Methyl-B12
Nanosphere Liposome Spray
60 mL Nutritional Tincture
NPN 80029539

Physica Energetics

Methylation Cycle, Homocysteine, Metal Toxicity

**Indications:**
- Methylation Cycles / Pathways and insufficiencies
- Homocysteinemia
- Mercury Toxicity
- Metabolic Syndromes
- Folic Acid B12 Insufficiency
- Adrenal / Thyroid Insufficiencies
- Blood Sugar

**Directions:**
3-4 sprays 1-2x daily under tongue, swish in mouth for 1 minute then swallow

Please consult with your Physician at all times before taking any supplementation.

Vitamin B6, B12, TMG and folic acid are necessary to help reduce homocysteine and keep the methylation processes occurring.

This metabolic process taking place in every cell and vital organ that uses methyl groups to perform functions that include: helping to regulate levels of histamine (which is a key factor in allergic responses), help protect and regulate DNA, supporting detoxification, protein and neurotransmitter production as well as other brain functions.

**Vitamin B12** is a water soluble vitamin necessary for the maintenance of a healthy nervous system and for the metabolic utilization of fats and proteins. Vitamin B12 is also essential for the synthesis of DNA during cell division and therefore is especially important for rapidly multiplying blood cells. In addition, adequate intake of **Vitamin B12**, along with methylated folate and Vitamin B6, encourages healthy serum homocysteine levels, thereby may be useful in supporting cardiovascular health. TMG (trimethylglycine) works along with methylated folate, B6, and B12 in the metabolism of homocysteine.

Methylation can help the body clear and eliminate histamine, which may cause inflammation, allergic reactions.

**One Liposome Spray Dose Contains:**
- L-5 Methyltetrahydrofolate (MTHF) 200 mcg
- Vitamin B12 (as methylcobalamin) 1000 mcg
- Calcium Folate 200 mcg
- Vitamin B6 2 mg
- Trimethylglycine (betaine) 200 mg

Disclaimer: The commentary is not meant to diagnose, treat or replace conventional treatment, and has not been approved or reviewed by the FDA, Health Canada, BMS, European Union Health Commission, South and Central American regulation agencies etc.
Synergistically Formulated Ingredients

Vitamin B12 (methylcobalamin) works with folate in many body processes including the synthesis of DNA, red blood cells, and helping in the maintenance of the myelin sheath that surrounds nerve cells. A B12 deficiency results in pernicious anemia, impaired nerve function, and impaired mental function. Folate is one of the most essential nutrients for all normal cell growth and replication. It also has a major role in DNA synthesis, without it cells do not divide properly. The benefit of methyl folate and B12 supplementation helps result in a reduction of body concentrations of homocysteine.

Homocysteine is implicated in a variety of undesired conditions and can be discovered at young ages.

Folate deficiency has been linked to depression, atherosclerosis, and birth defects.

Absorption of B12 is a complex situation. Once in the blood, transport proteins bind to B12 and deliver it to the cells. Within the cells, enzymes liberate B12 from the protein complex and convert it to its coenzyme form: methylcobalamin. Supplementation with the coenzyme form methylcobalamin can help overcome B12 deficiency in the cells caused by lack of, or malfunction of, conversion enzymes. This active form of B12, methylcobalamin, may help to recycle homocysteine and the formation of methyl donors.

A B12 deficiency may also impair the immune system's ability to fight off pathogens and viruses.

Trimethylglycine (TMG): Also known as betaine, trimethylglycine (TMG) is an excellent resource of methyl groups - molecules that comprise of one carbon atom and three hydrogen atoms. Trimethylglycine is found particularly in vegetables like beets, spinach, and broccoli. The presence of trimethylglycine in the body initiates the methylation process whereby the methyl groups neutralize detrimental materials in the system and translate them into supportive substances.

References:
Suggestions for Treatment of Chronic Fatigue Syndrome (CFS): The Simple Approach, the Glutathione Depletion—Methylation Cycle Block Hypothesis for the Pathogenesis of CFS by Richard A. Van Koonenburg, Ph.D.