

Enzycore

Comprehensive Blend of Enzymes and Whole Food Ingredients to Support Healthy Digestion and Maximize Nutrient Absorption

Digestion is a complicated process made harder by our lifestyle and the effects of aging. Enzyme supplementation complements the body's natural enzyme production and compensates for barriers to optimal digestion.

Enzymes are proteins that break down food into molecules our body can use for energy or to reassemble into other essential compounds. Enzymes go to work as soon as we put food in our mouth (as part of saliva) and are active in both the stomach and the small intestines.

What does Enzycore contain?

Proprietary Enzyme Blend

Our comprehensive blend is derived from microbial sources. This type of enzyme can be used at a lower dose than animal-derived enzymes with similar results. Also, microbial enzymes work within a broader range of pH than animal enzymes.[†] Our blend supports the breakdown of proteins, fat, and carbohydrates and contains:

- › Protein Enzymes
 - Peptidase
 - Proteases
- › Fat Enzyme
 - Lipase
- › Carbohydrate enzymes
 - Acid maltase
 - Alpha-galactosidase
 - Amylase
 - Glucoamylase
 - Invertase
 - Lactase

Bromelain is an enzyme complex extracted from pineapple stems and juice that has a long history of use in Central American and South American traditional medicine. When taken with meals, as recommended for Enzycore, bromelain is believed to help break down protein into its component amino acids.[†]

Glutamine is an amino acid that is used as a building block for other amino acids and compounds like glutathione. Some of our cells that require a lot of energy (like those in the small intestine) can use glutamine as an energy source. In this way, glutamine supports the integrity of the intestinal lining and the immune cells associated with the intestines. This amino acid can be depleted by stress, which can in turn slow the body's natural regeneration and healing process.[†]

Kale, a cruciferous vegetable, has been linked to good health through a variety of studies. Kale contains organosulfur compounds and carotenoids like lutein that have been examined for their specific role in activating detox enzymes and supporting eye health, respectively. The benefit from trace amounts of organosulfur and lutein have not been determined, but the amount of kale in this supplement is designed to provide benefit in conjunction with a healthy diet.[†]

Beet Powder contains betaine, a phytochemical linked to health through its role in chemical reactions. Betaine in the body is a byproduct of the breakdown of another compound, choline, and is used to convert amino acids from one form to another. Trace amounts of betaine have not been studied, but the amount in this product is designed to provide benefit in conjunction with a healthy diet.[†]

Please copy for your patients.



Introduced in 2010



Content:

150 capsules

Suggested Use: One capsule three times per day with meals, or as directed.

Supplement Facts:

Serving Size: 1 capsule

Servings per Container: 150

	Amount per Serving	%DV
Calories	2	
L-glutamine	350 mg	
Vegetarian Enzyme Blend:	46 mg	
Acid maltase (1MaltU), alpha-galactosidase (45 GalU), amylase (1,800 DU), bromelain (32,880 FCCPU), glucoamylase (3 AGU), invertase (170 SU), lactase (325 ALU), lipase (230 FIP), peptidase (820 HUT), protease 3.0 (3 SAPU), protease 4.5 (4,930 HUT), protease 6.0 (1,640 HUT)		

Proprietary Blend: 142 mg

Kale (whole plant) and beet (root).

Other Ingredients: Cellulose, maltodextrin, and calcium stearate.

Sold through health care professionals.

Whole Food Philosophy

Our founder, Dr. Royal Lee, challenged common scientific beliefs by choosing a holistic approach of providing nutrients through whole foods. His goal was to provide nutrients as they are found in nature—in a whole food state where he believed their natural potency and efficacy would be realized. Dr. Lee believed that when nutrients remain intact and are not split from their natural associated synergists—known and unknown—bioactivity is markedly enhanced over isolated nutrients. Following this philosophy, even a small amount of a whole food concentrate will offer enhanced nutritional support, compared to an isolated or fractionated vitamin. Therefore, one should examine the source of nutrients rather than looking at the quantities of individual nutrients on product labels.



800-558-8740 | standardprocess.com

GF This product contains less than 10 parts per million of gluten per serving size or less than 20 parts per million per the suggested use listed on each product label. **V** Vegetarian (Lacto-ovo)

[†]These statements have not been evaluated by the Food & Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

Enzycore

How Enzycore Keeps You Healthy

Enzycore offsets the conditions that lead to less than optimal digestion and supports the normal digestive process.

