

Colon-Plus™ Colon-Plus Caps™



For Healthcare Professionals Only

Colon Plus™ is available in powder and capsules and contains a range of natural ingredients offering the following benefits:

Psyllium Seed Powder (*Plantago psyllium*) - Small, dark reddish-brown seeds which are odorless and tasteless, and high in both fiber and mucilage. Used as a laxative, psyllium seed powder helps to relieve constipation, stimulates normal peristalsis, and purges the system of noxious products. The laxative action of psyllium seed is due to the swelling of the powder when it comes in contact with water, forming a gelatinous and sticky mass that keeps feces hydrated and soft, provided it is taken with sufficient water. The resulting bulk stimulates a reflex contraction of the walls of the bowel, followed by emptying of larger softer stool, which is easier to pass. This effect is generally observed overnight.

Kelgin (*Sodium alginate*) - Kelgin, the sodium salt of alginic acid, is extracted from selected varieties of brown seaweed, including the giant brown kelp *Macrocystis pyrifera*. Kelgin's unique property is to form gels when combined with calcium ions without heating. This reaction is widely used throughout the industry to texturize and stabilize many food products. In the food industry, sodium alginate is used for gelling, thickening, stabilizing and film forming properties.

Healthcare professionals have used kelgin as a heavy metal detoxification agent based on a unique characteristic reaction of kelgin with divalent metals as depicted in the following reaction:



This reaction proceeds to the right until all the metal is precipitated as metal-alginate derivative. If two or more metal ions are involved in reaction with kelgin, the precipitation will take place according to the electronegativity potential (value) of each metal.



Table 1.

Metal	Electronegativity Value
Arsenic (As)	2.0
Mercury (Hg)	1.9
Lead (Pb)	1.8
Nickel (Ni)	1.8
Cadmium (Cd)	1.7
Aluminum (Al)	1.5
Calcium (Ca)	1.0

Algin is a hydrophilic (water-loving) colloidal polysaccharide obtained from seaweed. First isolated in 1896 by Kreting, algin is now known to be linear polymers of β - (1-4) d-mannosyluronic acid and (1-4) L-glucosyluronic acid, and to have a molecular weight of about 240,000.

Calcium Ascorbate - Calcium ascorbate is a neutral salt of calcium and vitamin C (ascorbic acid). Calcium ascorbate is one of the two pure salts of vitamin C, which have successfully been stabilized. Besides possessing properties as a water-soluble antioxidant, ascorbic acid is also an efficient chelator of heavy metals.

Flax Seed (*Linum usitatissimum*) - Flax seed is comprised of ~40% linseed oil. Both flax seed and linseed oil have laxative qualities, and flax seed oil is reportedly an effective demulcent.

Apple Pectin - Pectin, a polysaccharide present as a cell wall constituent, is a source of water soluble fiber which has a gel-forming effect when mixed with water. As a dietary fiber, the apple pectin is helpful in maintaining good digestive and intestinal balance by cleansing the intestinal tract with its soluble and insoluble fibers. Pectins have a gelling action similar to that of alginates. The main constituent of pectin is a methylated (CH₃, methyl group) polygalaturonic acid. The degree of

methylation of pectins varies from one type to another. In **Colon-Plus™**, the apple pectin is a specially prepared polymer having a high degree of methoxyl groups. Moreover, pectins are susceptible to precipitation by polyvalent ions or metals. Physiologically, the oral use of kelgin and apple pectin (high methoxyl type) will be very similar. A colloidal gel forms with water, which is highly charged and has an affinity for heavy metals and to a lesser degree, calcium and other divalent ions. This gel aids in the formation of intestinal bulk, which acts as a smoothing effect, thus promoting natural elimination.

Mannitol - Mannitol is a simple water soluble sugar obtained from various plants, and is a mild sweetener. Mannitol has a slow rate of absorption from the intestinal tract and exerts laxative properties. Another unique characteristic of mannitol is its ability to react non-enzymatically with free radicals, in particular, hydroxyl radicals (OH⁻). Free radicals are highly reactive agents capable of oxidative attack of tissues (membranes), cells and structures within cells, for example mitochondrial membranes and cellular macromolecules.

Celery - Celery is included for natural mild flavoring.

Peppermint Leaves - Peppermint leaves provide a natural flavoring agent rich in chlorophyll. Peppermint has a carminative effect on the intestinal tract and induces digestive enzyme secretion.

Aloe Vera Powder - Historically, Aloe Vera has been used for a variety of disorders. Perhaps no one plant has received so much attention and use as Aloe Vera as a medical agent. Its use is found in biblical references and modern day medicine, most notably for the acceleration of wound healing. Stimulation of peristalsis, especially the larger bowel, results from the irritant effect upon epithelial tissues. In chronic constipation, Aloe Vera provides a mild stimulation of peristalsis, aiding the natural elimination process.

Lactobacillus acidophilus - The intestinal system is a medium for intestinal flora, and as such, may have as much as four (4) pounds of bacterial organisms in the adult system. Many of these organisms are pathogenic and compete for available space with commensal bacterial flora that colonizes the gastrointestinal tract. The use of antibiotics often results in an imbalance of the microflora system, resulting in intestinal putrefaction and can increase the possibility of the development of degenerative conditions (*J. Food Protection*, V.47, No.9, pp. 717-723, Sept. 1984). The restoration of "healthy microflora" is possible through the addition of Lactobacillus acidophilus organisms. The majority of microorganisms occur in the colon. Lactobacillus acidophilus organisms aids in acidifying the gut via the production of lactic acid. Other micronutrients including vitamin B₁₂, biotin, and folic acid, are produced by intestinal bacteria.

Bromelain - Bromelain is a plant derived proteolytic enzyme with a molecular weight of 33,000, isolated from the stem tissue of pineapple. The activity of bromelain is similar to that of papain. Bromelain hydrolyzes peptides, amides, and esters.

Anise - (*Pimpinella anisum*) Anise is an herb, which has the properties of a natural flavoring agent as well as a mild carminative.

Prune Powder - The dried fruit of *Prunus domestica*. Prunes have been well documented for their ability to facilitate the natural process of elimination.

Colon Plus™ is administered orally by mixing three (3) teaspoons of the powder with six (6) ounces of cool water or other liquid. This mixture should be followed by an additional glass of liquid.

Colon Plus™ is available in an eight (8) oz. container.

Product #: 6000 • Contains: 120 Capsules

Product #: 6001 • Contains: 8 ounces

For additional information on this and other quality products from Biotics Research please contact us:

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