ENZYME SCIENCE®

PRACTITIONER DIVISION OF ENZYMEDICA

Betaine HCl+

- Soothes digestive discomfort*
- With HCl and acid-active protease
- Promotes optimal stomach pH*

With HCl and an acid-active vegan protease, plus Mucosave® FG*

Betaine HCl+ offers fast-acting relief for occasional heartburn and indigestion due to low stomach acid.* Gentle formula includes an acid-active vegan protease (active at a low pH), plus Mucosave® FG, a clinically studied blend of prickly pear and olive leaf extracts shown to protect and soothe the stomach lining.*

SUPPLEMENT FACTS

Supplement Facts
Serving Size: 2 Capsules
Servings Per Container: 60

Amount Per Serving		%DV
Betaine HCl	1,300 mg	**
Acid-Active Protease	50 SAPU	**
Mucosave® FG	50 mg	

** Daily Value (DV) not established

OTHER INGREDIENTS:
100% vegetarian capsule (HPMC water), rice concentrate
CONTAINS NO: Casein, crustaceans, eggs, fish, gluten, milk, nuts, sesame, shellfish, soy, wheat; Artificial colors, fillers or flavors

RECOMMENDED DOSE:
1-2 capsules 3 times daily with meals. More may be taken as recommended by a healthcare practitioner. Consult a physician before use if you are pregnant or nursing, taking medications or have a medical condition.

For Occasional Heartburn and Indigestion*

The Digestive Process

While some believe digestion starts with the first bite of food, between 30% and 50% of acid production can be attributed to sensory stimuli alone. This first step of digestion, also known as the cephalic stage, includes visualization, smell and eventually tasting. Studies show just the sight of food or smell (or a combination of both) increases gastric acid secretion. The cephalic phase is mediated through the vagus nerve and its effect on parasympathetic neurons in the stomach, therefore stimulating acid secretion.

Once food is consumed, it is broken down through the activation of critical enzymes (amylase, lipase and kallikrein, a group of protease enzymes). Through swallowing and automatic muscle contraction, food particles travel down through the esophagus and reach the lower esophageal sphincter. When relaxed, food passes into the stomach; when closed, this sphincter prevents food from moving out of the stomach back into the esophagus.

Indigestion can affect most people at some point in their lives. Over 20% of the population experiences indigestion or heartburn at least once a week. Traditional therapies can provide relief but can lead to insufficient levels of hydrochloric acid and critical enzymes. Long term, this can impact microbial balance, protein digestion and absorption of certain vitamins and minerals.[1]

