

Betaine HCl Pepsin & Gentian Bitters

**Doctor's
BEST**

Science-Based Nutrition™



Optimal stomach acid production lessens the burden on the remainder of the digestive process, including enzyme production from the pancreas.

As mentioned earlier, the presence of optimal stomach acid is necessary for the digestion and absorption of critical nutrients. Amino acids and other peptides from proteins, minerals, vitamin B12 and folic acid are examples of nutrients that require proper levels of stomach acid for their absorption and usage. The presence of adequate acid in the stomach is also required for the conversion of the digestive enzyme pepsin. Pepsin is produced in the stomach from its precursor pepsinogen, which is secreted by cells known as chief cells, and functions to help with the digestion of proteins. Pepsin breaks proteins down into their amino acid components.

Ideal stomach acid production is also essential for maintaining a healthy bacterial balance in the intestines. Firstly, acid production in the stomach itself provides a protective barrier that keeps the stomach environment safe. Secondly, appropriate levels of stomach acid lead to less remaining food fragments that may cause an imbalance in the growth of normal bacterial flora in the intestines.

Achieving the correct balance of flora is a key to maintaining proper digestive function and overall health.

Research also suggests that the body's capacity to produce stomach acid normally declines as we age. Moreover, stress and other factors may impact proper stomach acid production. Occasional heartburn, bloating, belching, discomfort, and a "sour stomach" may often result from this. Food that we eat enters the stomach through the esophagus, or food pipe. At the junction of the esophagus with the stomach is a muscular structure known as the lower esophageal sphincter (LES).

INGREDIENTS

Betaine HCl Pepsin & Gentian Bitters contains three nutritional factors that perform complementary functions designed to support the efficiency of the digestive process. Research suggests that the efficiency of stomach acid production may be altered with the ageing process. Supplementing with Betaine HCl may support the stomach's digestive capacity. Pepsin is an enzyme produced by the body to digest protein-containing foods in the stomach. Pepsin works in conjunction with stomach acid to support protein digestion. Gentian is an herb used traditionally in many cultures to optimize digestive capacity and tonify the digestive tract. Its bitter nature may help to stimulate the body's production of digestive enzymes. For optimal digestive support, use Betaine HCl Pepsin & Gentian Bitters in conjunction with Doctor's Best Digestive Enzymes, a uniquely formulated, full-spectrum high potency digestive enzyme blend.

BENEFITS

- Supports the stomach's digestive capacity*
- Optimizes digestive efficiency*

Betaine HCl and Pepsin

Betaine HCl is a form of HCl used as a nutrient to supplement the stomach's own production of HCl, or stomach acid. While occasional indigestion may be a result of acid irritating tissue in the structure above the stomach known as the esophagus, a line of research suggests that the cause of this irritation may actually be less than optimal stomach acid production.

Stomach acid is normally produced by the parietal cells of the stomach and the function of stomach acid is to break down food that enters the stomach into smaller fragments and nutrient components. These components move through the stomach into the small intestine where they are further broken down by digestive enzymes in the upper part of the small intestine. The individual nutrients that result from the digestion of proteins, fats and carbohydrates can then be absorbed and assimilated by the body and used for metabolism and growth.

Supplement Facts

Serving Size 1 capsule
Servings per container 120 & 360 servings

	Amount per serving	% Daily Value
Betaine HCl	650 mg	†
Pepsin	250,000 FCC Pepsin Units	†
Gentian (<i>Gentiana lutea</i>) root	20 mg	†

Daily Value not established.

Other Ingredients: Gelatin (capsule), silicon dioxide, stearic acid, magnesium silicate.

Suggested Adult Use: Take 1 capsule with food, three times daily, or as recommended by a nutritionally-informed physician.

Non-GMO / Gluten Free

Store in a cool dry place.

* 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.

When food enters the stomach for digestion, the LES normally contracts, narrowing the passageway between the esophagus and the stomach and preventing the backflow of stomach contents into the esophagus. A major trigger for the process of tightening the sphincter is the presence of sufficient stomach acid. When sufficient stomach acid is sensed, the LES will close. Adequate stomach acid production is an essential criterion for the sphincter to function properly and prevent the backflow of stomach contents.¹

A recent study assessed the incidence and causes of low vitamin B12 levels in elderly patients. The researchers suggest that the incidence of decreased vitamin B12 in the elderly, based on results of some epidemiological studies, is as high as 30-40%. When they looked at the possible causes of low B12 levels in 200 individuals that they followed, they found that lack of access to food-B12 accounted for 60-70% of the cases.² In other words dietary B12 is bound to foods, generally animal proteins. The protein is normally broken down in conjunction with acid and pepsin in the stomach. Optimal production of stomach acid may therefore support the efficiency of this process by helping to release vitamin B12 that is bound to the protein source, leaving it available to be absorbed. The absorption of countless other nutrients may also be impacted by appropriate stomach acid and pepsin levels.

Gentian Root

Gentian is an herb that is native to parts of Europe and Asia. The root has been used extensively by traditional herbalists to support digestive function due in large part to its bitter constituents. Its present day use as a health-promoting herb dates back to the Romans and Greeks, and related species have even been used in the Indian Ayurvedic system. Various traditional texts classify gentian as a bitter tonic and digestive stimulant, due to its ability to promote the secretion of digestive enzymes. The German Commission E has approved the use of gentian for digestive support, which promotes secretion of saliva and digestive juices.³

Supplementation with the combination of nutrients and cofactors present in Betaine HCl Pepsin & Gentian supports the normal digestive function of the stomach and helps to ensure that the body maintains the efficiency of nutrient absorption from the foods that we eat. Gentian serves to stimulate digestive secretions in the stomach, priming it to digest the food that we eat, while supplemental Betaine HCl and pepsin provide support to the body's innate production of these digestive factors.

SCIENTIFIC REFERENCES

1. Wright J, Lenard L. Why stomach acid is good for you: natural relief from heartburn, indigestions, reflux & GERD. Lanham, MD: M. Evans & Co.; 2001
2. Andres E, Loukili NH, Noel E, others. *CMAJ* 2004;171:251-9.
3. Blumenthal M, Ed. Herbal Medicine: Expanded Commission E Monographs. Newton, MA: Integrative Medicine Communications; 2000.



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