Aging—After infancy, we all experience a reduction in the enzyme that processes milk sugar (lactose). Supplementation with Enzycore can help digest the lactose in milk. Also, it's common for older people to eat less. In these cases, it's vital for them to extract as many nutrients as possible from each meal. Supplementation can help with this process.†

Emotional Upset—Digestion is closely tied to our nervous system. If we're always in "fight or flight" mode, that state can alter the way digestion takes place: it can speed up, slow down, or change our intestinal microflora. Also, emotional states, like feeling depressed, are associated with poor food choices since foods high in fat or sugar activate the "reward" response in our brain. To offset this cycle, enzyme supplementation can enhance the body's production of enzymes that break down fat and sugar.†

21st-Century Life—Rushing has become a national pastime, and leisurely meals are increasingly rare. This can lead to less than optimal digestion because we're skipping the "cephalic phase" of digestion: this is when food we smell or taste triggers saliva, gastric and pancreatic juice, as well as intestinal secretions. Bypassing this phase can have physical effects on how digestion proceeds.†

Digestive Aids—The drugstore digestive-aid aisle is longer than ever. Unlike other products, Enzycore is designed to support the digestive tract through the addition of helpful enzymes, building blocks, and whole food ingredients rather than by suppressing of the body's natural function.†

What Makes Enzycore Unique

- It is comprehensive, addressing digestion along with inflammation and energy needs of intestinal cells through inclusion of glutamine
- It contains trace amounts of beneficial phytonutrients from beet powder (betaine) and kale (organosulfur compounds and lutein)
- Our enzyme blend is made of microbial enzymes, which work throughout a larger pH range

Certified Organic Farming

A healthy ecosystem is created by using organic farming techniques, such as rotating crops, fertilizing the soil with nutrient-rich cover crops and byproducts from our processing, practicing strict weed-control standards, and continually monitoring the health of our plants

- Assures the soil is laden with minerals and nutrients
- Ensures plants are nutritionally complete and free from synthetic pesticides

Manufacturing and Quality-Control Processes

- Upon harvesting, nutrient-rich plants are immediately washed and promptly processed to preserve nutritional integrity
- Degreed microbiologists and chemists in our on-site laboratories continually conduct bacterial and analytical tests on raw materials, product batches, and finished products to ensure consistent quality and safety
- Vitamin and mineral analyses validate product content and specifications to assure high-quality essential nutrients are delivered

Studies on nutrients generally use large doses and these studies, some of which are cited below, are the basis for much of the information we provide you in this publication about whole food ingredients. See the supplement facts for Enzycore.

