

# Frisky Folate



360° Medicine™

## CLINICAL APPLICATIONS

- Support Healthy Serum Folate Levels in Individuals with Genetic Polymorphism
- Support the Conversion of Homocysteine to Methionine
- Support Methylation
- Support Nervous System and Oral Health
- Support Normal Cellular Proliferation (including red blood cells)
- Support Reduced Risk of Neural Tube Defects

*Frisky Folate, the most biologically active form of the B-vitamin, folic acid, is a form of folate supplementation that targets individuals with genetic enzyme deficiencies, supporting the conversion of folic acid in foods or supplements into 5-methyltetrahydrofolate.*

Frisky Folate is manufactured in a Federal Drug Registered and State Board Pharmacy cGMP laboratory

## DISCUSSION

Generically known as folate, 5-methyltetrahydrofolate (Frisky Folate) 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, Frisky Folate serves as a donor of methyl groups, which the body utilizes in many nervous system and metabolic processes, including the conversion of homocysteine to methionine, synthesis of monoamine neurotransmitters (serotonin, dopamine, epinephrine), production of melatonin, and synthesis of DNA. A folate deficiency 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 a folate deficiency, as can excessive use of alcohol, antacids, antibiotics, aspirin, oral contraceptives, and other drugs.<sup>[1]</sup> In addition to other manifestations, lack of sufficient folate may affect brain and nervous system functions.

Despite research showing that folic acid and Frisky Folate have equivalent bioavailability and that supplementation with large doses of folic acid can “force” its conversion to the more active form, Frisky Folate is the preferred form to replenish folate. This is due, primarily, to the poor absorption of folic acid when gastrointestinal conditions, especially those involving malabsorption,<sup>[2]</sup> liver disease,<sup>[3]</sup> and genetic enzyme defects, are present.<sup>[4]</sup> Folate is stored in the red blood cells (RBCs), where levels have been shown to be higher after supplementation with Frisky Folate compared to folic acid and placebo. Likewise, coronary patients given 5mg of Frisky Folate experienced plasma levels 700% greater than patients given folic acid.<sup>[5]</sup>

About one-third of patients with low mood also have folate deficiency. Frisky Folate might stabilize, improve synthesis of, or substitute for the cofactor in monoamine neurotransmitter synthesis, tetrahydrobiopterin (BH4).<sup>[6]</sup> Correcting folate deficiency before administering antidepressants, as well as the concurrent use of 200-500mcg Frisky Folate daily with antidepressants, may enhance the response to antidepressants.<sup>[7]</sup>

Folate intake is especially important during pregnancy. Studies indicate that supplementing during pregnancy reduces the risks of neural tube defects and cleft palate.<sup>[8]</sup> In a 2010 study, researchers concluded that mothers, who, during pregnancy expressed a genetic polymorphism (which leads to reduced methylation capacity and subsequent DNA hypomethylation) may predispose the fetus to autism.<sup>[9]</sup>

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Frisky Folate



# Supplement Facts

Serving Size: 1 Capsule  
Servings Per Container: 60

	Amount Per Serving	%Daily Value
Folate (as L-5-methyl tetrahydrofolate)	1000 mcg	250%

**Other Ingredients:** Microcrystalline cellulose, HPMC (capsule), stearic acid, magnesium stearate, and silica.

## DOSAGE:

Take 1-2 capsules per day or as directed by your healthcare practitioner.

## REFERENCES

- Venn BJ, et al. Comparison of the effect of low-dose supplementation with L-5-methyltetrahydrofolate or folic acid on plasma homocysteine: a randomized placebo-controlled study. *Am J Clin Nutr.* 2003 Mar;77(3):658-62. [PMID:12600857]
- Yakut M, et al. Serum vitamin B(12) and folate status in patients with inflammatory bowel diseases. *Eur J Intern Med.* 2010 Aug;21(4):320-3. Epub 2010 Jun 8. [PMID: 20603044]
- Halsted CH, et al. Folate deficiency, methionine metabolism, and alcoholic liver disease. *Alcohol.* 2002 Jul;27(3):169-72. [PMID: 12163145]
- Kluijtmans LA, Van den Heuvel LP, Boers GH, et al. Molecular genetic analysis in mild hyperhomocysteinemia: a common mutation in the methylenetetrahydrofolate reductase gene is a genetic risk factor for cardiovascular disease. *Am J Hum Genet* 1996;58:35-41. [PMID: 8554066]
- [http://www.accessmylibrary.com/coms2/summary\\_0286-29434036\\_ITM](http://www.accessmylibrary.com/coms2/summary_0286-29434036_ITM) {Accessed 24 September 2010}
- Miller AL. The methylation, neurotransmitter, and antioxidant connections between folate and depression. *Altern Med Rev.* 2008 Sep;13(3):216-26. [PMID: 18950248]
- Coppen A, Bailey J. Enhancement of the antidepressant action of fluoxetine by folic acid: a randomised, placebo controlled trial. *J Affect Disord* 2000;60:121-130.
- Mosley BS, Cleves MA, Siega-Riz AM, et al. Neural tube defects and maternal folate intake among pregnancies conceived after folic acid fortification in the United States. *Am J Epidemiol* 2009 Jan 1;169(1):9-17.
- James SJ, et al. A functional polymorphism in the reduced folate carrier gene and DNA hypomethylation in mothers of children with autism. *Am J Med Genet B Neuropsychiatr Genet.* 2010 Sep;153B(6):1209-20. [PMID: 20468076]
- <http://www.thenaturalstandard.com> {accessed 25 September 2010}

## CAUTION:

Use under supervision of a licensed healthcare practitioner. Folic acid may mask the symptoms of pernicious, aplastic, or normocytic anemias. Supplementation with Firsky Folate is indicated for individuals on long term, low dose methotrexate for psoriasis or rheumatoid arthritis; however, there is evidence that it may decrease the efficacy of methotrexate when the drug is given to patients with some types of cancer. Keep out of reach of children.<sup>[10]</sup>

\*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.



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