



MEGA PROBIOTIC POWDER

Restore ultimate intestinal flora balance

PROBIOTICS FOR INTESTINAL HEALTH

Modern medical research has confirmed that daily ingestion of probiotics can increase the number of friendly bacteria in the gut, and is identifying which species of bacteria are most beneficial. Probiotics have been shown to play an important role in preventing or controlling diarrhea, constipation and other digestive disorders, dental cavities, bacterial vaginosis, and allergies. Recent studies also reveal that probiotics can reduce the risk of cancer, and reduce infections by strengthening the immune system.

While some foods (like yogurt), or fermented foods (like tempeh) can replenish some species of friendly bacteria, getting adequate amounts from our diet can be challenging. Natural Factors Mega Probiotic Powder is a specially-formulated probiotic supplement that delivers a balanced blend of the most potent species of probiotics.

THE INTESTINAL ECOSYSTEM

Many species of bacteria coexist in the body in a delicate state of competition and balance. When this balance is disrupted, an overgrowth of one or more of the disturbed colonies may occur, creating a condition called dysbiosis. The increased waste byproducts of the dominant species can then become a burden on the body. Disease symptoms may emerge, such as gas, bloating, poor bowel function, headaches, joint pain, fatigue, yeast infections, skin disorders, cravings, weight gain, diarrhea, and allergies. Supplementing with the right probiotics can help restore balance by encouraging the regrowth of the friendly bacteria.

ADVANCED GENERATION PROBIOTICS

Mega Probiotic Powder is the result of careful research and testing. The formula delivers a potency of 12 billion active cells per gram at time of manufacture (eight billion at expiry) and is a blend of four clinically-tested species of friendly probiotics. Three species of lactobacillus bacteria support the health of the small intestine, and one species of bifidobacterium supports the health of the large intestine.

Lactobacillus rhamnosus, the primary species in this formula, inoculates the mouth, throat, stomach and small intestines, is highly prolific, and ferments up to 23 different sugars, producing large amounts of lactic acid. According to Dr. Edouard Brochu, "Due to its beneficial effects in nutrition, protection of the digestive tract, inhibition of vaginal infections, and production of immunity against pathogenic bacteria and viruses, *L. rhamnosus* may be considered one of the most important lactobacilli."

Lactobacillus acidophilus produces lactic acid, which maintains a healthy pH balance in the small intestine, inhibiting yeast growth. Studies have shown that this species can improve lactose intolerance, inhibit undesirable organisms in the intestine, reduce cholesterol levels, and help control diarrhea.

Lactobacillus casei helps propagate desirable bacteria and is shown to have a wide pH and temperature range. This species comple-

ments the growth of *Lactobacillus acidophilus*.

Bifidobacterium bifidum helps lower the pH of the colon, making it more acidic, thereby inhibiting the growth of pathogens such as salmonella and *E. coli*.

Some friendly bacteria are sensitive to acid. However each strain chosen for this formula has natural resistance to gastric acids. They are able to survive the stomach's acidity without an enteric coating as long as they are taken with food. These strains were also chosen for their ability to proliferate in the high levels of bile common during digestion.

This formula contains strains that are "antibiotic compatible". They do not interfere with the effectiveness of antibiotic drugs, and they help prevent some of the drug's adverse effects, such as diarrhea.

All strains in the Mega Probiotic Powder have undergone strain compatibility testing to ensure there are no competitive or inhibitory effects between the strains.

Mega Probiotic Powder also contains FOS (fructooligosaccharides). These are short-chain, indigestible sugars. Because they are indigestible, they pass through to the large intestine where friendly bacteria such as bifidobacteria feed on them and multiply. Research has shown that bifidobacteria may be quite transient. However, FOS supplementation greatly increases their numbers and gives them staying power. Studies have found that FOS supplementation can reduce the incidence of gastrointestinal and respiratory infections (Veereman).

THE MANY BENEFITS OF PROBIOTICS

- Restoring and maintaining healthy, balanced intestinal flora
- Limiting growth of putrefactive and pathogenic bacteria
- Supporting immune function (60-70% of antibodies are produced in the intestine)
- Preventing or repairing a "leaky gut"
- Helping to control food allergies, intolerances and reactions
- May help reduce symptoms of celiac disease, Crohn's disease, IBS, and other inflammatory bowel conditions
- Counteracting systemic and vaginal *Candida albicans* yeast overgrowth
- Preventing urinary tract and other infections
 - Use of Mega Probiotic Powder can prevent many infections before they start, thus reducing the need for antibiotics
- Balancing cholesterol levels
- Improving breath

RESTORING, MAINTAINING HEALTHY INTESTINAL FLORA

When a person receives treatment with antibiotics they often experience diarrhea as the drugs kill the friendly bacteria along with the pathogenic bacteria. It has been well-documented that

Each ¼ teaspoon (1 g) of Mega Probiotic Powder provides a minimum of:

Strain	% of formula	Quantity	Origin
<i>Lactobacillus rhamnosus</i> HA-111	45%	5.40 billion	human
<i>Lactobacillus acidophilus</i> HA-122	35%	4.20 billion	human
<i>Lactobacillus casei</i> HA-108	15%	1.80 billion	human
<i>Bifidobacterium bifidum</i> HA-132	5%	0.60 billion	human

probiotics can restore and maintain healthy intestinal flora in such cases.