- B Pan, D Li, X Piao, L Zhang, L Guo. Effect of dietary supplementation with alpha-galactosidase preparation and stachyose on growth performance, nutrient digestibility and intestinal bacterial populations of piglets. *Arch Tierernähr*. 2002;56(5):327-337.
- B Wesley-Hadzija, H Pilon. Effect of diet in West Africa on human salivary amylase activity. *Arch Oral Biol*. 1972;17(10):1415-1420.
- BJ Lyle, JA Mares-Perriman, BE Klein, JL Greger. Antioxidant intake and risk of incident age-related nuclear cataracts in the Beaver Dam Eye Study. *Am J Epidemiol*. 1999;149(9):801-809.
- Complementary Medicines. Bromelain. 2009; University of Maryland Medical Center. *Complementary and Alternative Medicine Index (CAM)*. Accessed January 2010 from <http://www.umm.edu/altmed/articles/bromelain-000289.htm>.
- Complementary Medicines. Glutamine. 2009; University of Maryland Medical Center. *Complementary and Alternative Medicine Index (CAM)*. Accessed January 2010 from <http://www.umm.edu/altmed/articles/glutamine-000307.htm>.
- CR Engwerda, D Andrews, A Ladhams, TL Mynott. Bromelain modulates T cell and B cell immune responses in vitro and in vivo. *Cell Immunol*. 2001;210(1):66-75.
- CR Engwerda, D Andrews, M Murphy, TL Mynott. Bromelain activates murine macrophages and natural killer cells in vitro. *Cell Immunol*. 2001;210(1):5-10.
- Davidson A. *The Oxford Companion to Food*. New York: Oxford University Press; 2006.
- Evans C. Malnutrition in the Elderly: A Multifactorial Failure to Thrive. *The Permanente Journal*. 2005;9(3).
- Food and Drug Administration. Carbohydrase enzymes derived from *A. niger* (CFR 173.120)
- Food and Drug Administration. Carbohydrase enzymes derived from *R. oryzae* (CFR 173.130)
- Food and Drug Administration. GRAS notice.
- GH Perry, NJ Dominy, KG Claw, et al. Diet and the evolution of human amylase gene copy number variation. *Nat Genet*. 2007;39(10):1256-1260.
- HR Vasanthi, S Mukherjee, DK Das. Potential health benefits of broccoli - a chemico-biological overview. *Mini Rev Med Chem*. 2009;9(6):749-759.
- J.V. Castell, G. Friedrich, C.S. Kuhn, Poppe GE. Intestinal absorption of undegraded proteins in men: presence of bromelain in plasma after oral intake. *Am J Physiol*. 1997;273:G139-146.
- KS Kuhn, M Muscaritoli, P Wischmeyer, P Stehle. Glutamine as indispensable nutrient in oncology: experimental and clinical evidence. *Eur J Nutr*. 2009; [epublish ahead of print. November 21].
- Linus Pauling Institute. Choline. 2009; Oregon State University. Linus Pauling Institute. Micronutrient Research for Optimum Health. Accessed January 2010 from <http://lpi.oregonstate.edu/info/center/othernuts/choline/>.
- M Di Stefano, E Miceli, S Gotti. The effect of oral alpha-galactosidase on intestinal gas production and gas-related symptoms. *Dig Dis Sci*. 2007;52(1):78-83.
- M Mussell, K Kroenke, RL Spitzer, JB Williams, W Herzog, B Lowe. Gastrointestinal symptoms in primary care: prevalence and association with depression and anxiety. *J Psychosom Res*. 2008;64(6):605-612.
- N Gang, B Wansink, Inman J. The influence of incidental effect on consumers' food intake. *J Mark*. 2007;71:194-206.
- NA Kratzmann, H Fillmann, J Mauriz, et al. Effects of glutamine on proinflammatory gene expression and activation of nuclear factor kappa B and signal transducers and activators of transcription in TNBS-induced colitis. *Inflamm Bowel Dis*. 2008;14(11):1504-1513.
- National Digestive Diseases Information Clearinghouse. Heartburn, Gastroesophageal Reflux (GER), and Gastroesophageal Reflux Disease (GERD). 2007; Accessed January 2010 from <http://digestive.nidk.nih.gov/diseases/pubs/gerd/>.
- National Enzyme Company. Enzyme Frontiers - Digestion and beyond 2009.
- NS Scrimshaw, Murray E. The acceptability of milk and milk products in populations with a high prevalence of lactose intolerance. *Am J Clin Nutr*. 1988;49(4 Suppl):1079.
- P Detsopoulos, DB Panagiotakos, S Antonopoulou, C Pittavos, C Stefanadis. Dietary choline and betaine intakes in relation to concentrations of inflammatory markers in healthy adults: the ATTICA study. *Am J Clin Nutr*. 2008;87(2):424-430.
- Pocock G, Richards CD. *Human Physiology, the basis of medicine*. Oxford University Press; 2006.
- Rosas M. The role of enzyme supplementation in digestive disorders. *Altern Med Rev Dec*. 2008;13(4):307-314.
- SA Gdulak, RM Threette, Kare M. Cephalic Reflexes: their role in digestion and possible roles in absorption and metabolism. *The Journal of Nutrition*. 1987;117:1191-1196.
- SS Schiffman. Taste and smell losses in normal aging and disease. *JAMA*. 1997;278(16):1357.
- TL Pawley, Berthoud H. Diet and cephalic phase insulin responses. *Am J Clin Nutr*. 1985;45:991-1002.
- TW Buford, MB Cooke, LL Riddi, GM Hudson, BD Shelmadine, DS Willoughby. Protease supplementation improves muscle function after eccentric exercise. *Med Sci Sport Exerc*. 2009; [Epub ahead of print: Sept 2].
- Y Nakamura. Chemoprevention by isothiocyanates: molecular basis of apoptosis induction. *Forum Nutr*. 2009;61:170-181.