

Cardio B

Product #546

Supplement Facts

Serving Size 1 Capsule
Servings Per Container: 60

1 capsule contains	Amount Per Serving	% Daily Value
Vitamin B6 (as Pyridoxine HCl USP™)	50 mg	2500%
Folic Acid	5 mg	1250%
Vitamin B12 (as Methylcobalamin)	1 mg	16667%
Betaine (Trimethyl Glycine)	500 mg	*

* % Daily Value not established

DOSE FORM:

Two-piece capsule, size 00

OTHER INGREDIENTS:

microcrystalline cellulose, silicon dioxide, vegetable-grade magnesium stearate, vegetable capsules.

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. The information provided here is intended to help health care professionals make informed decisions about recommending this product safely and effectively.

PRODUCT RATIONALE:

To ensure that the biochemical pathways that facilitate the conversion of homocysteine to less harmful metabolites are supplied with the necessary co-factors and precursors. Several of these ingredients and their combinations have been shown in clinical trials to modify serum homocysteine levels. For a complete review see Ref. 1.

INGREDIENT INFORMATION:

Folic Acid Required for the conversion of homocysteine to methionine. (See Folate cycle on reverse side.)

Low levels of daily folic acid intake are associated with high serum homocysteine levels, especially in the elderly (2,3).

Randomized Clinical Trial (4): 150 patients with ischemic heart disease were given 1 of 5 doses or placebo (200,400,600,800,1000 mcg/day). Serum homocysteine levels were measured after 3 months of supplement use and again 3 months after stopping supplements. Regardless of initial homocysteine level, increasing folic acid had increasing homocysteine lowering effects. Those with higher initial homocysteine levels had greater lowering effects with folic acid.

Vitamin B12 Required co-factor in the conversion of homocysteine to methionine via folate pathway (see figure reverse side)

B12 deficiency is common in the elderly and those consuming vegetarian diets.

Lancet 2002- B12 is considered by many to be the second most important nutrient of concern, next to folic acid in reducing homocysteine levels (5).

Meta-analysis of folic acid and B12 reveal that homocysteine levels are dropped, on average, about 25% by folic acid regimens and an additional 7% by the addition of B12 to the regimen (6).

Hemodialysis patients with hyperhomocystinemia had decreases of almost 20% in 4 weeks with B12 and Folic Acid (1mg each was considered optimal)(7).

Vitamin B6: Needed for the conversion of Homocysteine to Cysteine. (See figure reverse side)

Many elderly are deficient in their intake of B6 (1)

Even low-dose vitamin B-6 was shown to lower homocysteine levels in elderly patients that had previously been supplemented with folic acid and were not B12 deficient (8).

Betaine (TMG): Betaine is often called TMG (Trimethylglycine)

TMG acts as a methyl donor to homocysteine- converting it to methionine. This conversion occurs only in the liver (in humans). Betaine is often used with very high homocysteine levels. (9-10)

FORMULA SYNERGY:

These 4 ingredients represent the most logical and often used combinations of therapeutic agents for the lowering of homocysteine. There are multiple pathways for the reduction of homocysteine, this formula supports the three main pathways.

Combination of 1 mg Folic acid, 400 mcg of B12 and 10 mg of B6 daily were able lower homocysteine levels significantly and prevent re-narrowing of arteries following angioplasty (restenosis)- (11)

Folic Acid (5 mg) and vitamin B12 (500 mcg) improved insulin resistance and endothelial dysfunction, along with decreasing homocysteine levels, in patients with metabolic syndrome.(12)

Folic Acid (5mg) and methylcobalamin (1.5 mg) effectively lowered hip fractures in elderly patients following stroke.(13)

DOSE:

1 capsule daily, with food.

CONTRAINDICATIONS, ADVERSE OR OTHER REACTIONS:

At the recommended dose, few side effects have been reported in the literature. Allergy or sensitivities to components is rare but have been reported. Pyridoxine should not be given to patients on levodopa (antogonist). Use of folic acid may reduce the effectiveness of phytoin.

REFERENCES:

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