Pro-**Urgency**

Code: FE1798 – 30 enteric-coated vegetable capsules

PRO-URGENCY is an exclusive formulation of 10 complementary and clinically proven probiotic cultures. It's one of the most powerful probiotic formulas for complete re-establishment of intestinal flora, or complete restart, for the treatment of diseases such as irritable bowel syndrome (IBS), diarrhoea, constipation and colitis, or for post-antibiotic use. The maintenance of intestinal flora is very important in order to maximize the absorption of nutrients, vitamins and electrolytes.

This group of gram-positive probiotic bacteria facilitates the elimination of pathogenic bacteria (like *E. Coli*) and viruses, decreases toxins such as ammonia from nitrogen digestion for protein synthesis, and improves immune system function (80% of immune system function originates in the intestines), preventing many serious diseases.

Irritable bowel syndrome is a gastrointestinal problem which, in developed countries, affects up to 15% of adults and can be caused by the consumption of alcohol, caffeinated drinks or diuretics, soft drinks and medications including antibiotics. Stress can also compromise the efficacy of the digestive tract by increasing the production of hydrochloric acid (HCl). The symptoms of this disease include bloating, cramping and abdominal pain and in extreme conditions, diarrhoea and constipation.

New Roots Europe has developed this unique formulation of 100 billion CFU (2 capsules) to restore the microbial balance necessary for good general health. The enteric coating of the capsules protects the product from gastric juices and ensures its strength 100%.

Ingredients: Potato starch, bacterial culture (50 billion live active, healthy cells per capsule, see nutritional information), inulin (from chicory root, *Cichorium intybus*), arabinogalactan (from *Larix laricina*), anticaking agent: magnesium salts of fatty acids, L-ascorbic acid (vitamin C), GPS™ enteric coated vegetable capsule (glazing agent: hydroxypropylmethylcellulose; aqueous enteric-coating solution; purified water).

Nutritional information:	**2 enteric capsules (1 273 mg)**
Human strains	
Bifidobacterium longum ssp. longum UB7691	18 billion CFU
Lactobacillus casei UB1499	18 billion CFU
Lactobacillus rhamnosus UB5115	18 billion CFU
Lactobacillus acidophilus UB5997	2 billion CFU
Bifidobacterium bifidum UB4280	2 billion CFU
Bifidobacterium breve UB8674	2 billion CFU
Bifidobacterium longum ssp. infantis UB9214	2 billion CFU
Plant strains	
Lactobacillus plantarum UB2783	18 billion CFU
Dairy strains	
Lactobacillus helveticus UB7229	18 billion CFU
Lactobacillus paracasei UB1978	2 billion CFU
Inulin	30 mg
Arabinogalactan (AOS)	30 mg
Vitamin C (L-ascorbic acid)	12 mg (15%*)

CFU: Colony-Forming Unit Cells *NRV: Nutrient Reference Value in %.

GPS™ enteric coating: Protects contents from stomach acids and delivers 100% potency to the intestines.

Size and format:

30 enteric-coated vegetable capsules

Recommended daily dose:

2 capsules daily. If you are taking antibiotics, take this product at least 2-3 hours before or after taking them.

Do not exceed the stated recommended daily dose.

Store preferably refrigerated.

Indications and uses:

Acute conditions:
- Antibiotic-associated diarrhoea
- Acute infectious diarrhoea

Cardiovascular diseases
Stress and depression

Cautions:

Consult a health-care practitioner before using if you have fever, vomiting, bloody diarrhoea, or severe abdominal pain. Discontinue use if symptoms of digestive upset (diarrhoea) persist or worsen beyond 3 days. Consult a health-care practitioner if you have an immune-compromised condition (e.g. lymphoma or AIDS).

BIFIDOBACTERIUM LONGUM, B. BIFIDUM, B. INFANTIS and *B. BREVE*: The four strains of *Bifidobacterium* in PRO-URGENCY are among the most important probiotic species to implement themselves in the gastrointestinal tract at birth and then maintain good health during adult life. These bacteria represent 95% of the intestinal flora of new-borns and decrease to 25% in adults([1]).

BIFIDOBACTERIUM LONGUM ssp. *LONGUM*: this product contains the UB7691 human strain. A protein factor produced *by B. longum* inhibits the adhesion of the enterotoxigenic strain of *Escherichia coli*.[(2)] It has anti-inflammatory properties and is indicated for gastrointestinal disorders such as ulcerative colitis[(3)], antibiotic-associated diarrhoea[(4,5)], Irritable Bowel Syndrome[(6)], and seasonal allergies[(7,8)]. It helps in the formation of lactic acid and formic acid, lowering intestinal pH and preventing the proliferation of harmful bacteria[(9)]. It is also a significant producer of B vitamin[(10)].

