ButyrEn

(Hypoallergenic)

Item # 70220
Available in bottles of 100 tablets

The Possible Benefits of ButyrEn, a Dietary Supplement

- Supports the integrity of the colonic mucosa by supplying a primary fuel for the colonic epithelium
- Supports the maintenance of bifidobacterium in the large intestine
- Modulates local electrolyte flux which may help mediate diarrhea
- Can correct a nutritional deficiency that usually accompanies ulcerative colitis

Description

ButyrEn is a dietary supplement in the form of an enteric-coated, extended shelf-life formulation of the calcium and magnesium salts of butyric acid, designed specifically for delayed release in the GI tract. Butyric acid is a short-chain fatty acid (SCFA) produced by certain probiotic bacteria, and appears to support mucosal integrity. Butyric acid has been shown to support the integrity of the colonic mucosa by acting as a primary fuel for the colonic epithelium (colonocytes). Butyric acid ("butyrate" when in salt form) is an important SCFA for this reason, and adequate amounts are needed for correct colon health.

Colon health is directly related to the metabolic processes occurring in the gut, which itself is directly related to diet. In this way, it can be said that the food we eat, which will in part determine the health of the colon, is a way to communicate with our environment. But how does our food communicate with our environment? It does so because when we take food into our mouths, it begins a process of transformation as it moves through the stomach, then the intestines, and the waste part goes out again into the environment. During this trip, the food becomes changed in structure, or digested. The digested nutrients are free to be absorbed by the circulatory system and delivered to the necessary sites. Upon delivery of the nutrients, the cells receive a message and then the cells create a reaction, the type of reaction depending on the nutrient involved.

Butyrate is created when colonocytes act metabolically on undigested fiber in the colon. This fiber can be considered a prebiotic agent. Prebiotics escape enzymatic digestion in the upper gastrointestinal tract and enter the large intestines unchanged. Instead of being excreted in the stool, these substances are fermented by colonic flora to yield SCFAs such as butyrate. The SCFAs, in turn, will stimulate the bifidobacterium in the large intestine, which yield health benefits such as improvement in lipid metabolism, and enhancement of the bioavailability of minerals.

It has been suggested that the inability of colonocytes to utilize butyrate may predispose one to degeneration or inflammation of the colon or bowel. Butyrate is absorbed by the colonocytes in the proximal colon via passive diffusion and by active transport mechanisms. Butyrate has been shown to modulate local electrolyte flux thereby mediating diarrhea. In fact, in acute diarrhea, butyrate production has been slowed down or halted. This has been postulated to impair epithelial cell function and create electrolyte imbalance and thus, diarrhea.

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Working on the hypothesis that the colonic metabolism of butyrate may be impaired in ulcerative colitis, researchers discovered that the mucosal metabolic fluxes of both butyrate and glutamine (a conditionally essential amino acid) were reduced in this disease. Moreover, such deficiencies were strictly related to the degree of inflammation in the bowel, a frequent consequence of a poor diet, such as one which relies strongly on heavy ingestion of animal products.

As chronic inflammation can lead to neoplasia of the colon, the effect of butyrate has been studied extensively for its role in supporting colon health. Recently, chronic lymphocytic leukemia cells have been shown to undergo apoptosis (programmed cell death) when in the presence of butyrate. Chronic lymphocytic leukemia is a slowly advancing form of hematological cancer which affects many people in the world. In one study, the sodium salt of butyric acid was shown to induce differentiation in two different colorectal carcinoma cell lines.

The dietary practices of Americans have been compromised much in past years. Many people have only short amounts of time to eat on lunch hours, or have little money to spend on their meals. This can result in the ingestion of relatively non-nutritious meals which can negatively impact one's health. By eating hastily and ingesting nutritionally-lacking foods, the health of the large intestine can become compromised and disease can ensue.

Each tablet contains:	Calcium (as Calcium/Magnesium Butyrate)	100 mg
	Magnesium (as Calcium/Magnesium Butyrate)	100 mg
	Butyrate	815 mg

Other ingredients: Dicalcium phosphate, cellulose, magnesium stearate, silicon dioxide.

Suggested Use: As a dietary supplement, 1 or 2 tablets three times daily with meals, or as directed by a healthcare practitioner.

Suggested References

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