



# Methyl B-12/Folate

## Stress control

### DESCRIPTION

Methyl B-12/Folate tablets, available from Medical Wellness Associates, dissolve rapidly in the mouth, and releasing 1,000 mcg of pure vitamin B<sub>12</sub> together with 400 mcg of folic acid.

### FUNCTIONS

Vitamin B<sub>12</sub> is essential for normal energy metabolism of carbohydrate, fat and protein. As a cofactor for methylmalonyl-CoA mutase enzymes, vitamin B<sub>12</sub> helps convert odd chain fatty acids and branched chain amino acids into succinyl-CoA, a common citric acid cycle intermediate. Vitamin B<sub>12</sub> is also required for nucleic acid (DNA) synthesis, methionine synthesis from cysteine, and normal myelin synthesis in the nervous system. Along with vitamin B<sub>6</sub> and folic acid, adequate levels of vitamin B<sub>12</sub> are required to maintain normal plasma homocysteine levels. Elevated plasma homocysteine may be an independent risk factor for developing cardiovascular disease.

There are two distinct mechanisms for intestinal vitamin B<sub>12</sub> absorption; receptor-mediated absorption and passive diffusion. In the first, vitamin B<sub>12</sub> attaches to a salivary "R-binder" protein which transports it into the small intestine, where vitamin B<sub>12</sub> is released. The vitamin then binds to "Intrinsic Factor" (IF), a glycoprotein normally produced by the gastric parietal cells. This vitamin B<sub>12</sub>-IF complex is carried down to the ileum, where it binds to mucosal receptors. Finally, the complex is absorbed and bound to serum vitamin B<sub>12</sub>-binding proteins. The second absorption mechanism, passive diffusion, does not require any carriers, such as B-binder or IF. Only about 1% of free vitamin B<sub>12</sub> is passively absorbed, but this can be nutritionally significant with higher dietary vitamin B<sub>12</sub> intakes.

Almost 40% of the population is suggested to have "low normal" plasma B<sub>12</sub> levels. Strict vegetarians, the elderly, and, HIV/AIDS patients are often at risk for vitamin B<sub>12</sub> deficiency, either due to low dietary intake or impaired absorption. In the elderly, hypo- or achlorhydria maintains the binding of the vitamin

with dietary proteins, leading to malabsorption. Vitamin B<sub>12</sub> deficiency can lead to CNS impairment, including cognition.

### INDICATIONS

Methyl B-12/Folate tablets may be a useful dietary supplement for individuals who wish to increase their intake of vitamin B<sub>12</sub> and folate.

### FORMULA (#7560)

#### Each Tablet Contains:

Vitamin B<sub>12</sub>..... 1,000 mcg  
Folate ..... 400 mcg  
Other ingredients: xylitol, mannitol, natural black cherry and vanilla flavor, carboxymethylcellulose, and ascorbyl palmitate.

### SUGGESTED USE

Adults take 1 tablet daily or as directed by physician. Let tablet dissolve in mouth.

### SIDE EFFECTS

No adverse effects have been reported.

### STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

### REFERENCES

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**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.**

**Medical Wellness Associates**

**6402 Route 30**

**Jeannette, PA 15644**

**1-800-834-4325**

**[www.vitamincoach.com](http://www.vitamincoach.com)**