BIFIDOBACTERIUM BIFIDUM: this product contains the UB4280 human strain. They are found in the mucosal lining of the last part of the small bowel and are the predominant strains that colonise the large bowel and support bowel health, hygiene, and functionality. They reduce serum cholesterol and dissolve bile salts[(11,12)]. *B. bifidum* has been shown to exert antibacterial activity against *Helicobacter pylori*[(13,14)], reduces apoptosis in the intestinal epithelium of children with necrotising enterocolitis[(15)], regulates the immune system response[(16-18)], reduces the duration and severity of colds[(17)], provides anti-inflammatory activity in chronic diseases of the large bowel (e.g., irritable bowel syndrome) [(19,20)] and reduces the incidence of radiotherapy-induced diarrhoea in cervical cancer patients[(21)].

BIFIDOBACTERIUM BREVE: this product contains the UB8674 human strain. It maintains colon homeostasis by reducing inflammation through induction of intestinal IL-10 producing Tr1 cells[(22)]. It protects colon function, relieves constipation, and reduces gas, bloating, and diarrhoea[(22,23)]. It improves ulcerative colitis symptoms[(24)]. In addition, it stimulates the immune system[(23,25)], inhibits *Escherichia coli*[(26)] and suppresses *the Candida fungus*[(27)]. It reduces fat, liver function, and systemic inflammation in people prone to obesity[(28)]. In neonates, it improves gastrointestinal problems by stabilising the intestinal flora[(29)] and reduces the incidence of necrotising enterocolitis[(30)]. In children with coeliac disease, it reduces the pro-inflammatory cytokine TNF-alpha[(31)]. It improves adverse effects, such as fever, infections, and intestinal disorders, in chemotherapy patients[(32)].

BIFIDOBACTERIUM LONGUM ssp. *INFANTIS*: this product contains the UB9214 human strain. It is the dominant probiotic inhabiting the distal part of the small bowel and colon. It is one of the first species to colonise the infant intestinal tract [(33)] and is critical in adults for intestinal health and immune system function[(34)]. It is extremely good at surviving stomach and bile acids[(35)], and is generally able to adhere to intestinal tissue[(36)]. It produces acetic acid and inhibits pathogenic bacteria[(37)]. It produces bacteriocins, which act against *Salmonella*, *Shigella*, and *E. coli*[(38,39)]. It relieves many symptoms of Irritable Bowel Syndrome (IBS), such as pain, bloating, normalises bowel movements, and regulates the IL-10/IL-12 ratio[(40-42)]. It reduces systemic pro-inflammatory biomarkers in chronic inflammatory diseases such as ulcerative colitis, chronic fatigue syndrome, and psoriasis, demonstrating that the immunomodulatory effects of the microbiota are not limited to the mucosa but encompass the systemic immune system[(43)]. It can relieve the symptoms of untreated coeliac disease[(44)].

LACTOBACILLUS CASEI: this product contains the UB1499 human strain. It reduces the duration and incidence of infections such as bronchitis, pneumonia and rhinopharyngitis[(45-47)]. Regarding intestinal infections, it boosts immunity against bacterial infections (e.g., *Escherichia coli*) and viral infections (e.g., influenza vaccinations)[(48-51)] In children, it improves allergic rhinitis symptoms[(52)], helps eradicate Helicobacter pylori in combination with antibiotic therapy[(53)], is effective against viral diarrhoea[(54)] and improves the general incidence of infections[(55)].

LACTOBACILLUS RHAMNOSUS: this product contains the UB5115 human strain. It is one of the most widely researched probiotic species due to its tolerance to acidic conditions. It colonises in the intestinal membranes, providing numerous health benefits: it increases lactic acid production, actively suppressing the growth of harmful bacteria such as *Salmonella*[(56)]; it is effective in preventing antibiotic-associated diarrhoea [(57)] and *Clostridium difficile*-associated diarrhoea[(58)]. It strengthens the immune system and is a good co-adjuvant for the influenza vaccine[(59)]; it improves intestinal barrier function for the relief of autoimmune diseases such as arthritis[(60)] and allergies[(61)]. It improves the blood lipid profile[(62)] and reduces cholesterol[(63)]. It may prevent or relieve symptoms of postpartum depression and anxiety[(64)], regenerate the vaginal flora in women by reducing colonisation by oral bacteria and fungi[(65)], and may reduce the prevalence of gestational diabetes mellitus[(66)]. In children, it reduces the frequency and duration of diarrhoea and vomiting[(67)], rotavirus diarrhoea[(68)], and antibiotic-associated diarrhoea[(69)]. It reduces the incidence of atopic dermatitis[(70,71)]. Drinking milk supplemented with *L. rhamnosus* reduces the risk of tooth decay in children[(72)].

