

# Pantethine

## Vitamin B5 Metabolite

**Pantethine** is an important metabolite in the production of cellular energy and in lipid metabolism.\* It appears in the body during the metabolism of pantothenic acid (vitamin B5). Pantethine is the stable disulfide form of an intermediate (pantetheine) in the transformation of pantothenic acid to coenzyme A. Coenzyme A plays a key role in the metabolism of amino acids, carbohydrates and lipids, and is essential for the synthesis of other important substances such as acetylcholine. Whereas pantothenic acid is water soluble and unused pantothenic acid is quickly excreted via the urinary tract, pantethine can stay in the bloodstream for up to 16 hours, maximizing its support of energy and lipid metabolism.\*



#75000  
60 vegetarian capsules

### Key Features

- Supports the metabolism of amino acids, carbohydrates, and lipids\*
- Important for the production of cellular energy\*
- May support healthy cholesterol and triglycerides within normal levels\*



800.545.9960  
info@allergyresearchgroup.com  
www.allergyresearchgroup.com



Pantethine supports the health of the cardiovascular and circulatory systems by supporting a healthy balance of low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C) and triglycerides, within normal levels, and may help decrease the cholesterol content of platelet membranes.\* In addition, pantethine may have antioxidant activity, and may increase platelet membrane fluidity.\*

Animal studies demonstrate that pantethine can support inhibition of lens opacification, and supports protection against hepatotoxins, including carbon tetrachloride, halocarbons, autoxidized linoleate and ethanol.\* Although these results have not been demonstrated yet in human studies, a small study with humans showed that pantethine lowered serum acetaldehyde following ethanol ingestion.\*

Besides pantethine, other dietary supplements have been shown in numerous studies to provide a variety of benefits in maintaining cardiovascular wellness.\* Vitamins B6, B12 and folic acid are known to be crucial for regulating homocysteine levels.\* Niacin has been shown to support healthy LDL and HDL cholesterol and triglycerides within normal levels.\* Antioxidants, such as vitamin E, vitamin C and beta-carotene help prevent damage to arteries from oxidized forms of LDL-C.\* Phytosterols can block the absorption of cholesterol by the body, thereby preventing cholesterol levels from building up.\* Pantethine is a welcome addition to the arsenal of nutritional elements that support cardiovascular health.\*

We use only Pantestin®, which is a high quality, pharmaceutical grade pantethine, produced under strict pharmaceutical cGMP standards. Pantethine is very safe and has no known negative drug interactions. Doses up to 1,200 milligrams daily are reported to be well tolerated. There are a few reports of gastrointestinal effects, including nausea and heartburn.

**Pantestin®**

Pantestin® is a registered trademark of Daiichi Pharmaceutical Co., Ltd., Japan.

## Supplement Facts

Serving Size	2 Capsules
Servings Per Container	30

Amount Per Serving	% Daily Value
--------------------	---------------

Pantethine (from 1.2 g of Pantestin®)	660 mg	†
---------------------------------------	--------	---

† Daily Value not established.

Other ingredients: Hydroxypropyl methylcellulose, L-leucine.

**Suggested Use:** As a dietary supplement, 1 or 2 capsules two times daily with meals, or as directed by a healthcare practitioner.

### References:

Abucham J, Bollinger-Gruber J, Reichlin S. *Pharmacol Biochem Behav.* 1989 Jul;33(3):585-9.

Arsenio L, et al. *Clin Ther.* 1986;8(5):537-45.

Bertolini S, et al. *Int J Clin Pharmacol Ther Toxicol.* 1986 Nov;24(11):630-7.

Bon GB, Cazzolato G, Zago S, Avogaro P. *Atherosclerosis.* 1985; 57:99-106.

Branca D, et al. *Internat J Vit Nutr Res.* 1984; 54:211-216.

Butler JD, Zatz M. *J Clin Invest.* 1984 Aug;74(2):411-6.

Carrara P, et al. *Atherosclerosis.* 1984 Dec;53(3):255-64.

Cighetti G, et al. *J Lipid Res.* 1987 Feb;28(2):152-61.

Cighetti G, et al. *Biochim Biophys Acta.* 1988 Nov 25;963(2):389-93.

Clark JL, et al. *Exp Eye Res.* 1996; 62:75-84.

Congdon NT, et al. *Curr Eye Res.* 2000; 20:17-24.

Coronel F, et al. *Am J Nephrol.* 1991;11(1):32-6.

Donati C, et al. *Clin Nephrol.* 1986 Feb;25(2):70-4.

Eto M, Watanabe K, Chonan N, Ishii K. *Artery.* 1987;15(1):1-12.

Friberg G, Pande J, Ogun O, Benedek GB. *Curr Eye Res.* 1996; 15:1182-1190.

Gaddi A, et al. *Atherosclerosis.* 1984 Jan;50(1):73-83.

Galeone F, et al. *Curr Ther Res.* 1983; 34:383-390.

Hayashi H, Kobayashi A, et al. *Jpn Heart J.* 1985 M96. ar;26(2):289-Hiramatsu K, et al. *Tokai J Exp Clin Med.* 1981 Jan;6(1):49-57.

Hiramatsu N, et al. *J Nutr Sci Vitaminol (Tokyo).* 1989 Aug;35(4):303-13.

Hoffman B, Lang A, Ostermann G, et al. *Curr Ther Res.* 1987; 41:791-801.

Maggi GC, et al. *Curr Ther Res.* 1982; 32:380-386. Murai A, et al. *Artery.* 1985;12(4):234-43. Nagiel-Ostaszewski I, et al. *Res Commun Chem Pathol Pharmacol.* 1990; 67:289-292. Osono Y, et al. *J Atheroscler Thromb.* 2000;7(1):55-8. Prisco D, et al. *Curr Ther Res.* 1984; 35:700-706. Shinomiya M, et al. *Atherosclerosis.* 1980 May;36(1):75-80. Tawara K, et al. *Jpn J Pharmacol.* 1986 Jun;41(2):211-22. Tomikawa M, Nakayasu T, et al. *Atherosclerosis.* 1982 Feb;41(2-3):267-77. Vecsei L, Alling C, Widerlov E. *Arch Int Pharmacodyn Ther.* 1990 May-Jun;305:140-51. Vecsei L, et al. *Arch Int Pharmacodyn Ther.* 1989 May-Jun;299:14-27. Vecsei L, Widerlov E, et al. *Pharmacol Biochem Behav.* 1990 Jan;35(1):165-70. Vecsei L, Widerlov E. *Prog Neuropsychopharmacol Biol Psychiatry.* 1990;14(6):835-62. Watanabe A, et al. *Alcohol Clin Exp Res.* 1985 May-Jun;9(3):272-6.