Vitamin B-12 500 mcg

DESCRIPTION

Vitamin B12 tablets, provided by Douglas Laboratories®, supply 500 mcg of Vitamin B-12 in each easy to swallow tablet.

FUNCTIONS

Vitamin B_{12} is essential for normal energy metabolism of carbohydrates, fat and protein. As a cofactor for methylmalonyl-CoA mutase enzymes, vitamin B_{12} helps convert odd chain fatty acids and branched chain amino acids into succinyl-CoA, a common citric acid cycle intermediate. Vitamin B_{12} is also required for nucleic acid (DNA) synthesis, methionine synthesis from cysteine, and normal myelin synthesis in the nervous system. Along with vitamin B_6 and folic acid, adequate levels of vitamin B_{12} are required to maintain normal plasma homocysteine levels. Elevated plasma homocysteine may be an independent risk factor for developing heart conditions.⁺

There are two distinct mechanisms for intestinal vitamin B_{12} absorption; receptor-mediated absorption and passive diffusion. In the first, vitamin B_{12} attaches to a salivary "R-binder" protein which transports it into the small intestine, where vitamin B_{12} is released. The vitamin then binds to "Intrinsic Factor" (IF), a glycoprotein normally produced by the gastric parietal cells. This vitamin B_{12} -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_{12} -binding proteins. The second absorption mechanism, passive diffusion, does not require any carriers, such as B-binder or IF. The elderly and strict vegetarians are often at risk for vitamin B_{12} deficiency, either due to low dietary intake or impaired absorption.

INDICATIONS

Vitamin B-12 may be a useful dietary supplement for individuals who wish to increase their intake of vitamin B12.

FORMULA (#7928)

Each tablet Contains: Vitamin B-12......500 mcg

SUGGESTED USE

Adults take 1 tablet daily with meals or as directed by a healthcare professional.

SIDE EFFECTS

No adverse side effects have been reported.

STORAGE

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

REFERENCES

Lea R, et al. Pharmacogenet Genomics. 2009 Jun;19(6):422-8.

Kräutler B. Subcell Biochem. 2012;56:323-46. doi: 10.1007/978-94-007-2199-9_17.

Boushey CJ, Beresford SAA, Omenn GS, Motulsky AG. JAMA 1995;274:1049-1057.

Curtis D, Sparrow R, Brennan L, Van Der Weyden MB. Eur J Haematol 1994;52:227-232.

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Ehrenpreis ED, Carlson SJ, Boorstein HL, Craig RM. Dig Dis Sci 1994;39:2159-2162.

Flynn MA, Irvin W, Krause G. J Am Coll Nutr 1994;13:351-356.

Herzlich BC, Schiano TD. J Intern Med 1993;233:495-497.

Herzlich BC, Schiano TD, Moussa Z, et al. Am J Gastroenterol 1992;87:1781-1788.

For more information on Vitamin B-12 visit douglaslabs.com

† 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.

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