METHYLCOBALAMIN B12

1000 mcg / 5000 mcg • Quick Dissolve

NPN 80009448
NPN 80044475

RESEARCH INFORMATION

Feature summary

Natural Factors Methylcobalamin B12 provides the superior, biologically available, bioactive form of vitamin B12. This essential nutrient helps prevent vitamin B12 deficiency, is vital for the formation of red blood cells, and assists in the normal function of the immune system and energy metabolism in the body. This convenient, one-per-day, sublingual formula dissolves quickly; suitable for vegetarians, gluten free, and non-GMO.

Methylcobalamin is a coenzyme form of vitamin B12. A coenzyme is a naturally occurring compound, such as a vitamin or mineral, that partners with specific enzymes to help maintain the body's ability to metabolize nutrients. Preformed coenzyme forms of B vitamins, including methylcobalamin, offer immediate, direct nutritional support, even for those with genetic differences that impair metabolism of standard B vitamins.

Natural Factors Methylcobalamin B12 is offered in a sublingual tablet – no need for injections or to swallow pills! This advanced formula, available in different potencies, is ideal for anyone who wants the highest quality, most bioactive form of this key nutrient to prevent B12 deficiency and help maintain good health.

How it works

Vitamin B12 can be depleted by stress, poor diet, certain prescription medications, alcohol, and smoking. A small amount of vitamin B12 is stored in the liver, but it is also water soluble and quickly excreted. Adequate daily intake is essential for health, especially as vitamin B12 deficiency often goes unrecognized until it causes irreversible nerve damage.

Vitamin B12 helps prevent anemia by helping the body use iron and working with folic acid to regulate red blood cell production. It is also important in the production of energy and genetic materials, DNA and RNA. Vitamin B12 is also needed for the production of neurotransmitters that help with memory and learning and help protect the brain as we age.

Cyanocobalamin is the most common form of B12, but requires conversion into active B12 before it can be used by the body. Common genetic differences in B vitamin metabolism can impair conversion and lead to deficiency.

Methylcobalamin is the coenzymated metabolically active form of B12, which the body can use immediately upon absorption to support a range of essential physiological processes.

Research

Methylcobalamin is one of two biologically active forms of vitamin B12 and is an essential cofactor for the enzyme methionine synthase. This enzyme is crucial for cellular metabolism, including the synthesis of nucleic acid, which controls growth and cellular division. Vitamin B12 helps build red blood cells and myelin, the fatty substance that forms a protective sheath around nerves. Deficiency leads to pernicious anemia and cobalamin-associated neuropathy (Jeffery, 1999; Weir & Scott, 1999).

Vitamin B12 also supports homocysteine metabolism and cardiovascular function and is vital for energy production, as it helps the body's ability to metabolize nutrients (Mahajan & Gupta, 2010).

Complications of vitamin B12 deficiency can take years to arise and are typically irreversible. Signs and symptoms include pernicious and megaloblastic anemia, elevated homocysteine levels (a risk factor for heart disease), progressive nerve damage, sore tongue, irritability, weakness, numbness, glossitis, nausea, vomiting, skin issues, tiredness, headache, palpitations, and altered mental status, including personality and behavioural changes (Mahajan & Gupta, 2010).

Several commonly prescribed medications and over-the-counter drugs adversely affect B12 absorption. Metformin (often prescribed long-term for diabetes management) significantly reduces vitamin B12 absorption (by up to 70% in some cases) (Niafar et al., 2015). Proton-pump inhibitors also affect vitamin B12 absorption, with mild B12 deficiency noted in at least 25% of people taking these drugs long term (Hirschowitz et al., 2008).

Cyanocobalamin is the most common form of vitamin B12, but methylcobalamin is one of just two active forms in the body. Sublingual methylcobalamin does not require stomach acid or intrinsic factor for absorption, making it ideal for correcting and preventing vitamin B12 deficiency in older adults, vegans and vegetarians, and anyone with limited dietary intake of vitamin B12 and/or malabsorption issues.

Methylcobalamin dissolves quickly in sublingual form and is passively absorbed directly into the blood stream in sufficient quantities to help correct deficiency (Lederle, 1991; Hoey et al., 2009). Methylcobalamin is active immediately upon absorption, while cyanocobalamin must be converted before the body can use it. Cyanocobalamin is also excreted in urine at around three times the methylcobalamin rate, showing that methylcobalamin is better retained by the body (*Alt Med Review,* 1998). Clinical studies have consistently demonstrated the relative inactivity of cyanocobalamin compared to methylcobalamin, with methylcobalamin being the preferred form for correcting and preventing vitamin B12 deficiency.

The Chicago Health and Aging Project (CHAP) cross-sectional study, involving 121 older adults, found that those with low vitamin B12 status had lower total brain volume and poorer cognitive performance, including poor episodic memory and perceptual speed, as well as higher homocysteine levels (Tangney et al., 2011). A 2012 observational study also indicated that some older adults with mild vitamin B12 deficiency could face a greater risk for accelerated cognitive decline (Morris et al., 2012).

Ingredients

1242/1243
Each tablet contains:
Vitamin B12 (methylcobalamin) ..... 1000 mcg

1247
Each tablet contains:
Vitamin B12 (methylcobalamin) ..... 5000 mcg

Dosage

Recommended adult dose: Dissolve 1 tablet daily under the tongue or as directed by a health care practitioner.

Cautions

Consult a health care practitioner prior to use if you are pregnant or breastfeeding. Consult a health care practitioner for use beyond 4 months. Keep out of the reach of children.

References

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