

TPP™ Lypo is formulated to control the persistence of lipoproteins such as LDL in the blood circulation and also to minimize the absorption of cholesterol. The effects of several cholesterol and triglyceride-lowering herbal ingredients were optimized in this functional enzyme-based product. Additionally, TPP™ Lypo provides effective antioxidants that scavenge and correct free radicals within the aqueous and lipophilic cellular environments.

SUPPLEMENT FACTS			
Serving Size 1 Capsule			
Amount Per Serving		% Daily Value	
Vitamin A (100% as beta carotene)	3,750	IU	75%
Vitamin E	2	IU	8%
Chromium	100	mcg	83%
Tzyme™ Lipase Blend (1,360 LU)	150	mg	*
Garcinia Cambogia extract	150	mg	*
Tzyme™ Polysaccharolytic Blend	61	mg	*
Amylase	4,900	DU	*
Alpha galactosidase	63.4	Gal U	*
Malt diastase	59	DP°	*
Invertase	20	SU	*
Lactase	196	ALU	*
Glucoamylase	.042	AGU	*
Lysozyme	20	MCG	*
Guggulipids std. extract	60	mg	*
Bladderwrack algae	60	mg	*
Tzyme™ AntioxBlend (Beta carotene/ mixed carotenoids, Lipoic acid, Siberian Ginseng, Korean Ginseng, Vitamin E, CoQ10, Chromium polynicotinate, Flaxseed)	50	mg	*
Garlic (bulb)	40	mg	*
Lecithin	40	mg	*
Tzyme™ Protease Blend (acid, neutral, alkaline exo/endo peptidases, bromelain and papain)	30	mg	*
Globe Artichoke extract	30	mg	*
Rice bran	20	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™ Lipase** - This is a blend of lipid-digesting enzymes. Normal digestion of dietary fat is accomplished by lipases

with the assistance of bile, which is produced by the liver and is normally supplied by way of the gall bladder. The function of bile is to bring ingested fats into emulsion so as to facilitate the work of the lipases. Incomplete digestion of fats may result in diarrhea and/or, more seriously, essential fatty acid deficiency. Adequate absorption of essential fatty acids is necessary to maintain membrane structure in cells throughout the body and to maintain healthy skin. Essential fatty acid deficiency also reduces blood-clotting time. Incomplete digestion of fat allows food particles to get coated with fat, which therefore interferes with the hydrolysis of other food components, such as proteins and carbohydrates.

**Tzyme™ Protease Blend** - This proprietary blend of enzymes consists of alkaline, neutral, and acid proteases, including bromelain and papain. These proteases are active in a wide range of pH's, ensuring that proper protein digestion will begin in the stomach. Our blend also includes enzymes with a wide range of specificities (i.e. both endo- and exo- peptidase activities) in order to ensure the highest degree of protein hydrolysis. The proteases will assist the hydrolyzing of dietary and cellular debris in the GI tract, which will prevent the formation of toxigenic amines.

**Tzyme™ Polysaccharolytic Blend** - The enzymes in this blend facilitate the digestion of all carbohydrates. They ensure the bio-availability of both nutrients and active ingredients from dietary carbohydrates and also from the complex macrostructures of the plant materials.

**Tzyme™ AntiOx Blend** - This blend of highly active antioxidants is incorporated in order to ensure the vitality of gut epithelial cells and to prevent further oxidation of vital digestive hormones and enzymes. Two of these essential ingredients are **Chromium picolinate** and **polynicotinate**. They deliver bioavailable chromium, an essential trace element that is required for normal glucose metabolism. The benefits of Chromium picolinate include improved lipid patterns, stabilized glucose tolerance, lowered cholesterol, and enhanced lean body mass<sup>1,2</sup>. Chromium nicotinate may be even more effective<sup>8</sup>.

TPP™ Lypo also contains several herbal ingredients that have been proven to enhance cholesterol and triglyceride control.

