

No 7 Systemic Booster

Brief

The No 7 Systemic Booster was designed by combining modern bio-research and scientific data guided by historical cross-cultural evidence on longevity and health. With studies examining longevity around the world in 1910, Bulgarians have had the most robust health in old age, having the most centenarians in their society. The studies show the Bulgarians long tradition of yoghurt consumption made with a specific strain of *Lactobacillus bulgaricus*, passed on through generations within families. The particular strains of traditional Bulgarian culture are thought to be some of the most useful microbes that can be acclimatized in the digestive track for the purpose of arresting putrefactions and pernicious fermentations. The No 7 is anchored in the Bulgarian fermented foods traditions. The strains are isolated from humans and traditional fermented food.

- Traditional Bulgarian probiotic (lactic acid bacteria- human and food strains).
 - No 7 contain scientifically selected Traditional Bulgarian strains of *L. casei*, *L. acidophilus*, *L. helveticus*, *B. longum*, and *B. infantis*. Each 5-gram serving provides 6.33 billion colony-forming units (cfu). One tablespoon equals 8.33 grams.
 - Supernatant- composed of inactive probiotic cells and metabolites produced during the fermentation process.
 - Inactive cells of *L. bulgaricus*, *S. thermophilus* and *Bifidobacterium*
 - Metabolites from the fermentation process- lactic acids, amino acids, folates, bacterocins, bio-surfactants and beneficial enzymes such as lactase and BSH- bile salts hydrolase.
- Pure mix of organic freeze-dried high actives whole fruit and fruit extracts utilizing proprietary extraction methods and advanced freeze-drying technology.
 - Organic High Actives Tart Cherry, whole fruit- 125mg.
 - Organic High Actives Cranberry, whole fruit and fruit extract- 125mg.

- Organic High Actives Pomegranate, whole fruit and fruit extract- 125mg.
- Organic High Actives Pineapple, whole fruit- 125mg.
- Oligosaccharides, vitamins, minerals and cell rejuvenating natural compounds.
 - Inulin- derived from organic chicory root- 3.5 grams.
 - Activated barley sprouts- 125mg.
 - Calcium Fructo-Borate- 125mg.
 - Vitamin D3- 1000 IU.
 - Folic Acid- 400 IU.
 - L-Carnitine Fumerate- 62.5 mg.
 - L-Carnosine- 62.5mg each.

Science

The No 7 Systemic Booster's components work together as a daily therapeutic food to strengthen the function of the immune system, gastrointestinal system, osteo-skeletal system, cardiovascular system, endocrine system, uro-genital system, respiratory system and the neurological system.

- The No 7 Strains were selected purposely for their ability to defend the body against the increasing onslaught of virulent pathogens and xenobiotics: (1) collectively, the No 7 Strains express strong immune stimulating/immune modulating effects; decrease the GI membrane pH thereby creating an unfavorable environment for pathogens; release antibacterial substances called bacteriocins and express toxin binding effects. (2) The strains also work together to maintain the normal physiological function of the gastrointestinal tract greatly enhancing absorption of nutrients including minerals from food. (3) For the cardiovascular system the organisms monitor cholesterol in the blood serum and prevent/ameliorate high blood pressure. (4) The probiotics organisms cross-talk with the underlying immune system and nervous system activating genes to protect, repair and heal, thereby retarding the aging and senility of the human organs and human physiological systems.
- Supernatant is a very powerful immune stimulator for the cell mediated immune response. Supernatant is composed of inactive cells of *L.*

bulgaricus, *S. thermophilus* and *Bifidobacteria* and their metabolites created during the fermentation process. The metabolites are potent immune enhancing substances such as bacteriocines, folates, amino-acids, lactic acid, bio-surfactants, and angiotenzin converting enzyme (ACE) inhibition peptides. Supernatant provides a rapid strong resistant effect and through research demonstrates a powerful broad-spectrum antimicrobial effect through the whole gastro-intestinal system against many bacterial and viral diseases.

- Calcium Fructo-Borate is composed of boron and carbohydrate and is identical to naturally occurring boron complexes in food. Fructo-Borate provides relief to painful joints, enhances the metabolism of calcium, and keeps balanced and enhanced blood levels of Vitamin D, DHEA, estrogen and testosterone levels. Fructo-Borate helps to prevent and even reverse osteoporosis and osteoarthritis. The Fructo-Borate molecule has a worldwide patent. For a further discussion on Fructo Borate please visit our web library.
- Tart Cherry, High Actives, organic whole fruit- contain pain-relieving compounds. Tart Cherry is a source of natural antioxidants and potent anti-inflammatory that reduce pain related to inflammation, arthritis and gout. Researcher at the USDA Human Nutrition Research Center recently found that women who ate 45 tart cherries every morning markedly reduced inflammatory indicators linked with gout, a very painful form of arthritis. Most of the non-steroidal anti-inflammatory drugs such as aspirin, ibuprofen work by inhibiting cyclooxygenase I and II. Tart Cherry inhibits COX 1 and COX 2 inflammatory pathways comparable to Advil. Tart Cherries prevents DOM (delayed onset muscle soreness). Connolly et al (2006) in a randomized placebo controlled study has shown that tart cherry juice can decrease DOM. Most notably strength loss averaged over the four days after exercise was 22% with placebo and only 4% with cherry juice.
- Cranberry, High Actives organic whole fruit and extract- Cranberries contain significant levels of phytonutrients, antioxidants, flavonoids and organic acids. The berries express unique bacterial anti-adhesion properties to prevent and control uro-genital infections. Traditionally,

cranberry has been used not only for the treatment and prophylaxis of urinary tract infections, but as early as the 1700s therapeutic applications for cranberries included the relief of blood disorders, stomach ailments, liver problems, vomiting, appetite loss, scurvy and cancer. Modern scientific research is confirming many of the medical benefits provided by the compounds in cranberries.

