



Betaine HCL (hydrochloride)

Gastroesophageal reflux disease (GERD), gastro-oesophageal reflux disease (GORD), gastric reflux disease, or acid reflux disease are defined as chronic symptoms or mucosal damage caused by stomach acid coming up from the stomach into the esophagus. A typical symptom is heartburn. GERD is usually caused by changes in the barrier between the stomach and the esophagus, including abnormal relaxation of the lower esophageal sphincter, which normally holds the top of the stomach closed; impaired expulsion of gastric reflux from the esophagus, or a hiatal hernia. These changes may be permanent or temporary.

Many naturopathic physicians believe that a supplement of betaine hydrochloride (HCL) can relieve GERD, not by reducing stomach acid, but by increasing it. Hydrochloric acid (HCL) is the primary digestive juice responsible for breaking down proteins in the stomach. Furthermore, it creates a protective barrier killing many potentially harmful microorganisms in food, according to Dr. Baroody in his book, "Alkalinize or Die." When it combines with food, it helps to eliminate acid-forming substances from bodily tissues and assist in their becoming neutralized by pancreatic secretion of bicarbonate further down the alimentary canal, thereby creating an alkaline state in the body. However, too much HCL can have unpleasant side effects.



Individuals suffering with stomach and intestinal problems most frequently assume that heartburn; indigestion, gas, and reflux are caused by overproduction of stomach acid. This common misconception has been strongly re-enforced by our conventional medical profession, whose practitioners routinely prescribe stomach acid blocking medications. Strangely enough, the symptoms of stomach acid over-production and under production are virtually identical. Because the American public over-consumes unhealthy food at an alarming rate, the routine use of acid blockers is highly profitable providing instant relief for many sufferers, but can bring about long-term health problems for many misdiagnosed users.

One hypothesis proposes that the very reason GERD is present is that the stomach lacks enough acid to fully digest proteins in the food. These food proteins cause allergic reactions and other responses within the stomach. Taken together, the responses increase flows of acid into the esophagus. In conjunction with that idea, it is believed that stomach acid decreases as we age. Lower levels of acidity allow the ring of muscle that closes off the lower end of the esophagus (LES) to relax. As it no longer squeezes the opening shut, stomach juices flow back into the esophagus. A supplement that increases acid in the stomach is thought to create the right amount of pepsin (an enzyme in the stomach that begins the digestion of proteins by splitting them into smaller pieces) to keep the LES closed, as it should be.

Hydrochloric acid serves many functions, the three most important are:

1. It is the primary digestive juice responsible for breaking down proteins, preparing them for assimilation.
2. It acts as a protective barrier, killing many potentially harmful microorganisms in food.
3. It acts as a venting mechanism for the build-up of excessive concentrations of hydrogen ions in our blood and interstitial fluids. In other words, we consume acid forming foods and / or engage in acid forming activity, the production of stomach acid uses up considerable amounts of the acid forming material (hydrogen ions) thereby assisting in the elimination of excessive tissue acidity. The stomach acid once combined with food is eventually neutralized further down the alimentary canal by alkaline pancreatic secretions.

From data collected from test groups, it is believed that well over half of the U.S. population beyond the age of fifty years is under-producing hydrochloric acid on a constant basis, leading to a host of digestive and immune disturbances, although one need not be of middle age to have this problem.

Betaine hydrochloride is a non-essential nutrient and a source of hydrochloric acid, a naturally occurring chemical in the stomach that helps digest food by breaking up fats and proteins. In particular, Betaine HCL is necessary for adequate absorption of protein, calcium, vitamin B12 and iron. It is also known as hydrochloric acid and stomach acid. The low pH of the stomach's hydrochloric acid also destroys ingested bacteria and microorganisms.

Betaine HCL is thought to be helpful for:

- High homocysteine level (cause for severe coronary disease)
- Anemia
- Asthma
- Gallstones
- Indigestion and heartburn
- Rheumatoid arthritis
- Thyroid conditions
- Tic douloureux (trigeminal neuralgia)
- Vitiligo
- Arteriosclerosis
- Diarrhea
- Food allergies

and to assist in prevention of these conditions:

- Malabsorption
- Osteoporosis
- Asthma
- Eczema
- Chronic hives
- Psoriasis
- Arthritis
- Thyroid disorder
- Vitiligo

No food source exists for Betaine HCL. It is, however, naturally produced by the parietal cells of the stomach. Acidity is quite strong in a normal stomach. Hydrochloric acid also controls the levels of bacteria and yeast.

Betaine HCL supplementation provides certain benefits when taken during meals as an aid to

digestion and to prevent heartburn. To resolve overgrowth of intestinal bacteria or fungus caused by low stomach acid taking the supplements between meals may be beneficial. This method also can improve indican metabolism, a measure of the efficiency of protein digestion.

Supplementing hydrochloric acid to treat low stomach acid works by retraining the stomach to produce higher concentrations of the acid on its own. Some people improve significantly within several weeks and for others it may take several months. When betaine HCL starts causing uncomfortable digestive symptoms related to excess stomach acid, decrease your dosage until you no longer need the supplement.

Do not confuse betaine HCL with betaine, technically known as trimethylglycine, or TMG. Although related, the two have different properties. Betaine occurs in some plant foods, but betaine HCL does not.

Please Note:

People using non-steroidal anti-inflammatory drugs (NSAIDS), cortisone-like drugs, or other medications that might cause a peptic ulcer should not take Betaine HCL. Only people who have reduced levels of stomach acid should take Betaine HCL. A health care provider should be consulted by anyone with a history of ulcers, chronic gastritis or gastrointestinal symptoms, especially heartburn, before using HCL.



Be sure to try NSP's PDA Combination (180 caps) NEW SIZE!, Bowel Detox (120 caps) .

References:

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Yours in Good Health!

Sincerely,
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