



Active Folate 1000

VITAMIN SUPPLEMENT

Biologically active folate rich formula

- Helps to reduce the risk of neural tube defects (NTD) when taken daily at least three months prior becoming pregnant and during early pregnancy
- Helps to support normal early development of the fetal brain and spinal cord
- Helps to prevent folate deficiency
- Helps to maintain the body's ability to metabolize nutrients and form red blood cells
- Provides 1000 mcg of folate per day from Metafolin®

Active Folate 1000 provides 1000 mcg of folate per day from Metafolin® – a pure, physiologically active and bioavailable form of the folate found naturally in foods.¹ Folate is primarily involved in cell division and is required for the synthesis of nucleotides and red blood cells.² Folate requirements increase during pregnancy as a result of the rise in cell division and metabolism necessary for healthy placental and fetal development.³ Unfortunately, approximately 20 percent of Canadian women of childbearing age do not meet the recommended amount of folate for pregnancy.³ Supplementation has been shown to be the most effective method for raising folate status, yielding superior results to dietary intake.³ Daily supplementation with 400 mcg of folic acid during the first trimester helps to decrease the development of NTD by approximately 50%; however, 800 mcg daily may help reduce the risk by nearly 70%.⁴



EACH CAPSULE CONTAINS:

Folate
(calcium L-5-methyltetrahydrofolate, Metafolin®) 1000 mcg

Non-Medicinal Ingredients: Cellulose, hypromellose

* Metafolin® is a registered trademark of Merck KGaA, Darmstadt, Germany

Recommended Adult Dose: Take one capsule daily or as recommended by your healthcare practitioner.

Product Size: 90 vegetable capsules **Product Code:** 02184

NPN 80061395



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Active Folate 1000

VITAMIN SUPPLEMENT

Scientific Rationale:

Folate forms

The term “folate” can describe the natural form of folate found in foods as well as folic acid, the synthetic form found in supplements and fortified foods.¹ Metafolin® is a proprietary and bioavailable form of the naturally occurring form of folate.² It can be used directly by the body and does not depend on the genotype of folate-dependent enzymes.² In contrast, folic acid must be enzymatically converted into dihydrofolate and tetrahydrofolate before it can be used in the folate cycle.³ This conversion can be slow and may result in the accumulation of unmetabolized folic acid in the plasma.³

In a randomized, double-blind, placebo-controlled trial involving 136 healthy women of child-bearing age, the efficacy of Metafolin® supplementation was compared with folic acid supplementation.⁴ Participants were randomly assigned to one of four groups (placebo, 400 mcg of folic acid, 416 mcg of Metafolin®, or 208 mcg of Metafolin®) and consumed their treatments once daily for 24 weeks.⁴ Participants were also stratified based on their genotype for a polymorphism of the gene that encodes the folate-dependent enzyme 5, 10-methylenetetrahydrofolate reductase (MTHFR).⁴ This enzyme is a risk factor for neural tube defect (NTD) and can affect red blood cell folate levels.⁴ Fasting blood samples were collected at baseline and every four weeks for 24 weeks.⁴ All three folate groups significantly increased red blood cell and plasma folate levels, although the high dose Metafolin® supplement resulted in significantly greater increases in folate status than the other two supplements.⁴ The study's authors concluded that Metafolin® may be a good alternative to folic acid for increasing folate levels and, in turn, for decreasing the risk of NTD in women of child-bearing age.⁴

Folate and Pregnancy

The neural tube is the precursor to the brain and spinal cord, and its closure is essential for proper brain development and skull formation.⁵ The neural tube normally develops and closes 28 days after conception, although improper closure of the neural tube can result in the development of NTD.⁵ Since the 1960s, researchers

have suggested an association between folate and NTD; decreased folate levels in the plasma, red blood cells or amniotic fluid have been found in women with fetuses or children with NTD.⁵ Folate requirements increase during pregnancy because of an increase in cell division and metabolism as the placenta and fetus develop, the uterus enlarges, and maternal blood volume increases.^{1,3} Lactating women also require higher folate intakes as folate is supplied to the infant through the breast milk; however, higher folate intakes during pregnancy and lactation are difficult to achieve through natural food alone.³

Although folate fortification in food has been shown to increase folate levels and decrease the prevalence of NTD, approximately 20 percent of Canadian women of childbearing age do not meet the recommended amount of folate for pregnancy.³ Many women are also unaware that folate should be consumed before pregnancy; this is especially true in unplanned pregnancies and for young and low-income mothers.⁵ As supplementation has been shown to be more effective than dietary intake at raising folate status, folate supplements should be consumed by women of child-bearing age.³

Research has investigated the role of folate supplements during pregnancy.⁵ Studies have demonstrated that daily supplementation with 400 mcg of folate during the first trimester helps to decrease the development of NTD by approximately 50%, and 800 mcg of folate daily may help reduce the risk by nearly 70%.⁶ Folate supplementation after conception also helps to maintain healthy levels of folate throughout a pregnancy.⁷ In a randomized, placebo-controlled trial, the continued supplementation of folate after the first trimester was investigated.⁷ One hundred nineteen pregnant women continued to consume 400 mcg of folate into the second and third trimesters.⁷ Folate supplementation significantly increased maternal red blood cell and cord blood folate status between gestation weeks 14 and 36.⁷

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