

Methylcobalamin



Clinical Applications

- Helps to maintain normal circadian rhythm – the natural daily cycle of hormone secretion
- Nutritionally augments the natural function of the pineal gland
- Helps to regulate sleep patterns
- Promotes restful sleep

Methylcobalamin is a pleasant-tasting, orange-flavored, sublingual tablet of vitamin B12 in its bioidentical form. Studies show greater tissue deposition of cobalamin taken in the methylcobalamin form in comparison to cyanocobalamin. Protocols for a variety of neurological conditions require large doses of vitamin B12 making this 5 mg (5000 mcgs) very convenient.

Methylcobalamin Meets or Exceeds cGMP quality Standards

Discussion

The only ways to obtain vitamin B12 are from pre-formed vitamin synthesized in the gut by natural flora, from foods derived from other animals, or from supplementation. Unlike other water-soluble vitamins, the liver stores vitamin B12 (4 to 6 mg) bound to a protein as methylcobalamin or 5'-deoxyadenosylcobalamin. In time, reserve stores may become depleted following poor dietary intake without supplementation, gastric surgery, lack of intrinsic factor, or any other reason for poor intestinal absorption.

Methylcobalamin and adenosylcobalamin are the two coenzyme forms of vitamin B12. Methylcobalamin participates in transmethylation reactions. As a cofactor in the enzyme methionine synthase it functions in the regeneration of methionine by transferring its methyl group to homocysteine. Methylcobalamin is the most active of all B12 homologs in the body with respect to nucleic acid and protein and lipid metabolism. Specifically, it is involved in the isomerization of methylmalonyl CoA to Succinyl CoA, a step in the degradation of the amino acids valine, isoleucine, threonine, and fatty acids with an odd number of carbon atoms. If the vitamin is deficient, abnormal fatty acids could be incorporated into cell membranes, including those of the nervous system.

Vitamin B12 aids in repair of damaged nerve tissue in disorders such as axonal degeneration and demyelination. Methylcobalamin also improves megaloblastic (pernicious) anemia through its involvement in erythroblast maturation, promotion of erythroblast division, and heme synthesis. Deficiency of the vitamin does not allow for the efficient use of the N5-methyl form of tetrahydrofolate for the synthesis of nucleotides needed for DNA replication for the synthesis of red blood cells.

Many vitamin B12 supplements on the market contain cyanocobalamin. The liver is able to convert a small amount of cyanocobalamin to methylcobalamin; however, according to research demonstrating the requirement for high doses, the amount is not sufficient to correct neurological defects or to prevent neurological aging. It has been shown that the amount of cobalamin that accumulates in liver tissue following administration of a small oral dose of methylcobalamin is significantly greater than that following the same dose of cyanocobalamin. Furthermore, the tissues retain a greater amount of cobalamin from methylcobalamin than from cyanocobalamin as concluded from a study showing urinary excretion of one third less methylcobalamin.

RFX
1716 S. Kelly Ave.
Edmond, OK 73013
405.330.3619

Methylcobalamin



Supplement Facts

Serving Size: 1 Sublingual Tablet

Servings Per Container: 60

	Amount Per Serving	%Daily Value
Vitamin B12 (as methylcobalamin)	5 mg	83,333%

Other Ingredients: Xylitol, stearic acid, mannitol, silica, magnesium stearate, citric acid and natural orange flavor.

Dosing:

Dissolve 1 tablet under your tongue daily or as directed by your health care practitioner.

References:

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Additional references available upon request.

*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.

