

B12 Methylcobalamin

Essential nutrient
support

- HIGH ABSORPTION FORMULA
- HIGHER ABSORPTION METHYL FORM



Vitamin B₁₂ is a member of the vitamin B complex also called cobalamin and is important to good health. It helps maintain healthy nerve cells and red blood cells, and is also needed to make DNA, the genetic material in all cells. Vitamin B₁₂ is bound to protein in food. Hydrochloric acid in the stomach releases vitamin B₁₂ from protein during digestion. Once released, B₁₂ combines with a substance called intrinsic factor (IF) before it is absorbed into the bloodstream.

Bacteria synthesize B₁₂ exclusively and common sources are found primarily in meat, eggs and dairy products. Vitamin B₁₂ is necessary for the synthesis of red blood cells, the maintenance of the nervous system, and is very important for growth and development in children. Deficiency can cause anemia and the degeneration of nerve fibres. Irreversible neurological damage can also occur.

Vitamin B₁₂ is also necessary for the rapid synthesis of DNA during cell division. This is especially important in tissues where cells are dividing rapidly, particularly bone marrow tissues responsible for red blood cell formation. If a deficiency occurs, DNA production is disrupted and abnormal cells called megaloblasts are formed. This results in anemia. Symptoms include excessive tiredness, breathlessness, listlessness, pallor, and poor resistance to infection. Other symptoms can include a smooth, sore tongue and menstrual disorders. Anemia may also be due to folic acid deficiency, folic acid also being necessary for DNA synthesis.

The nervous system

An insulating fatty sheath comprised of a complex protein called myelin surrounds our nerves. B₁₂ plays a vital role in the metabolism of these fatty acids essential for the maintenance of myelin. Prolonged B₁₂ deficiency can lead to nerve degeneration and irreversible neurological damage.

When deficiency occurs, it is more commonly linked to a failure to effectively absorb B₁₂ from the intestine rather than a dietary deficiency. Absorption of B₁₂ requires the secretion from the cells lining the stomach of a glycoprotein, known as intrinsic factor. The B₁₂-intrinsic factor complex is then absorbed in the ileum (part of the small intestine) in the presence of calcium. Certain people are unable to produce intrinsic factor and the subsequent pernicious anemia is treated with injections of B₁₂.

Vitamin B₁₂ can only be stored in small amounts by the body. Total body store is 2–5 mg in adults and around 80% of this is stored in the liver.

Vitamin B₁₂ is excreted in the bile and is effectively reabsorbed. This is known as the enterohepatic circulation. The amount of B₁₂ excreted in the bile can vary from 1 to 10 mcg (micrograms) a day. Reabsorption is the reason it can take over 20 years for deficiency disease to develop in people changing to diets absent in B₁₂. In comparison, if B₁₂ deficiency is due to a failure in absorption it can take 3 years for deficiency disease to occur.

Manufactured under strict GMP (Good Manufacturing Practices)

*For more information, please contact New Roots Herbal
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