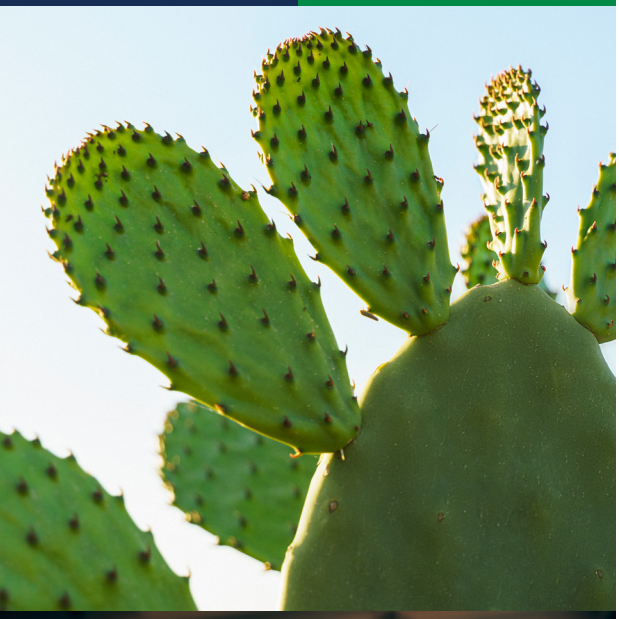
Hydrochloric Acid

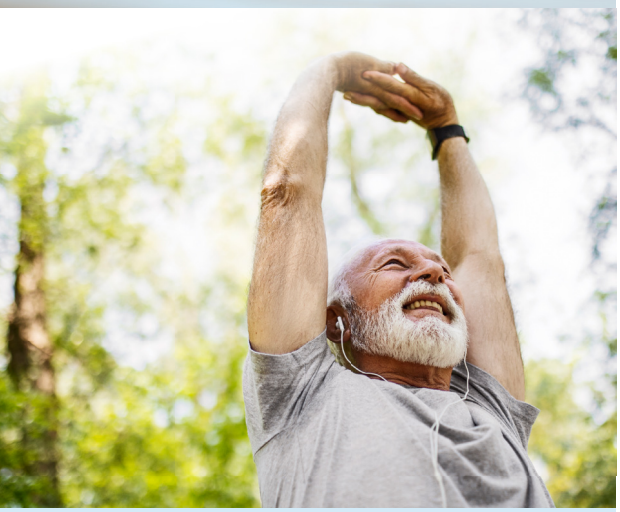
Hydrochloric acid (HCl) plays an important role in overall health. It is essential for the absorption of minerals such as potassium, iron and calcium and is responsible for triggering several different intestinal hormones and enzymes. The hormone gastrin within the stomach produces gastric acid (HCl). Once food arrives in the stomach, gastric glands are stimulated to produce HCl. The exact amount is based on the amount of protein content in the food. Once the pH of the stomach returns to normal, HCl production slows down. This negative feedback relies on food timing and pH of the stomach. Stomach acid is a crucial component for overall healthy digestion and the proper utilization of nutrients.

Pepsin

Pepsin is a digestive enzyme that breaks down and digests proteins found in certain foods, including eggs, meat and dairy products. When food is ingested, pepsinogen is released by chief gastric cells found within the stomach lining. Hydrochloric acid is needed to convert pepsinogen to become the active enzyme pepsin; it also helps maintain the low pH within the stomach that is required for pepsin activity. This enzyme is responsible for breaking down these dietary proteins into smaller peptides to be correctly absorbed within the small intestine.

Hydrochloric acid and enzymes including pepsin must be present to unbind vitamin B-12 from protein-containing foods.[2] We use vegan acid-stable protease (to naturally activate the body's own pepsin).*





MucoSave FG

MucoSave FG is made up of two herbal extracts containing polysaccharides of prickle pear cladodes (Opuntia cus indica (L.) and biophenols of olive leaves (Olea europaea (L.) MucoSave FG has been shown to have protective effects on the stomach lining. These benefits translated into reducing occasional indigestion, gas and bloating.*

Betaine HCl+ for Optimal Health

Gastric acid secretion decreases naturally with age. Hydrochloric acid support immune defense, proper digestion and assimilation of key nutrients. Methods that neutralize gastric acid or inhibit acid secretion can interfere with proper digestion and possibly lead to malabsorption.[3] A lack of hydrochloric acid can also disrupt healthy microflora balance and lead to a more acidic environment. Enzyme Science's Betaine HCl+ has been formulated with a gentle potency of hydrochloric acid, protein-digestive enzymes and soothing herbs for an overall healthy digestive system.*

References

1 Moon A, Solomon A, Beneck D, Cunningham-Rundles S. Positive association between Helicobacter pylori and gastroesophageal reflux disease in children. J Pediatr Gastroenterol Nutr. 2009 Sep;49(3):283-8.

2 King CE, Leibach J, Toskes PP. Clinically significant vitamin B12 deficiency secondary to malabsorption of protein-bound vitamin B12. Dig Dis Sci. 1979 May;24(5):397-402.

3 Smith JL. The role of gastric acid in preventing foodborne disease and how bacteria overcome acid conditions. J Food Prot. 2003 Jul;66(7):1292-303.

Disclaimer: The information in this document is for educational purposes only and is only intended for healthcare practitioners. It is not to be distributed.

Additional information was made available by the ingredient manufacturers.

As the practitioner division of Enzymedica, America's #1 digestive enzyme company, we know you trust us to help your clients – our integrity and quality reflect the values of your practice. This is our promise.

ENZYME SCIENCE®

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*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.