

- ✓ Advanced Methylation Support
- ✓ Promotes Neurological Function
- ✓ Supports Cardiovascular Health
- ✓ Biologically Active B Vitamins
- ✓ Includes Choline



## The Most Dynamic Support in Methyl Group Supplementation For Human Nutrition Today

Premier Research Labs' Phyto-Methylate delivers the most dynamic support in methyl group supplementation for human nutrition today. Phyto-Methylate is a rich source of biologically available methyl donors and cofactors important for advanced cellular functions such as DNA methylation, homocysteine synthesis and protein synthesis. Phyto-Methylate directly delivers advanced methylation through the fully activated methyl donors of folate as 5-methyltetrahydrofolate, B12 as methylcobalamin, B6 as pyridoxal-5-phosphate and choline bitartrate.

## Promoting Healthy Genetic Expression and Cellular Functions

Methylation is the biochemical process of the transfer of one carbon atom and three hydrogen atoms, CH<sub>3</sub> - a methyl group, from one substance to another. Supporting healthy methylation is vital to promoting healthy genetic expression and cellular functions. When sufficient methyl groups are available, it has a positive effect regulating many biochemical reactions throughout the body including cardiovascular, neurological, reproductive and detoxification systems.



These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.



**PRL's Commitment to Excellence:**  
Each PRL Formula Meets or Exceeds FDA/cGMP Standards

**P**REMIER  
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**It is suggested that 60% of the population suffers from a genetic mutation compromising the proper conversion of unmethylated Bs**

Through a series of biochemical reactions with homocysteine, the coenzyme factors of vitamin B12 and folate are critical to the methionine synthase pathway, supporting healthy homocysteine metabolism and S-adenosylmethionine (SAME) production. This methylation cycle only works if enough folate (5-MTHF) and B-12 as methylcobalamin are present.

It is suggested that 60% of the population suffers from a genetic mutation compromising the proper conversion of unmethylated vitamin Bs. Without proper methyl transfer for homocysteine modulation, the necessary formation of methyl donors involved in cardiovascular, neurological, reproductive and detoxification functions cannot be adequately produced.

**The 3 Super Stars: Folate (as 5-Methyltetrahydrofolate), B12 (as Methylcobalamin), B6 (as Pyridoxal-5-Phosphate)**

Premier Research Labs' Phyto-Methylate contains three fully active co-enzymes of the blood-circulating forms of folate (as 5-methyltetrahydrofolate), vitamin B12 (as methylcobalamin) and B6 (as pyridoxal-5-phosphate). While the body is able to absorb food-source vitamin Bs, it must further convert them to these three coenzyme forms in order for it to become metabolically active in the body.

Unfortunately, over half of the U.S. population is unable to metabolize the unmethylated forms of specific B vitamins, namely folate and vitamin B12. When folate (as 5-methyltetrahydrofolate) and vitamin B12 (as methylcobalamin) are provided to the body in these active biologically forms, they are able to yield optimal bioavailability as well as tissue retention which can promote healthy methyl formation.

**Choline Substantially Contributes to the Pool of Methyl Groups**

The enzyme, methylene tetrahydrofolate reductase (MTHFR), catalyzes the first steps of the biosynthesis of sulfur-containing amino acids, including that of methionine via homocysteine. Vitamin B12 (preferably methylcobalamin) is a cofactor for methionine synthase, the enzyme which directly catalyzes this conversion. These relationships are important to acknowledge, as fluctuations in bioavailable B vitamins can shift the dynamics of reactions requiring free choline as well. Choline intake has also been shown to have a direct inverse effect on levels of plasma homocysteine by working in synergy with end-chain B vitamins in homocysteine metabolism because of their shared roles in methylation and amino acid synthesis.

Choline substantially contributes to the pool of methyl groups that can be used for one-carbon transfer reactions with DNA and protein. Choline is oxidized in a two-step process and subsequently remethylates homocysteine to S-adenosylmethionine, a methyl donor necessary for the synthesis of DNA and RNA, the myelin insulation for neurons and other biological materials.

**INGREDIENTS**

Two Vegetarian Capsules Provide:

<b>Choline</b> (from grape fermentation as Choline Bitartrate) . . . . .	110 mg
<b>Vitamin B6</b> (as Pyridoxal-5-Phosphate) . . . . .	25 mg
<b>Vitamin B12</b> (Methylcobalamin) . . . . .	1,000 mcg
<b>Folate</b> (as 5-Methyltetrahydrofolate) . . . . .	400 mcg
<b>Green Methyl Support</b> . . . . .	558 mg
Organic Rice Concentrate ( <i>Oryza sativa</i> ), Organic Barley (leaf) ( <i>Hordeum vulgare</i> ), Organic Oat Grass ( <i>Avena sativa</i> ), Organic Parsley (leaf) ( <i>Petroselinum crispum</i> )	
Other Ingredients: Vegetable Capsules (hydroxypropyl methyl cellulose)	

Suggested Use. Take 2 capsules daily or as directed by a health professional.

Code: 2086 (60 vegetarian caps/bottle); Violite® Container R1.0