

Plant Enzyme Digestive Formula

*Vegetarian enzyme blend to support optimum digestion and nutrient absorption**

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Plant Enzyme Digestive Formula is comprised of a proprietary blend of broad-spectrum microbial-based digestive enzymes to support optimal digestion of proteins, fats, and carbohydrates.* This digestive support formula may be especially helpful for the improved digestion of plant foods such as grains and beans, as well as dairy products, which commonly induce digestive upset due to antinutritional factors found in plants such as protease inhibitors, tannins, lectins and phytates.¹⁻³

Plant Enzyme Digestive Formula is provided in a vegetable capsule that contains no animal products or betaine HCl (hydrochloric acid), making it an ideal comprehensive formula for vegetarians and vegans, and for patients with stomach and esophageal problems who cannot tolerate additional HCl or already have sufficient HCl activity. Compared to their animal-based counterparts, microbial-derived enzymes have greater pH stability and can work over a broader pH range within the GI tract, able to survive its harsh environment.⁴ Supplementation with digestive enzymes may be beneficial for occasional gas, bloating, abdominal discomfort, bowel irregularity, or a feeling of excessive fullness after eating a small amount of food, and some gastrointestinal diseases.^{5,6*}

The mechanical and enzymatic breakdown of food begins in the mouth, but the stage for efficient digestion is truly set in the stomach. Stomach acid (HCl) denatures proteins, unraveling them in order to give proteases more surface area to work upon. It also provides the proper acidity to trigger the release of bicarbonate ions in the duodenum, which creates the alkaline environment required for optimal efficacy of pancreatic enzymes in the small intestine.⁷ The pancreas produces enzymes that are required for digestion and absorption of food. Enzymes secreted by the pancreas include lipases, proteases, and amylases, which digest fats, proteins, and starches, respectively. Proper functioning of the digestive tract is crucial for the overall health of the body.

Deficiency of endogenous production of digestive enzymes may lead to occasional signs of indigestion, such as mild gas, bloating, constipation, and feeling excessively full after meals.⁸ Weakened digestion means the body will not effectively absorb vitamins, minerals, fats, or amino acids, leading to nutrient deficiencies and imbalanced fatty acid ratios which may detrimentally affect the functioning of other areas of the body including the immune system, bone, and joint health, energy levels, balanced moods, reproductive health, and more.

Acute and chronic stressors, food sensitivities (e.g., gluten, dairy), eating on the run, certain medications, alcohol use, aging, and a number of health conditions can compromise digestive function. Fortunately, plant-based enzymes can assist in the healthy breakdown and assimilation of foods.

Plant Enzyme Digestive Formula includes broad-spectrum support for digesting carbohydrates, proteins, and fats:

- **Carbohydrate-digesting enzymes:** amylase, glucoamylase, cellulase, hemicellulase, diastase, beta-glucanase, and invertase. These are included for the breakdown of simple sugars as well as complex carbohydrates, starches, and fiber. This product also contains lactase, for the digestion of lactose - the 'milk sugar.'⁹
- **Protein-digesting enzymes:** protease, acid protease, alpha-galactosidase, protease SP
- **Fat-digesting enzyme:** lipase

Plant Enzyme Digestive Formula may benefit*:

- Pancreatic exocrine insufficiency^{6,8,16}
- Malabsorption conditions
- Weakened digestive and assimilation due to various conditions (e.g., IBD, Celiac disease, bariatric surgery, etc.)⁶
- Lactose intolerance⁹
- Occasional indigestion, bloating, gas, constipation, excessive fullness
- Those who cannot tolerate betaine HCl supplementation
- Those with food allergies/sensitivities
- Vegetarians and vegans

Food Allergies

Individuals who do not secrete enough proteases and amylases, and who have impaired gastric digestion may suffer from food allergies.^{10,11} Evidence suggests protease/antiprotease imbalances in the gut contribute to increased intestinal permeability and epithelial damage as the mucosal barrier is thin and highly susceptible to proteolysis, and therefore proteases play a significant role in regulated intestinal permeability.^{12,13} Failure to digest food allows for large molecules of the undigested food to be absorbed and contribute to such problems as food allergies, colitis, and immune system imbalances. Proteases are essential in preventing the deposit of immune complexes in body tissue, and gastric digestion has been shown to significantly reduce IgE binding and histamine release capacity.¹⁰ Undigested food also allows yeast organisms to thrive.¹⁴ Thus, those with an overgrowth of *Candida albicans* may benefit from supplementation with Plant Enzyme Digestive Formula.*

Inflammation

Proteases are important in helping to prevent tissue damage during inflammation and the formation of fibrin clots.¹⁵ Fibrin promotes inflammation by forming a wall around the area of inflammation that results in the blockage of blood which leads to swelling. Fibrin can also contribute to the development of blood clots that have the potential to dislodge and produce strokes or heart attacks.

Recommended Use

- Take one capsule per day with a meal, or as directed by your health care practitioner.

Warning: Consult your health care practitioner before use if you are pregnant, nursing, taking medication, or have a medical condition.

Supplement Facts

Serving Size 1 capsule

Amount Per Serving	% Daily Value
PhytoENZ™ Proprietary Blend	105 mg *
Amylase, Protease SP, Protease, Diastase, Lactase, Glucoamylase, Alpha-Galactosidase, Beta-Glucanase, Acid Protease, Phytase, Cellulase, Hemicellulase, Invertase, Lipase	

*Daily Value not established.

Other Ingredients: Microcrystalline cellulose, cellulose (capsule), vegetable stearate.

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/techsheet-references/plant-enzyme-digestive-formula-references.pdf>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities. Individual monitoring, including liver function tests, may be appropriate.

*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.

To contact Designs for Health, please call us at (860) 623-6314, or visit us on the web at www.designsforhealth.com.