

Vitamin B12



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Vitamin B12 (also known as cobalamin) is a water soluble vitamin that plays a key role in the normal functioning of metabolism within the cells, and within the nervous system. Vitamin B12 maintains the myelin sheaths which surround and protect nerve fibers. Without this protective layer, irreversible nerve damage can occur.

The two forms of vitamin B12 we most hear about are methylcobalamin and cyanocobalamin.

Methylcobalamin is the active form of vitamin B12 and is the most effective because it is best absorbed and used within the cells, providing better treatment outcomes.

Cyanocobalamin is a synthetic version of vitamin B12 found in most nutritional supplements and injectable preparations. The body first needs to covert to the active form

and as the name implies, cyanocobalamin contains cyanide. Although it is in trace amounts, the body will need to remove and eliminate this compound. People exposed to cigarette smoke (which contains cyanide) often have higher cyanocobalamin levels. It is mainly used in supplements because of its stability and low cost.

Food sources of vitamin B12 are present almost exclusively in animal foods (meat, poultry, dairy products and eggs) and some fish and seafood. Small amounts of vitamin B12 may be provided by bacteria of various plant foods.

Vitamin B12 is also important nutritionally in the body's metabolism of protein, fat, and carbohydrates. Recently, cobalamin depletion was found to increase the risk of elevating homocysteine levels (causing vascular inflammation) and leading to an increase in the risk of cardiovascular disease.

Methylcobalamin has been used to treat nutritional diseases as well as having a positive effect being an analgesic (painkiller) in diabetic peripheral neuropathy, lower back pain and

neuralgia. Methylcobalamin improves nerve conduction and promotes regeneration of injured nerves.

Methylcobalamin is also being used in the treatment of adaptive behaviors in children with autism. This nutritional treatment involves improving glutathione metabolism. Glutathione is a powerful antioxidant that helps remove heavy metal toxins from the body from vaccines, medications, the environment and toxins found in our food.

Drug induced nutrient depletions can be a significant contributing factor to a wide range of health problems. The anti-diabetic drug metformin (Glucophage, Glumetza, Janumet) will cause malabsorption of B12.

Oral contraceptives, long-term corticosteroids, most antibiotics, tricyclic antidepressants, and anti-ulcer medications also decrease vitamin B12 levels.

Besides sublingual drops, the active form of vitamin B12 methylcobalamin can also be made into a transdermal (topical) cream or into an injectable form available at certain compounding pharmacies. Ask your pharmacist about vitamin B12 and multiple nutrient testing for a minimal cost.

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All of the staff at Concession Medical Pharmacy are committed to working with our patients to make certain they have a solid understanding of their health, medical issues and the range of options available to them. We ensure that our patients are aware of any possible side effects and drug interactions that may be associated with their medication and help them take steps to combat these problems. Our pharmacists take the time to get to know our patients and understand their concerns before we make any recommendations or begin testing. We continue to educate ourselves on the newest, most innovative + effective products and compounding lab techniques that result in the highest standard of care for our patients.

