



Available in 120 vegetable capsules

- Provides Hydrochloric Acid to Help Maintain Gastric pH*
- Contains Factors to Promote Healthy Digestion, Especially of Dietary Protein*
- Supports Absorption of Certain Macro- and Micronutrients*
- Helps Maintain Normal Gastric Flora*

Discussion

GastrAid is designed to support the gastric phase of digestion directly and provide stimulus for the excretion of pancreatic digestive juices in the small intestine. Adequate hydrochloric acid is fundamental to healthy protein digestion, nutrient availability, and the maintenance of normal gastric flora.^[1-3] There is a natural decline in the ability to produce hydrochloric acid, especially after the age of 60.^[1] There appears to be an even greater decline in pepsin production related to normal aging.^[4] Support of natural gastric secretions and acidity helps support normal digestion, absorption, and immune health.^[5] Maintaining an acidic pH in the stomach helps support normal gastric and intestinal flora as well.^{*[6-8]}

L- Glutamic Acid This amino acid can be obtained from dietary protein or synthesized endogenously from other amino acids, such as glutamine. L- glutamic acid is used in GastrAid as an acidifying agent.*

Betaine Hydrochloride (HCl) Betaine (also known as trimethylglycine) is a natural substance found in foods such as beets, spinach, and grains. Research suggests that betaine supports cell health by acting as a methyl donor, and this, in turn, supports healthy methionine, homocysteine, and hepatic fat metabolism. Betaine also functions as an osmolyte, which supports the integrity of cells and proteins during fluctuations in hydration, salinity, and temperature. Betaine HCl, the acidic form of betaine, has traditionally been used to support digestion and absorption due to its ability to lower gastric pH.^{*[9,10]}

Pepsin One of the first enzymes to initiate protein digestion, pepsin is first synthesized in the parietal cells of the gastric mucosa and secreted as the inactive zymogen precursor pepsinogen. Hydrochloric acid activates pepsinogen to convert it to pepsin once it is outside the cell. This activation sets up a chain reaction leading to the production of still more pepsin. Porcine pepsin, in addition to betaine HCl, is provided in GastrAid with the goal of promoting more endogenous pepsin production.^{*[4,6]}

Gentian Root (*Gentiana lutea*) Used for centuries to support healthy digestion, gentian contains the bitter glycosides gentiopicroin and amarogentin. Gentian's bitter taste can be detected even at a dilution level of 50,000:1. Gentian root appears to support digestion by stimulating secretion of saliva in the mouth, hydrochloric acid in the stomach, and digestive juices from the pancreas. Due to the stimulant effect that gentian root has on endogenous production of HCl, individuals may be able to discontinue GastrAid after a period of use.^{*[11-14]}

GastrAid is formulated with a variety of compounds and is designed to support gastric acidity, digestion, and normal gastrointestinal flora. GastrAid should be taken with, or immediately following a meal. Do not use if there is a prior history of, or a current complaint of, a peptic or duodenal ulcer.*

GastrAid

Medicinal Ingredients (per vegetable capsule)

L-Glutamine.....	350 mg
Betaine HCl (<i>Beta vulgaris</i> – root).....	300 mg
Pepsin A (<i>Sus scrofa</i> – stomach).....	100 mg (1,000,000 FCC Pepsin)
Gentian (<i>Gentiana lutea</i> – root) powder.....	20 mg

Non-Medicinal Ingredients

Hypromellose, stearic acid, silica, magnesium stearate, medium-chain triglycerides.

Use/Purpose: Helps to support digestion / digestive aid.

Directions for Use: ADULTS: Take 1 capsule daily with food or as recommended by your health care professional. Consult a healthcare professional for prolonged use.

CAUTION:

Do not use this product if you are pregnant, have acute stomach irritation, inflammation and stomach or duodenal ulcers.

Consult a health care professional prior to use: if you are breastfeeding, if you have a peptic ulcer, excess stomach acid or have gastrointestinal lesions/ulcers, are taking anticoagulant agents or anti-inflammatory agents, or are having surgery.

If symptoms persist or worsen, or if new symptoms develop, discontinue use and consult a health care professional. Some people may experience headaches.

Stop use if hypersensitivity/allergy occurs.

Storage: Keep out of reach of children. Store in a cool dry place.

Do not use if tamper seal is broken or missing.

References

1. Bland J, Liska D, Jones DS, et al. *Clinical Nutrition A Functional Approach*. 2nd ed. Gig Harbor, WA: The Institute for Functional Medicine. 2004.
2. Giannella RA, Broitman SA, Zamcheck N. Gastric acid barrier to ingested microorganisms in man: studies in vivo and in vitro. *Gut*. 1972 Apr;13(4):251-6. [PMID: 4556018]
3. Lovat LB. Age related changes in gut physiology and nutritional status. *Gut*. 1996 Mar;38(3):306-9. [PMID: 8675079]
4. Feldman M, Cryer B, McArthur KE, et al. Effects of aging and gastritis on gastric acid and pepsin secretion in humans: a prospective study. *Gastroenterology*. 1996 Apr;110(4):1043-52. [PMID: 8612992]
5. Untermayr E, Jensen-Jarolim E. The effect of gastric digestion on food allergy. *Curr Opin Allergy Clin Immunol*. 2006 Jun;6(3):214-9. Review. [PMID: 16670517]
6. Smolin LA, Grosvenor MB. *Nutrition: Science and Applications*. 2nd ed. Hoboken, NJ: John Wiley & Sons, Inc. 2010.
7. Canani RB, Terrin G. Gastric acidity inhibitors and the risk of intestinal infections. *Curr Opin Gastroenterol*. 2010 Jan;26(1):31-5. Review. [PMID: 19907324]
8. Kanno T, Matsuki T, Oka M, et al. Gastric acid reduction leads to an alteration in lower intestinal microflora. *Biochem Biophys Res Commun*. 2009 Apr 17;381(4):666-70. [PMID: 19248769]
9. Craig SA. Betaine in human nutrition. *Am J Clin Nutr*. 2004 Sep;80(3):539-49. Review. [PMID: 15321791]
10. New York University Langone Medical Center. Betaine Hydrochloride. <http://www.med.nyu.edu/content?ChunkID=21560>. Last Reviewed 2011. Accessed March 23, 2012.
11. Mowrey D. *Scientific Validation of Herbal Medicine*. New Canaan, CT: McGraw-Hill. 1999.
12. Monterey Bay Spice Company. Gentian Root. <http://www.herbco.com/p-763-gentian-root-cs-wild-crafted.aspx>. Accessed March 25, 2012.
13. Vilkin A, Levi Z, Morgenstern S, et al. Higher gastric mucin secretion and lower gastric acid output in first-degree relatives of gastric cancer patients. *J Clin Gastroenterol*. 2008 Jan;42(1):36-41. [PMID: 18097287]
14. Behrens M, Brockhoff A, Batram C, et al. The human bitter taste receptor hTAS2R50 is activated by the two natural bitter terpenoids andrographolide and amarogentin. *J Agric Food Chem*. 2009 Nov 11;57(21):9860-6. [PMID: 19817411]

Additional references available upon request

EXCLUSIVE • PATENTED



7 22537 51201 5