

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 B12 is essential for normal energy metabolism of carbohydrate, fat and protein. As a cofactor for methylmalonyl-CoA mutase enzymes, vitamin B12 helps convert odd chain fatty acids and branched chain amino acids into succinyl-CoA, a common citric acid cycle intermediate. Vitamin B12 is also required for nucleic acid (DNA) synthesis, methionine synthesis from cysteine, and normal myelin synthesis in the nervous system. Along with vitamin B6 and folic acid, adequate levels of vitamin B12 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 B12 absorption; receptor-mediated absorption and passive diffusion. In the first, vitamin B12 attaches to a salivary “R-binder” protein which transports it into the small intestine, where vitamin B12 is released. The vitamin then binds to “Intrinsic Factor” (IF), a glycoprotein normally produced by the gastric parietal cells. This vitamin B12-IF complex is carried down to the ileum, where it binds to mucosal receptors. Finally, the complex is absorbed and bound to serum vitamin B12-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 B12 is passively absorbed, but this can be nutritionally significant with higher dietary vitamin B12 intakes.

Almost 40% of the population is suggested to have “low normal” plasma B12 levels. Strict vegetarians, the elderly, and, HIV/AIDS patients are often at risk for vitamin B12 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 B12 deficiency can lead to CNS impairment, including cognition.

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.

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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.

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Your patients trust you.**

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