

TPP™ GASTRO is a complex, active enzyme formulation that is designed to alleviate gastrointestinal discomfort, improve digestive function, and strengthen epithelial cell vitality in the gut.

SUPPLEMENT FACTS			
Serving Size 1 Capsule			
Amount Per Serving		% Daily Value	
Tzyme™ Polysaccharolytic Blend	150	mg	*
Phytase	60	FTU	*
Alpha galactosidase	365	Gal U	*
Amylase	3,495	DU	*
Glucosylase	9	AGU	*
Pectinase/pectin esterase	20	endo-PG	*
Malt diastase	42	DP ^o	*
Invertase	14	SU	*
Lactase	140	ALU	*
Cellulase	40	CU	*
Hemicellulase	40	HCU	*
Lysozyme	14	MCG	*
Tzyme™ Protease Blend (acid, neutral, alkaline exo/endo peptidases, calcium citrate) (44,500 HUT)	80	mg	*
Tzyme™ AntiOx Blend (Beta carotene, Flaxseed, Lipoic acid, Ginseng root, Vitamin E succinate, CoQ10)	45	mg	*
Marshmallow root extract	80	mg	*
Papaya leaf	80	mg	*
Ginger root	70	mg	*
Bitter Orange peel	60	mg	*
Gotu Kola extract	40	mg	*
Fennel seed	40	mg	*
Globe Artichoke extract	30	mg	*
Aloe vera leaf	15	mg	*
Lipase	50	U	*
Irish Moss	15	mg	*
Peppermint leaf	10	mg	*
* Daily Value not established			

Other ingredients: Vegetarian Capsules (cellulose & water)
Enzyme activity is measured in Food Chemical Codex (FCC) units.
Store tightly sealed in a cool, dry place. Keep out of reach of children.

Tzyme™ is the trademark of a proprietary blend of highly active, functional enzymes. These enzymes are pH balanced and GI tract stable. This blend is formulated to enhance the digestive process and impart systemic benefits.

Tzyme™ Protease Blend - This proprietary blend of enzymes consists of alkaline, neutral, and acid proteases. These enzymes are active in a wide range of pH's, ensuring that proper protein digestion will initiate in the stomach. The addition of the endo- and exo-peptidases in this product

(thus with a wider range of specificities) ensures that the blend will help to prevent the formation of toxigenic amines by hydrolyzing dietary and cellular debris in the GI tract.

Tzyme™ AntiOx Blend - The highly active antioxidants in this blend are incorporated in order to ensure the vitality of epithelial cells in the gut. The nutrients that are included in this blend prevent the further oxidation of vital digestive hormones and enzymes.

Tzyme™ Polysaccharolytic Blend - This enzyme blend helps to facilitate the digestion of all carbohydrates, since the enzymes in this blend can tolerate the low pH of the gastric juice. It is important to note that no single carbolytic enzyme can adequately hydrolyze the various carbohydrates in human diets. Therefore, the Tzyme™ polysaccharolytic blend is formulated to ensure optimum polysaccharide digestion. **Amylase** catalyzes the complete digestion of starch in the gastrointestinal tract. **Malt diastase** attacks starch that is cleaving off (primarily disaccharides). **Lactase** is for the digestion of lactose (milk sugar) into both glucose and galactose. **Invertase** breaks down sucrose into both glucose and fructose. **Alpha galactosidase** cleaves off the non-reducing terminal 1-3, 1-4, or 1-6 linked galactose residues in oligosaccharides, such as stachyose and raffinose. **Cellulase** has been added to this formulation in order to increase the water-binding capacity of the cellulosic fibers in the diet. The binding of water increases stool bulk and decreases bowel transit time. Additionally, the presence of cellulase will increase the ability of cellulose to remove toxins. **Hemicellulases** hydrolyze various complex carbohydrates, such as β -1,4-glucans, α -L-arabinosides, β -D-mannosides, 1,3- β -D-xylans, and other polysaccharides. **Xylanase** (endo-1,4- β -xylanase) hydrolyzes xylan polymers (β -1,4-linked xylopyranose polymers) in order to yield short-chain xylo-oligosaccharides of varying lengths². **Macerase** and **pectinase** break down pectins that are commonly found in fruits and vegetables. **Phytase** (inositol hexaphosphoric acid) hydrolyzes phytic acids (phytates) that are found in grains, seeds, rhizomes, and other plant-derived foods. The hydrolysis of phytates prevents mineral chelation and improves mineral absorption.

