

# 5-MTHF



Available in 60 capsules

- A factor in the maintenance of good health
- Helps the body to metabolize proteins
- Helps to form red blood cells
- Helps to prevent folate deficiency

## Discussion

Generically known as folate, 5-methyltetrahydrofolate (5-MTHF) is the most biologically active form of the water-soluble B vitamin, folic acid. It is the form into which the body must convert all other forms of folic acid before it can be used. Along with vitamin B12, 5-MTHF serves as a donor of methyl groups. The body utilizes methyl groups in many nervous system and metabolic processes, including the conversion of homocysteine to methionine, the synthesis of monoamine neurotransmitters (serotonin, dopamine, epinephrine), the production of melatonin, and the synthesis of DNA. In addition, sufficient folate is necessary for brain and nervous system functions. Inadequate intake of folate is likely to occur in a diet consisting primarily of processed and/or cooked foods, as processing or cooking destroys the vitamin. Besides insufficient dietary intake, poor absorption or poor utilization can result in folate depletion, as can excessive use of alcohol and other factors.\*<sup>[1]</sup>

Despite research showing that folic acid and 5-MTHF have equivalent bioavailability and that supplementation with large doses of folic acid can “force” its conversion to the more active form, 5-MTHF is often the preferred form to replenish folate. This is due, primarily, to the inadequacy of folic acid to raise plasma levels when certain conditions are present.<sup>[2,3]</sup> In this formula, 5-MTHF is provided as Quatrefolic®—the glucosamine salt of 5-MTHF. Quatrefolic is proven to have greater stability, solubility, and bioavailability over calcium salt forms of 5-MTHF. Folate is stored in the red blood cells, where levels have been shown to be higher after supplementation with 5-MTHF compared to folic acid and placebo. For example, patients given 5 mg of 5-MTHF experienced plasma levels 700% greater than patients given folic acid.\*<sup>[4]</sup>

Good folate status is associated with a healthy mood.<sup>[5]</sup> 5-MTHF might improve trimonoamine neurotransmitter synthesis and help maintain a sense of calmness and a healthy outlook.<sup>[6]</sup> In non-smoking adults, higher folate levels are indicative of gum tissue strength, and a range of vitamins including folate appear to act in support of oral health mechanisms.\*<sup>[7,8]</sup>

Folate intake is especially important for women of child-bearing age. Studies indicate that supplementing during pregnancy supports a healthy outcome.<sup>[9]</sup> In a 2010 study, researchers concluded that if a woman exhibits certain genetic variations during pregnancy, it will lead to reduced methylation capacity and subsequent DNA hypomethylation.\*<sup>[10]</sup>

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## 5-MTHF

### Medicinal Ingredients (per vegetable capsule)

Folate ((6S)-5-Methyltetrahydrofolic acid, glucosamine salt, synthetic) 1000 mcg

### Non-Medicinal Ingredients

Hypromellose, magnesium stearate, microcrystalline cellulose, silicon dioxide, stearic acid.

### Recommended Dose

*Adults:* Take 1 capsule daily.

Consult a health care practitioner prior to use if you are pregnant or breastfeeding. Folate supplementation can mask a Vitamin B12 deficiency. If you are unsure whether you are taking enough Vitamin B12 consult a healthcare practitioner prior to use.

## References

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Additional references available upon request

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