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ESSENTIALS

VITAMIN B12 500µg

Red blood cell formation, energy metabolism.

Nutritional Information

One Tablet provides:

		*%NRV
Vitamin B12	500 µg	20000

*NRV = Nutrient Reference Values

Take one tablet daily with a meal. Swallow with water.



SUMMARY

- High strength vitamin B12 supplement
- Convenient one a day formula

DESCRIPTION

Vitamin B12 contributes to normal red blood cell formation. It is involved in energy metabolism and plays a role in the reduction of tiredness and fatigue. It also helps to support the functioning of the immune and nervous systems. Stomach acid is needed to release vitamin B12 from foods so anyone with low stomach acid or who is taking antacid medication such as a proton pump inhibitor (PPI) should consider supplementation. Vitamin B12 is primarily found in animal derived foods so supplementation is also recommended for vegetarians and vegans to safeguard their intake of this important nutrient.

VITAMIN B12 DEFICIENCY

Deficiency amongst the over 50s: Vitamin B12 deficiency is common, particularly amongst the elderly, and if untreated can lead to serious complications including dementia, neurological damage and anaemia. National health surveys have demonstrated that an average of 3.3% of adults over the age of 50 have suboptimal levels, while other studies report that percentage to be from 5-15%. Vitamin B12 deficiency and insufficiency is a significant public health concern in the over 50 age group. Stomach acid and digestive capability naturally decline with age and leads to a lesser ability to absorb vitamin B12.¹

Acid lowering medication: Proton pump inhibitors and histamine 2 receptor antagonists (acid blockers) reduce stomach acid. Stomach acid is required to cleave vitamin B12 from foods. A study evaluated the association between the previous use of acid blockers. Acid blockers are significantly associated with vitamin B12 deficiency.¹

Vegan diets: Vitamin B12 is not found in a vegan diet, except for very tiny quantities in certain types of seaweed, which is not enough to rely on. Furthermore, some types of seaweed and algae, traditionally taken by vegans contains a substance called pseudo vitamin B12. This is a substance that is very similar to vitamin B12 but does not have the same biological effect. Pseudo vitamin B12 will compete for absorption with vitamin B12, which can make a deficiency or low dietary status worse.

BIOLOGICAL FUNCTIONS OF VITAMIN B12

Energy production: Vitamin B12 is required directly for the production of energy in the Krebs cycle. Vitamin B12 is required for the creation of methylmalonyl-CoA, which is then used for the synthesis of many organic acids and the energy currency ATP. Insufficient vitamin B12 intake can therefore cause tiredness and fatigue.

Blood and cardiovascular health: Vitamin B12 is essential for the health of the blood and oxygen transportation around the body. A deficiency in vitamin B12 can lead to abnormally large blood cells as seen in megaloblastic anaemia which are inefficient at transporting oxygen around the body. Due to its role in the methylation cycle and the regulation of homocysteine levels, vitamin B12 deficiency is now being studied for a contributory factor for atherosclerosis⁵. High homocysteine levels are an established risk factor for cardiovascular complications, however the exact mechanisms are currently unclear.

The immune system: Vitamin B12 is an essential nutrient for the immune system. It is required in the methylation cycle, a series of biochemical reactions that occurs in each cell. Vitamin B12 works with folate to create the metabolites, cysteine and then glutathione. Glutathione is a powerful antioxidant and a delicate balance is required for the optimum function of lymphoid cells⁴, thus making B12 an essential component of the immune system.

Brain and nerve function: Vitamin B12 is required for the health of the nerves and is actively transported across the blood brain barrier, where its levels are tightly regulated². Vitamin B12 is required for the maintenance of the myelin sheath that coats the nerves and regulates nerve-to-nerve communication. Vitamin B12 deficiency can result in cognitive decline, neurological and psychiatric symptoms², including confusion; memory changes; delirium, hallucinations, delusions, depression, acute psychotic states, manic and schizophreniform states³.

ARE THERE ANY PRECAUTIONS BEFORE OR WHILE TAKING VITAMIN B12 500µg?

Vitamin B12 500µg is intended exclusively for adults and is not recommended for children. Consult a health professional before taking during pregnancy and breastfeeding.

FEATURES

- High potency 500µg per tablet
- As cyanocobalamin

HEALTH NEEDS



SENIOR'S HEALTH



ENERGY



HEART &
CIRCULATION



IMMUNITY

SCIENTIFIC REFERENCES

1. JAMA. 2013;310(22):2435-2442.
2. Nutrients. 2016 Feb; 8:2: 68.
3. Journal of American geriatric society. 1988;36:12:1105-1112
4. Proc Nutr Soc. 2000 Nov;59:(4):595
5. American Family Physician.2003; 67:5:979-986