TPP™ Gastro also contains the following herbs that are known to soothe and palliate gastrointestinal irritation:

Bitter Orange peel improves sluggish digestive systems and GI discomforts. It contains antioxidants that help control free radicals in the body. Additionally, this ingredient is known to have carminative effects on the GI tract.

Marshmallow root extract is a well-recognized soothing herb that supports healthy mucous membranes. Marshmallow root also soothes irritated intestinal epithelia, as in gastritis. Marshmallow is used internally to treat inflammation and mucosal afflictions, including diarrhea¹.

Ginger root extract is an excellent remedy for many digestive complaints, including indigestion, nausea, and gas. Its beneficial effects are largely due to its volatile oil and oleoresin content². One mechanism by which ginger achieves its effects is through support for mucin production (which protects the digestive tract)³. Ginger root contains zingiban, a digestive enzyme whose effectiveness may even exceed that of papain⁴.

Aloe Vera has been used for centuries for medicinal purposes. Recent studies have shown that aloe helps to alleviate peptic ulcers, improve digestion, control GI tract gas formation, and act as an effective demulcent.

Green Papaya leaf contains papain, a proteolytic enzyme. Papaya Leaf has been known for its wonderful digestive properties and has even inherited the reputation of "biological scalpel" because it selectively digests dead tissue without affecting the surrounding live tissue. It has been used to treat many skin diseases, wounds, and ulcers. Papaya Leaf also has properties that protect the stomach mucosa from damage and ulcer formation.

Gotu Kola extract's primary active constituents are triterpenoids, but it contains many other active molecules that may be important in the overall activity of the herb. Gotu kola is used in **TPP™ Gastro** because of its ability to support the normal structure of mucous membranes (epithelium and underlying connective tissue)⁵.

Globe Artichoke contains caffeoylquinic acid compounds, which are probably the most important constituents for stimulating bile secretion and for lowering cholesterol⁶.

Fennel seed extract contains about 8% volatile oil (about 80% anethole plus fenchone and methyl chavicol), which relieves gas² while the other actions of fennel seed promote gastrointestinal motility. In higher concentrations, as in this formula, it also acts as an antispasmodic⁷.

Peppermint extract is an excellent herb for the digestive system, since it relieves gas, increases the flow of digestive juices and bile, and relaxes the muscles of the gut⁴. Peppermint oil inhibits gastrointestinal smooth muscle⁸ and destroys many kinds of microorganisms that create severe digestive problems, as in irritable bowel symptoms⁹.

INDICATIONS:

Occasional heartburn, Frequent diarrhea, and other GI discomforts.

RECOMMENDED DOSAGE:

Take one (1) capsule with every meal or snack. Take one (1) capsule between meals instead of an anti-acid as often as needed. Take each dosage with at least 8 oz. of liquid. If you have difficulty swallowing capsules, then remove contents from capsule, mix with a small amount of tepid water, and ingest immediately.

Dosage may be increased according to need as indicated by a health care professional.

Available in bottles of 60 capsules.

NO FILLERS/NON-ALLERGENIC

TPP™ Gastro should be taken in addition to:

- TPP™ Digest
- TPP™ Protease
- TPP™ Probiotic

REFERENCES:

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9. Blitz et al., 1963. J. Osteopathol. Soc. 62:731
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These statements have not been evaluated by the U.S. Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.