drug combination alone.<sup>3</sup>

Chronic constipation: Lactobacillus acidophilus can be used effectively by the elderly in the treatment of chronic constipation - with 75% of patients who received the probiotic reporting that they had an improvement in the rate of their bowel movements and a reduction in the need for laxative medication.<sup>4</sup>

Diarrhea and carbohydrate digestion: Lactobacillus acidophilus, Bifidobacterium breve and Streptococcus thermophilus are effective for cases of diarrhea. In children with acute diarrhea, the addition of *L. acidophilus* (along with an oral rehydration solution) decreased the average duration of diarrhea to 43.4 hours versus 57.0 hours in the placebo group.<sup>5</sup> Another study showed that the combination of Bifidobacterium breve and Streptococcus thermophilus given to infants aged 5 to 24 months, over a 17 month period, resulted in significantly decreased incidence of diarrhea. Thirty-one percent (8/26) of infants who received the placebo developed diarrhea during the study compared to just 7% (2/29) for the group receiving the probiotic formula ( $p = 0.035$ ).<sup>6</sup> Scientists have also shown that Bifidobacterium longum supplementation may be helpful in the digestion of complex carbohydrates thereby decreasing gastrointestinal

gas and bloating.<sup>7</sup> Together both Bifidobacteria and Lactobacilli strains provide synergistic care that promotes both gastrointestinal health and increased overall wellness.

Atopic dermatitis: Bifidobacterium breve caused significantly reduced incidence of allergic skin symptoms ( $p=0.076$ ) in children with atopic dermatitis after 1 month of therapy compared to placebo.<sup>8</sup>

Lactose intolerance: it has been reported that 9 out of 10 children experienced a reduction in symptoms of lactose intolerance<sup>9</sup> when consuming milk inoculated with *L. acidophilus*.

Immunomodulation and increased HDL: Lactobacillus rhamnosus is involved in immunomodulation. Administration of this latter strain in either low fat milk or lactose hydrolyzed low fat milk to 52 volunteers ranging in age from 44 to 80 years of age, increased WBC phagocytic and NK activity by 19/15% and 71/147% respectively after 3 weeks of use.<sup>10</sup> In addition to the immunological benefits seen with *L. rhamnosus*, 300 grams per day of yogurt, containing the active cultures Streptococcus thermophilus and Lactococcus lactis, increased HDL concentrations by 0.3 mmol/L in 18 women after 6 months of therapy ( $p = 0.002$ ).<sup>11</sup>

Colon inflammation and immunity: Lactobacilli species are found throughout the intestinal tract while Bifidobacteria are found primarily in the colon. Scientists have estimated that 25% of the total gut micro flora is comprised of bifidobacteria. Research has shown that Bifidobacterium bifidum, in combination with *L. acidophilus*, not only decreased colonic inflammation and boosted immunity in geriatric patients<sup>12</sup>, but also decreased blood ammonia levels and improved psychological status in patients with hepatic cirrhosis<sup>13</sup>.

PROBIOTIC STRAIN	INDICATION	MODE OF ACTION
<b>Lactobacillus acidophilus</b>	Gut health Female health	Constipation, diarrhea in children Female health (UTI and prevention) Maintains intestinal barrier, restores intestinal flora
<b>Lactobacillus rhamnosus</b>	Gut health Immune health Female health	Gastrointestinal discomfort, lactose intolerance Immuno-modulating, inhibits pathogens and infections Female health (UTI, bacterial vaginosis, candidiasis)
<b>Lactococcus lactis</b>	Immune health	Increases HDL cholesterol Antimicrobial against pathogens (bacteria, virus)
<b>Bifidobacterium bifidum</b>	Gut health (including children) Immune health	Immuno-modulating, inhibits pathogens and infections Atopic dermatitis, diarrhea in children
<b>Bifidobacterium breve</b>	Gut health (including children)	Immuno-modulating, inhibits pathogens and infections Atopic dermatitis, diarrhea in children
<b>Bifidobacterium longum</b>	Gut health Immune health Gut Inflammation	Immuno-modulating, inhibits pathogens and infections Reduces inflammation Restores intestinal flora Carbohydrate digestion, decreases gas and bloating
<b>Streptococcus thermophilus</b>	Gut health Oral health	Lactose intolerance, diarrhea in children Creates favourable environment for lactic acid bacteria

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