

Liquid B12 Complete

Stock #1588-7 (2 fl. oz.)



Liquid B12 Complete provides several important B vitamins necessary for both physical and mental well-being, and specifically for the healthy functioning of the cardiovascular, immune and nervous systems. Liquid B12 Complete provides 1,000mcg of vitamin B12 in each serving and is designed to be taken sublingually (under the tongue). Sublingual vitamin B12 supplementation has been proven to be both effective and convenient, making it easier than ever for individuals to meet their daily requirements.¹

B vitamins are involved in numerous body processes, including energy production, gene synthesis (i.e. DNA replication), combating stress and stabilizing mood. B vitamins are also essential nutrients for mental health, with deficiencies potentially resulting in cognitive impairment and psychosis. In fact, preliminary evidence has confirmed the effectiveness of B vitamin supplementation in enhancing cognitive performance in older adults. In addition, research has proven that B vitamins can reduce the risk of coronary heart disease and fetal neural tube defects (a type of birth defect), and may even help prevent Alzheimer's disease. Results of a recent

double-blind, placebo-controlled trial published in the *Journal of the American Medical Association* found that B vitamin supplementation significantly decreased the incidence of major adverse events following angioplasty—a common surgical procedure for unclogging atherosclerotic (plaque-laden) heart arteries. In particular, results showed that B vitamin supplementation reduced the risk of dying from or suffering a heart attack by one-third, as well as reduced the risk of re-clogging of the repaired artery.²⁻⁹

Since B vitamins are water-soluble, which prevents them from being stored in the body, it is vitally important that they be consumed daily. Unfortunately, many environmental factors can increase the body's B vitamin requirements far beyond what can be satisfied by the diet—antibiotic use, a diet high in refined foods, vegetarianism and age can drastically increase the body's depletion of B vitamins, thus further elevating the need for supplementation.²

Vitamin B12 (cobalamin) is best-known for its role in healthy blood formation, for which it is needed to form red blood cells in the bone marrow. Insufficient B12 results in pernicious anemia, which involves symptoms including fatigue, weakness, lightheadedness and pallor (extreme paleness). Research has shown that poor B12 absorption causes a high percentage of older adults to feel fatigued or tired. In fact, a study conducted by the U.S. Department of Agriculture found that nearly two-fifths of the U.S. adult population exhibits marginal B12 levels. Fortunately, oral B12 supplementation has been shown to promptly correct serum B12 and hemoglobin (the substance in red blood cells that carries oxygen) levels, and may be as effective as conventional B12 injection therapy.^{4,10,11}

Another function of vitamin B12 is in the production of myelin, a fatty substance found in the sheath that covers the nerves. Consequently, B12 deficiency impairs nervous system function. A recent study was conducted to review B12 deficiency in patients with spinal cord injury. Of the 16 patients identified as having probable B12 deficiencies, 12 (or 75%), appeared to experience clinical benefits from B12 supplementation, including reversal of anemia, improved gait, improved mood, improved memory, reduced pain, strength gain and reduced numbness.^{4,12}

Findings from a recent study suggest that B12 deficiency may be associated with age-related hearing loss. Study findings showed that poor auditory function was consistently associated with low concentrations of serum vitamin B12. Specifically, elderly participants with impaired hearing had 38% lower mean serum B12 levels compared with elderly participants with normal hearing. It is important to note that B12 deficiency is one of the most common vitamin inadequacies among the elderly—anywhere from 5 to 15% of the elderly population may be B12 deficient. Furthermore, atrophic gastritis (chronic inflammation of the stomach that results in the breakdown of the stomach lining), which can lead to B12 malabsorption, affects 20 to 30% of those aged 60 years and older.¹³

A deficiency of vitamin B12 is also thought to contribute to age-related cognitive impairment—low serum B12 concentrations are exhibited by more than 10% of older people. A British study found that patients with low serum B12 levels exhibiting cognitive impairment improved significantly, compared to matched patients, on verbal fluency tests following B12 treatment. Researchers concluded that B12 supplementation may improve frontal lobe and language function in patients with cognitive dysfunction. Furthermore, a high prevalence of low serum B12 levels and other indicators of B12 deficiency have been reported among people with Alzheimer's disease. Although more research is needed, it may be that prolonged B12 deficiency produces irreversible neurological changes seen in this disease.^{3,4,14,15}

In addition, an association between neuropsychiatric disorders and vitamin B12 deficiency has been recognized since 1849 when pernicious anemia was first described. Vitamin B12 deficiency has been implicated in a variety of neuropsychiatric disorders and mild to severe physical symptoms, including confusion, memory loss, leg and finger

incoordination, peripheral neuritis, depression, moodiness and psychosis. Such symptoms can occur even when there are no signs of changes in the blood to indicate either low levels of B12 or anemia. For example, in one case study, a 52-year-old female experienced complete remission of psychiatric symptoms without recurrence for the next 4 years with vitamin B12 as the only specific therapy instituted.^{4,5,15-17}

Furthermore, a high incidence of anemia and decreased serum B12 levels has been found in patients with rheumatoid arthritis, psoriatic arthritis and systemic lupus erythematosus.¹⁸

Interestingly, a diagnosis of vitamin B12 deficiency is typically based on measurement of serum B12 levels; however, about 50% of patients with subclinical disease exhibit normal B12 levels. A more sensitive and accurate method of screening for B12 deficiency is achieved by measuring serum methylmalonic acid and homocysteine levels, which are elevated early in states of B12 deficiency.¹⁶

Fortunately, oral vitamin B12 supplementation has been shown to be an effective alternative to painful intramuscular B12 injections commonly used in the treatment of B12 deficiency. Research has shown that oral supplementation maintains satisfactory serum B12 levels, with patient compliance and acceptability of oral vitamin B12 proving to be excellent. Furthermore, even when intrinsic factor is not present to aid in the absorption of vitamin B12 (as is the case in pernicious anemia), or in other diseases that affect the usual absorption sites in the terminal ileum, oral therapy remains effective.^{16,19,20}

NSP's Liquid B12 Complete provides 1,000mcg of vitamin B12 (cyanocobalamin) per serving. In addition, each 1ml serving (30 drops) provides vitamin B1 (as thiamine mononitrate), vitamin B2 (riboflavin), niacin (as niacinamide), and vitamin B6 (as pyridoxine HCl). Liquid B12 Complete also contains distilled water, sorbitol, vegetable glycerin, natural flavors, citric acid, sodium bicarbonate, malic acid, potassium sorbate, sodium benzoate, and folic acid.

References:

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