For example, a double-blind, randomized, placebo-controlled trial followed 240 children (aged three months to 14 years) as they received standard antibiotic treatment for common infections, with or without administration of *L. rhamnosus*. The children who received the probiotic had a significantly reduced incidence of diarrhea (Ruszczyński, *et al*).

A randomized, placebo-controlled, five-month intervention study followed 86 IBS patients to determine the effects of supplementation with a multispecies probiotic which included *L. rhamnosus* and bifidobacteria. Compared to the placebo group, those receiving probiotics reported less distension and abdominal pain. The researchers also observed an increase in the microbiota similarity index, indicating the probiotic supplementation had stabilized the intestinal microflora (Kajander, *et al*).

SUPPORTING IMMUNE FUNCTION

A randomized, double-blind, placebo-controlled study of 721 healthy volunteers investigated a synbiotic mixture, including *L. rhamnosus*, bifidobacteria and FOS, to determine its role in preventing respiratory infections. The number of episodes of acute respiratory infection showed a statistically significant drop for both colds and the flu, as compared to the placebo group. The severity and duration of episodes also decreased significantly. The researchers concluded, “regular, long-term intake of various probiotics may improve health by reducing the incidence and severity of respiratory diseases during the cold season” (Pregliasco, *et al*).

Another study investigated the role of *L. casei* and *L. rhamnosus* in reducing pneumonia in a 17-bed intensive care unit. This randomized, double-blind, placebo-controlled pilot study found the incidence of *P. aeruginosa* pneumonia colonization and/or infection was significantly delayed in the group receiving probiotics, compared to the placebo group (Forestier, *et al*).

REDUCING CANCER RISK

The latest research shows that friendly bacteria can help reduce the risk of cancer in several ways; slowing down the proliferation of cancer cells, increasing the rate of cell death, and normalizing the removal of toxins.

Probiotics have been shown to decrease the activity of certain enzymes involved in colon cancer. These enzymes, beta-glucosidase, beta-glucuronidase and urease, inhibit the normal excretion of fat-soluble toxins such as pesticides, solvents and excess estrogen. A randomized, double-blind, placebo-controlled study of *L. rhamnosus* involved 38 healthy men. The researchers found that beta-glucosidase activity decreased by 10% and urease activity by 13% in men who received probiotics, compared to the placebo group (Hatakka, *et al*).

Certain strains of friendly bacteria have the ability to remove toxic microcystins produced by cyanobacteria. Various probiotics, including *L. rhamnosus* and bifidobacteria, were tested for their ability to remove microcystins from aqueous solutions. *L. rhamnosus* was observed to remove up to 77% of particular toxins. The study found that a combination of probiotic strains was more effective than any one of the individual strains (Nyborg, *et al*).

DOSAGE

Recommended adult dose (12 years or older): ¼ teaspoon (1 g) at mealtime daily mixed with water, juice, your favourite smoothie, or sprinkled onto foods like cereal, fruit or yogurt, or as directed by a health care practitioner. Due to the fact that probiotics are living organisms, there is a natural reduction in potency over time. Under ideal conditions, this means a loss of approximately 1% per month. Refrigerate for maximum potency.

SAFETY

All four strains in Mega Probiotic Powder are exceedingly safe. If gastrointestinal symptoms are severe or do not abate, consult your health care practitioner.

A clinical study of adults with orally-administered bifidobacteria and lactobacilli at a daily dosage of 450 billion for eight weeks showed no side effects.

Pregnancy and lactation: Considered safe during pregnancy and lactation, however, any pregnant woman with a urogenital infection should consult her health care practitioner rather than self-medicate.

Children: Although children can take this product at half the adult dose, Natural Factors Children’s Multi Probiotic is recommended instead, as it is specifically formulated for children.

Drug interactions: If you are taking antibiotics, take two hours before or two hours after the antibiotics, to restore good bacteria quickly. Continue to use probiotics well after the antibiotics are finished (how long depends on many factors, but typically a month or more).

Contraindications: None known.

Mega Probiotic Powder can offer important support for healthy digestion, a strengthened immune system, and reduced risk of cancer.

KEY REFERENCES

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