- Pomegranate, High Actives organic whole fruit and extract: recent studies show the pomegranate to be an excellent source for cardiovascular health with the ability to restore endothelial integrity, lower blood pressure and protect LDL cholesterol from damaging oxidation. Pomegranate also demonstrates abilities to fight several of the most common forms of cancer, slowing the progression of prostate cancer and suppressing the growth of colon, breast, and lung cancer cells. In combination with the cranberry fruit and extract, the pomegranate suppresses bacterial and fungal growth. For the anti-aging effect, the pomegranate supports the skin-underlying matrix.
- Pineapple, High Actives organic whole fruit- nutritionally packed with members of the bromeliad family providing the anti-inflammatory enzyme bromelain and the antioxidant vitamin C. Bromelain is a natural anti-inflammatory that is effective in treating bruises, sprains and stains by reducing swelling, tenderness and pain. This powerful anti-inflammatory effect can also help relieve rheumatoid arthritis symptoms and reduce postoperative swelling. Additionally, bromelain contained in fresh pineapple can relieve indigestion. Its enzymatic action helps to break down the amino acid bonds in proteins, which promote good digestion.
- Malted Barley Sprouts- Exert a profound influence upon our body's ability to overcome insulin resistance and accompanying symptoms such as high cholesterol, triglycerides and blood glucose. Malted Barley Sprouts are a good source of healthy plant cytokinins, a class of plant growth regulators that possess hypoglycemic attributes. They stimulate a dose dependent glucose transport from the blood into muscle cells, thereby reducing excessive blood sugar levels.
- Inulin (Oligofructose)- NDO (non digestible oligosaccharides) serve as a source of food for *Bifidobacteria* and *Lactobaccillus* in the large intestine.

Together NDO and probiotics increase Ca absorption to prevent and control osteoporosis and osteoarthritis. Inulin decreases blood serum cholesterol, balances blood sugar and blood pressure. Inulin helps protect against viral infections. In a study conducted at John Hopkins, 123 infants who were fed inulin with their cereal showed reduced incidence of fever, less antibiotic use, fewer doctor visits, less vomiting and fewer daycare absences. Inulin improves bowel habits. It is a highly viscous non-digestible soluble dietary fiber and therefore increases faecal biomass and water content of the stools. The addition of inulin in the diet is known to improve regularity and reduce constipation. (For more information visit the web library and read about inulin in the Original Synbiotic Formula monograph).

- L-Carnitine is used by the human body to transport long chain fatty acids to the mitochondria in the cells where it is utilized for energy production. The fat burning is a major source of muscular energy and deficiencies of L-Carnitine are manifested as low energy levels and muscular weakness. L-Carnitine also rejuvenates cells, improves skin elasticity and reduces wrinkles. L-carnitine improve the quality of the sperm and fertility in men.
- L-Carnosine is an endogenous free radical scavenger. In addition to protecting cells from oxidation, L- carnosine extends the lifespan of cells and rejuvenates old cells. Aged cells are no longer capable of dividing yet remain metabolically active. Furthermore, senescent cells exhibit changes in form and function that may lead to age-related changes such as the difference between the supple skin of a child and the wrinkled skin of the elderly. L-Carnosine inhibits glycosylation of protein and maintains cellular homeostasis. Glycosylation is the cross-linking of proteins and DNA molecules. It is partly responsible for cataracts, kidney failure and dull, tired-looking skin. Carnosine effectively buffers lactic acid, produced by working muscles, and that adding carnosine substantially increases the contractility and endurance of the muscles.
- Vitamin D3 plays a critical role in the maintenance of the organ systems. It is a pre-hormone that must be metabolized, first by the liver and then by the kidneys into the converted, fully-active, hormonal form of Vitamin

D (calcitriol). Vitamin D has long been known for its important role in regulating calcium and phosphorus levels in the blood by promoting their absorption from food in the intestines, and by promoting re-absorption of calcium in the kidneys. It promotes bone formation and mineralization and is essential in the development of an intact and strong skeleton. Vitamin D affects the immune system by promoting immunosuppression, phagocytosis, and anti-tumor activity. Vitamin D and its metabolites, play an important part in the regulation of genes involved in cell growth, differentiation and proliferation. By promoting differentiation and inhibiting proliferation Vitamin D is an important factor in cancer prevention and therapy. Receptors for calcitriol, are present in a wide variety of cells and its biologic effects extend to all systems of the body.

- Folic acid (folate) is an essential B vitamin. It is involved in a number of key biological processes, including the synthesis of DNA, RNA and proteins. It is needed for proper blood cell function and nervous cell development. Folic acid helps produce and maintain new cells. It prevents anemia and maintain normal function of the red blood cells. Folic acid lowers the levels of homocysteine in the blood plasma decreasing the rate of coronary re-est

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