



# Digestive Support



## CLINICAL APPLICATIONS

- Supports Healthy Digestion and Maximizes Nutrient Absorption
- Supports Gastric Acid Balance and Digestive Function
- Provides Protease-Rich Digestive Enzymes for Improved Protein Breakdown
- Helps Maintain Healthy Gastrointestinal Flora

This product is a full-spectrum enzyme strategically designed to support each phase of digestion. In the gastric phase, betaine HCl and pepsin prime the stomach, ensuring proper pH to initiate the first phase of digestion. This sets up the second stage of digestion, the enteric phase, in which high-concentration pancreatin, which includes protease, amylase, and lipase, is released and activated in the small intestine to ensure proper protein breakdown and fat absorption. This unique blend of high-powered enzymes works in synergy to enhance digestion and ensure maximum nutrient intake.

### Overview

Because of our hectic lifestyles, and the way we often consume food that is overcooked, digestion can often be less than optimal. Poor digestion can produce bloating and occasional gas, cramping, diarrhea or constipation, and even food intolerances. Incomplete digestion of food proteins may also be linked to food sensitivities, and improper digestion of foodstuffs can cause foods to be fermented in the gut, and can lead to the proliferation of “bad” bacteria at the expense of “good” intestinal bacteria. More complete digestion removes a potential food source for these bad bacteria, allowing for the complete breakdown of food proteins which helps support regular bowel movements. This important enzymatic action originates in four areas: the salivary glands, the stomach, the pancreas and the wall of the small intestine. The unique

enzyme blend in this product works in harmony to assist each phase of digestion and ensure each food component is effectively broken down for better absorption.

### Enzyme and Stomach Acid Depletion<sup>†</sup>

Depletion of enzymes and stomach acid is a natural consequence of aging. An estimated 30% of Americans suffer from low levels of stomach acid, which plays an important role in the initial breakdown of protein and other foods. Dwindling stomach acid can result in improper digestion of foods. Studies have shown that hydrochloric acid production decreases with age. According to one study, 30% of men and women suffer from low acid production.<sup>1</sup> A second found that 40% of post-menopausal women lacked basal acid secretions.<sup>2</sup> Since stomach acid and healthy digestive enzymes are essential for access to nutrients from foods, depletion of enzymes and hydrochloric acid may result in suboptimal nutritional status. Ongoing use of acid-reducing medications, such as proton pump inhibitors, can also deplete stomach acid.

### Gastric Phase Digestion (Stomach)<sup>†</sup>

Betaine hydrochloride is an acidic form of betaine, used in the gastric phase to help bring the stomach to a more acidic pH to aid in digestion. Studies have shown the ability to secrete gastric acid decreases with age. Common symptoms of low gastric acidity include: bloating, belching, burning and

### Enzyme

Pepsin .....  
 Pancreatin  
   Protease .....  
   Amylase .....  
   Lipase .....  
 Papain .....  
 Bromelain .....

### Breaks down

Proteins, such as meats and eggs  
 Proteins, such as meats and eggs  
 Starches, such as potatoes, rice and bread  
 Fats  
 Proteins, such as meats and eggs  
 Proteins, such as meats and eggs



flatulence immediately after meals, a sense of “fullness” after eating, indigestion, diarrhea or constipation, multiple food sensitivities, and nausea after taking supplements.<sup>3</sup> This product also contains pepsin, a protease secreted in the stomach by chief cells for added digestive power in the gastric phase.

### Enteric Phase Digestion (Small Intestine)<sup>†</sup>

Pancreatin, bromelain, papain and ox bile extract support better enteric phase digestion in the small intestine for further digestion of proteins and fats. Pancreatin extract is composed of three different enzymes: amylase, lipase and protease. All help to digest starch, protein and fat and enhance enzyme activity to support digestion. Eighty percent of pancreatic enzymes by weight are proteases.<sup>4</sup> Lipase works with ox bile extract to emulsify and digest fats. Bile, excreted by the liver and stored in the gallbladder, mixes with chyme (partially digested food), aiding in the digestion of fats and helping the body to excrete waste. Research has shown that papain, a protease derived from papaya, can help digest wheat gluten in the small intestine and render it harmless in those who are gluten sensitive.<sup>4,5,6</sup> Finally, bromelain, an enzyme extracted from pineapple, aids in the digestion of protein and has been shown to help maintain normal levels of inflammation.

### Directions

1-2 capsules before each meal or as recommended by your health care professional.

### Does Not Contain

Gluten, yeast, artificial colors and flavors.

### Cautions

If you are pregnant or nursing, consult your physician before taking this product.

Supplement Facts <sup>v2</sup>		
Serving Size 2 Capsules		
Servings Per Container 45 & 90		
	Amount Per Serving	% Daily Value
Sodium	15 mg	<1%
Pancreatin	350 mg	*
Protease (from Pancreatin) (70,000 USP Units)		*
Amylase (from Pancreatin) (70,000 USP Units)		*
Lipase (from Pancreatin) (5,600 USP Units)		*
Betaine Hydrochloride USP	300 mg	*
Pepsin	150 mg (450,000 FCC Units)	*
Ox Bile (Desiccated)	120 mg	*
Bromelain (from Pineapple)	100 mg (240 GDU)	*
Papain	100 mg (600,000 USP Units)	*

\* Daily Value not established.

### References

1. Krasinski SD, Russell RM, Samloff IM, Jacob RA, Dallal GE, McGandy RB, Hartz SC. Effect on hemoglobin and several serum nutritional indicators. *J Am Geriatr Soc.* 1986 Nov;34(11):800-6. Fundic atrophic gastritis in an elderly population.
2. Grossman MI, Kirsner JB, Gillespie IE. Basal and histalogstimulated gastric secretion in control subjects and in patients with peptic ulcer or gastric cancer. *Gastroenterology* 1963;45:15-26.
3. Murray, Michael and Pizzorno, Joseph, Encyclopedia of Natural Medicine, Prima Publishing, Rocklin, CA, 1991, pp. 43, 50--56.
4. Whitcomb, D.C. and Lowe, M.E. Human pancreatic digestive enzymes. *Dig Dis Sci.* 2007; 52(1):1-17.
5. Messer, M., Anderson, C.M. and Hubbard, L. Studies on the mechanism of destruction of the toxic action of wheat gluten in coeliac disease by crude papain, *Gut*, 1964, 5, pp. 295-303.
6. Messer, M. and Baume, P., Oral papain in gluten intolerance. *Lancet*, 1976, ii, p. 1,022.

