Homocysteine Reduction + Adrenal Formula™

PureCell™

Clinical Applications

- Support Healthy Response to Stress and Fatigue
- Support Carbohydrate Metabolism/Possibly Reduce AGEs
- Support Healthy Nervous System/Adrenal /Immune Function
- Support Healthy Hormone Balance
- Support Cardiovascular Health (including blood cells)
- Support Cognition and Healthy Mood

*Homocysteine Reduction + Adrenal Formula™ contains the entire spectrum of B vitamins to support a very wide range of bodily and stress-related functions. It features activated forms of vitamins B2, B6 and B12, with the addition of Benfotiamine, a patented, safe, fat-soluble, more physiologically-active form of thiamin.**

All New Medicine Foundation® Formulas Meet or Exceed cGMP quality Standards

Discussion

The water-soluble B vitamins have to be absorbed in the small intestine and then go to the liver where they are biotransformed into their active co-enzyme forms. Gastrointestinal and/or hepatic impairment is likely to affect absorption and the activation process. Plasma pyridoxal 5' phosphate (P5P) levels were found to be significantly lower than normal in 22 out of 31 patients with impaired liver function.[1]

Homocysteine Reduction + Adrenal Formula™ contains vitamins B1, B2, B6, and B12 in their physiologically-active form making them easier to absorb and "ready-for-use". For example, in patients receiving pyridoxine HCl, only 33 percent responded with an increase in plasma P5P; however, the level increased in all of the patients receiving P5P.[1]

Perhaps the most interesting ingredient in this formula is Benfotiamine (S-benzoylthiamine-Omonophosphate), a safe, fat-soluble analog of thiamine that not only raises blood and tissue levels of thiamine at least five times higher than the water-soluble salt, but also remains bioavailable after the oral administration up to 3.6 times longer than thiamine salt.[2] Bentothiamine is the most potent of a class of thiamine-derived compounds present in small quantities in members of the Allium genus. The superiority of its biological activity compared to thiamin rests in its structure - a thiazole ring opens to allow easy diffusion through a membrane and then closes to become structurally active.

Benfotiamine increases transketolase activity thus reducing hyperglycemic damage by blocking three destructive metabolic pathways: 1) it decreases the glucose metabolites that lead to the build up of certain types of detrimental advanced glycation end products (AGEs); 2) it normalizes protein kinase C activity; 3) it protects the diabetic retina by preventing the activation of nf-kappaB there.[3] It also protects the kidneys and endothelial cells from glucose-related damage.[4] Benfotiamine is useful for correcting thiamine deficiency seen in alcoholism[5,6] and end stage renal disease.[7]

1201 US Highway 1 Ste 46
North Palm Beach, FL 33408 USA
888-561-HEAL(4325)

Supplement Facts

Serving Size: 1 Capsule
Servings Per Container: 90

	Amount Per Serving	%Daily Value
Vitamin B1 (thiamine HCL)	20 mg	1,333%
Vitamin B2 (riboflavin 5' phosphate)	20 mg	1,176%
Vitamin B3 (as niacin)	10 mg	50%
Vitamin B3 (as niacinamide)	130 mg	650%
Vitamin B6 (as pyridoxal 5' phosphate)	20 mg	1,000%
Folic Acid (as calcium folinate)	800 mcg	200%
Vitamin B12 (as methylcobalamin)	400 mcg	6,666%
Biotin	400 mcg	133%
Vitamin B5 (as pantothenic acid)	150 mg	1,500%
Choline (as citrate)	30 mg	**
Benfotiamine	20 mg	**

** Daily Value not established.

Other Ingredients: Vegetarian Capsule (HPMC and water), cellulose, silicon dioxide and magnesium stearate.

Dosing:

Take one or two capsules per day or as directed by your healthcare practitioner.

References

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2. Pharmacokinetics of thiamine derivatives especially of benfotiamine. : Int J Clin Pharmacol Ther. 1996 Feb;34(2):47-50 [PMID: 8929745]

3. Thornalley PJ. The potential role of thiamine (vitamin B(1)) in diabetic complications. Curr Diabetes Rev. 2005 Aug;1(3):287-98. [PMID: 18220605]

4. Stirban A, Negrean M, et al. Benfotiamine prevents macro- and microvascular endothelial dysfunction and oxidative stress following a meal rich in advanced glycation end products in individuals with type 2 diabetes. Diabetes Care. 2006 Sep;29(9):2064-71 [PMID: 16936154]

5. Woelk H, Lehrl S, Bitsch R, Köpcke W. Benfotiamine in treatment of alcoholic polyneuropathy: an 8-week randomized controlled study (BAP I Study). Alcohol. 1998 Nov-Dec;33(6):631-8 [PMID: 9872352]

6. Ayazpoor U. [Chronic alcohol abuse. Benfotiamine in alcohol damage is a must] MMW Fortschr Med. 2001 Apr 19;143(16):53. German. No abstract available. [PMID: 11367995]

7. Schupp N, et al. New approaches for the treatment of genomic damage in end-stage renal disease. J Ren Nutr. 2008 Jan;18(1):127-33 [PMID: 18089459]

Cautions

Consult your healthcare practitioner if you have or suspect you have a medical condition, are taking prescription drugs or are pregnant or lactating.

*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.

PureCell™