L-5-MTHF

MOSS NUTRITION

SUPPORT FOR HEALTHY METHYLATION & FOLATE METABOLISM

Supplement Facts
Serving Size: 1 Capsule
Servings Per Container: 120

	Amount Per Serving	%Daily Value
Folate (as L-5-Methyltetrahydrofolate calcium)	1000 mcg DFE	250%

Other ingredients: Microcrystalline cellulose, hypromellose (capsule), vegetable stearate, silicon dioxide.

Does not contain gluten.

SUGGESTED USE: 1 CAPSULE PER DAY OR AS DIRECTED BY YOUR HEALTHCARE PROFESSIONAL.

WARNING: IF YOU ARE TAKING MEDICATION, HAVE A MEDICAL CONDITION OF AN UPCOMING MEDICAL PROCEDURE, OR ARE PREGNANT OR NURSING, CONSULT A PHYSICIAN BEFORE USING. IF ADVERSE REACTIONS OCCUR, DISCONTINUE USE AND CONSULT YOUR HEALTHCARE PRACTITIONER.

- Highly bioavailable folate in its activated, methylated form.*
- Supports healthy methylation cycle activities, including:
  - maintenance of normal homocysteine levels*
  - promotion of healthy immune & liver detox systems*
  - optimization of neurotransmitter synthesis*

L-5-MTHF provides a highly bioavailable source of methylfolate, the activated and preferred form of supplemental folate, in 1 mg capsules.

FOLATE is a B family vitamin found naturally in foods such as leafy green vegetables and legumes. Unlike folic acid (the synthetic form of folate, widely used in food fortification), methylated folate or L-5-MTHF is considered the active form because it can be directly incorporated into the methylation cycle, a critical process involved in numerous biological functions.

Methylation, also known as "single carbon metabolism", is a key biological process. It involves donating one methyl group (a single atom of carbon bonded to three hydrogen atoms) to substrates including DNA, RNA, individual amino acids and proteins. Methylation processes are required to synthesize the neurotransmitters dopamine, serotonin, epinephrine, norepinephrine and melatonin—required for healthy brain function, mood regulation and gastrointestinal health. Methylation is critical for healthy liver detoxification, as it is needed to produce glutathione and enable the conversion of fat soluble toxins into a water soluble form during Phase 2 conjugation. The methylation cycle supports a healthy immune system by participating in the synthesis of T-cells and supporting the proper function of B-cells, and it is involved in converting homocysteine to methionine, helping to maintain homocysteine levels within the normal range. Healthy homocysteine levels are associated with healthy cognitive function and a healthy cardiovascular system.

As a methyl donor, folate serves as a primary source of the single carbon group used to methylate DNA and helps to reconvert homocysteine back to methionine via the transmethylation pathway. To accomplish such tasks and others, folate must be present in the active form of *methyltetrahydrofolate*: MTHF. However, the ability of a significant number of people to produce MTHF from folic acid, or from naturally-occurring folates, is impaired due to a genetic defect known as the MTHFR mutation or SNP (single nucleotide polymorphism). The MTHFR gene instructs the body to produce *methylenetetrahydrofolate reductase* (MTHFR), an enzyme which converts both food folates and folic acid into methylfolate. More than 40 point mutations of this gene have been identified, two of which are recognized as highly significant. People with either of these MTHFR mutations suffer from impaired enzyme function, impaired methylation and a subsequent deficiency in available folate, leading to a variety of downstream effects.

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* These statements have not been evaluated by the Food and Drug Administration.
This product is not intended to diagnose, treat, cure or prevent any disease.

Low folate status may be caused by poor dietary intake and absorption of ingested folate, as well as by drug interactions or the MTHFR polymorphism. Signs of folate deficiency include elevated homocysteine (a risk factor for cardiovascular and cognitive problems), depressed mood, sleeplessness, fatigue and irritability, peripheral neuropathy, restless legs syndrome, macrocytic anemia, weight loss, diarrhea, dementia and psychiatric disorders. During embryonic development, folate plays an important role in helping to optimize neurological growth and is widely recommended for use by women of childbearing age, both prior to and during the first trimester of pregnancy, to help reduce the risk of neural tube defects in the developing fetus.

Taking **L-5-MTHF** is a safe and effective way to increase the body's activated folate levels, helping to correct suboptimal folate status. Advantages of this naturally occurring form over synthetic folic acid supplements include the fact that it can be well absorbed by people with the MTHFR polymorphism and by people with suboptimal gastrointestinal pH levels, i.e. the elderly and others with low stomach acid. MTHF is less likely than folic acid to mask a vitamin B-12 deficiency, and offers reduced risk of interactions with drugs that inhibit *dihydrofolate reductase* enzyme activity, such as methotrexate.

Because MTHF is a bioactive molecule, it must be complexed with a stable compound for use in supplements. Moss Nutrition **L-5-MTHF** complexes natural methylated folate with calcium salt to offer outstanding absorption, solubility and stability. Enhanced intestinal absorption of **L-5-MTHF** enables increased levels of methylated folate to enter circulation and travel to needed sites and systems throughout the body where it can help support numerous critical physiological activities.

L-5-MTHF contains no animal products, is independently lab verified to contain no gluten, and is rigorously tested both pre- and post-production for purity and potency.

REFERENCES

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