LACTOBACILLUS ACIDOPHILUS: this product contains the UB5997 human strain. It improves the general symptoms of patients with Irritable Bowel Syndrome[(73)]. It helps maintain an acidic environment in the intestinal tract by preventing the growth of harmful bacteria and reduces antibiotic-associated diarrhoea[(74)]. It reduces total plasma cholesterol and low-density

lipoprotein (LDL) cholesterol[75,76]. It helps improve digestive health by maintaining the intestinal barrier, restoring intestinal flora, improving digestion, reinforcing the immune system, and supporting beneficial bacteria that thrive in the colon[77]. It helps improve symptoms of allergic rhinitis[78], hay fever[79] and atopic dermatitis[80]. When used in combination with *B. bifidum*, it reduces the incidence of radiotherapy-induced diarrhoea in cervical cancer patients[81].

LACTOBACILLUS PLANTARUM: this product contains the UB2783 plant strain. It acts against unwanted bacteria by improving the symptoms of Irritable Bowel Syndrome such as excessive gas, bloating and abdominal discomfort[82-86], as well as in ulcerative colitis[87,88]. It regulates immune response and is beneficial in the treatment of atopic dermatitis in children[89]. It has immunostimulatory effects in the elderly, reducing the number of infections[90]. It improves gastrointestinal symptoms during antibiotic therapy[91]. It reduces cardiovascular risk factors and may be useful as a protective agent in the primary prevention of atherosclerosis in smokers[92]. In adults with hypercholesterolemia, it lowers cholesterol and high blood pressure, which may thus reduce the risk of cardiovascular diseases[93]. It improves symptoms of lactose intolerance, such as diarrhoea and flatulence in combination with another probiotic[94]. Together with other Lactobacillus species, it can restore the vaginal flora by improving the pH and diagnosis of bacterial vaginosis when administered orally[95].

LACTOBACILLUS HELVETICUS: this product contains the UB7229 dairy strain. It protects the gastrointestinal tract, strengthening the systemic humoral and intestinal mucosal immune response in elite athletes [96]. It has been shown to cause an antidepressant effect in animals, probably due to the microbiota-gut-brain axis connection[97]. Fermented milk with *L. helveticus* improves cognitive function[98] and lowers blood pressure[99]. In animals, it increases bone density and bone mineral content[100], in postmenopausal women it has a positive effect on calcium metabolism[101]. It controls unwanted intestinal micro-organisms and bacteria (*Salmonella enteritidis, Camplylobacter jejuni, Escherichia coli, Candida albicans*, etc.), regulates immune response and reduces lactose intolerance[102].

LACTOBACILLUS PARACASEI: this product contains the UB1978 dairy strain. It significantly enhances the specific immune response in healthy people who have received the influenza vaccine[103]. It improves digestive function[104] and symptoms (especially eye symptoms) in patients with allergic rhinitis treated with oral antihistamines[105]. It is also useful against *Staphylococcus aureus*, *Escherichia coli*, and *Salmonella* infections[106-108]. It relieves the frequency and duration of acute diarrhoea in children[109]. It improves neurocognitive function in patients with chronic fatigue syndrome when used in combination with other probiotics[110].

INULIN: It is a fructooligosaccharide (FOS) of plant origin, extracted from the root of chicory (*Cichorium intybus*). It acts as a prebiotic, creating the right environment for probiotics or beneficial micro-organisms to reproduce faster and in greater numbers[111-113]. It increases the population of *Bifidobacterium* probiotics in the colon and reduces toxic metabolites and harmful enzymes. It prevents pathogenic and autogenous diarrhoea and constipation and protects liver function[114].

ARABINOGALACTAN: it is an arabino-oligosaccharide (AOS) of plant origin from the larch tree (*Larix laricina*). It is an excellent prebiotic that increases the production of short-chain fatty acids (mainly butyrate), which acts as an energy substrate for the epithelial cells of the colon and protects the intestinal mucosa. It activates the immune response and selectively stimulates the growth and activity of probiotic bacteria[115]. It is useful in fighting infections due to its ability to decrease bacterial adherence[116,117]. In addition, it lowers the intestinal pH and improves mineral absorption[117-120].

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