**Garcinia Cambogia** contains hydroxycitrate, a powerful lipogenic inhibitor, meaning that it inhibits fat production from carbohydrates. Fatty acids are synthesized from acetyl-CoA which, in turn, is made from citrate (a product of the Krebs's cycle) by the enzyme citrate lyase. Hydroxycitrate inhibits this formation of acetyl-CoA from citrate<sup>3</sup>.

**Guggulipids extract** is an extract of gum guggulu which has been extensively studied. Multicentric clinical trials found that guggulipid begins lowering serum cholesterol and triglycerides after 3-4 weeks<sup>5</sup>.

**Bladderwrack** provides iodine, which provides support for the thyroid and thus for the body's overall energy metabolism. It is also known to lower cholesterol levels.

**Rice bran** is the source of rice bran oil, which has been shown to improve plasma lipid and lipoprotein profiles<sup>4</sup>. Oryzanol, the primary constituent of rice bran oil, is believed to be responsible for this effect and also inhibits cholesterol absorption without reducing cholesterol synthesis<sup>7</sup>.

**Garlic extract** has been studied extensively and has repeatedly been found to have a wide variety of beneficial effects, including the lowering of serum cholesterol<sup>1</sup>.

**Lecithin** assists bile with fat emulsification in the digestive tract. It is also a necessary precursor to effective digestion by lipases and optimal triglyceride hydrolysis.

**Globe artichoke extract** contains caffeoylquinic acid compounds, which are probably the most important constituent for stimulating bile secretion and for lowering cholesterol<sup>6</sup>.

#### **INDICATIONS:**

CHOLESTEROL/TRIGLYCERIDE IMBALANCES  
CHRONIC SKIN CONDITIONS  
PROPER FAT DIGESTION

#### **RECOMMENDED DOSAGE:**

Take one (1) capsule either between meals or with meals. Drink at least 8 oz. of liquid with each dosage. If you have difficulty swallowing capsules, then remove contents from capsule, mix with a small amount of tepid water, and ingest immediately.

Additional capsules may be taken with meals to enhance the digestion of proteins.

**Dosage may be increased as indicated by your health care professional.**

**Available in bottles of 60 capsules.**

**NO FILLERS/NON-ALLERGENIC**

**TPP™ Lypo should be taken in addition to:**

**TPP™ Digest**

**TPP™ Probiotic**

#### **REFERENCES:**

1. Press, Raymond, et al. "The effect of Chromium picolinate on serum cholesterol and apolipoprotein fractions in human subjects." *Western Journal of Medicine*. January, 1990: 152 (1): 41-45.
2. Evans, Ph.D., Gary W., "Review of studies with Chromium picolinate in Humans: Part I-Part II." *The Nutrition Report*. October - November, 1989; 7 (10-11); 73 and 81.
3. Saha, A.K. et al. "Malonyl-CoA regulation in skeletal muscle: its link to cell citrate and the glucose-fatty acid cycle" *Am J Physiol* 1997; 272: E641-8.
4. Adler, A.J. & Holub, B.J., "Effect of garlic and fish-oil supplementation on serum lipid and lipoprotein concentrations in hypercholesterolemic men" *Am J Clin Nutr* 1997; 65: 445-50.
5. Nityanand, S., Srivastava, J.S., and Asthana, O.P., "Clinical trials with guggulipid. A new hypolipidaemic agent" *J Assoc Physicians India* 1989; 37: 323-8.
6. Lietti A., "Choleretic and cholesterol lowering properties of two artichoke extracts" *Fitoterapia* 1977; 48: 153-8.
7. Wiseman H., "Dietary influences on membrane function: Importance in protection against oxidative damage and disease" *Nutr Biochem* 1996; 7: 2-15.
8. Raghuram, T.C. and Rukmini, C., "Nutritional significance of rice bran oil" *Indian J Med Res* 1995; 102: 241-4.

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.