B12+

Parker Family Care™

Clinical Applications

- Support Methylation*
- Support Nervous System Health*
- Support Normal Cellular Proliferation (Including Red Blood Cells)*
- 5-MTHF Does Not Contribute to Unmetabolized Folic Acid Accumulation (UMFA)*
- 5-MTHF Supports Healthy Serum Folate Levels*
- 5-MTHF Supports a Healthy Pregnancy Outcome*

B12+ *is the most biologically active form of the water-soluble B vitamin, folate. It is the preferred form of folate supplementation due to an array of conditions that can limit conversion or absorption of folic acid. Data indicate that supplementing with 5-MTHF increases plasma folate more effectively than folic acid. MecobalActive™, which is found in the B12+ plus B12 formula, is a highly pure form of methylcobalamin that does not use any harmful solvents during manufacture.**

All Parker Family Care Formulas Meet or Exceed cGMP Quality Standards

Discussion

5-MTHF (5-methyltetrahydrofolate)
5-MTHF is the most biologically active form of folate. It is the predominant type of folate present in food and the form into which the body must convert all other forms of folate.[1] Along with vitamin B12, folate 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, the production of melatonin, and the synthesis of DNA. In addition, sufficient folate is necessary for brain and nervous system functions and for a healthy pregnancy outcome.*

5-MTHF—Preferred Over Folic Acid
Folic acid is the synthetic form of folate that is used to fortify foods. It is often found in dietary supplements as well. Despite some research showing that folic acid and 5-MTHF have equivalent bioavailability, 5-MTHF is often the preferred form to replenish folate. This is due, primarily, to the presence of digestive or metabolic variabilities that can affect the conversion of folic acid to 5-MTHF.[2-4] Furthermore, studies have shown that 5-MTHF increased plasma folate more effectively than folic acid irrespective of genetic differences in metabolism.[1,5] A study in women of childbearing age showed that 5-MTHF was more effective than folic acid in improving overall folate status.*[6]

Using 5-MTHF instead of folic acid has several important advantages. 5-MTHF provides the biologically active form of folate, reduces the potential for masking hematological symptoms of vitamin B12 deficiency, reduces interactions with drugs that inhibit dihydrofolate reductase, overcomes folate metabolism challenges associated with functioning of methylenetetrahydrofolate reductase (MTHFR), and prevents the potential negative effects of UMFA in the peripheral circulation.*[7]

Quatrefolic®
In Parker Family Care's formulas, 5-MTHF is provided as Quatrefolic—the glucosamine salt of 5-MTHF. Quatrefolic is proven to have greater stability, solubility, and bioavailability over the commonly used calcium salt form of 5-MTHF. In a randomized crossover study, subjects received 400 mcg/d of Quatrefolic or 5-MTHF calcium salt. Titer-normalized Cmax and AUC demonstrated a 10% higher bioavailability of Quatrefolic.[8] Quatrefolic has several in vitro and in vivo preclinical and clinical studies to characterize and assure the safety profile of the product.*[9]

B12+ Plus B12
Parker Family Care's B12+ Plus B12 formula combines Quatrefolic and vitamin B12 as MecobalActive™ in cherry-flavored, quick-dissolve tablets. MecobalActive is a pure form of methylcobalamin. Many vitamin B12 supplements on the market contain cyanocobalamin. The liver is able to convert a small amount of cyanocobalamin to methylcobalamin; however, methylcobalamin is the preferred form because it is the bioactive form and is therefore better utilized.[10] Another point of interest regarding B12 supplementation is the commonly held belief that intramuscular injections of B12 are more effective than oral supplementation. In fact, oral supplementation is just as effective and carries the added benefits of lower cost and ease of administration.[11,12] Unlike other sources of methylcobalamin on the market, MecobalActive does not use any harmful solvents during its manufacture. The patented, advanced production methods used to create MecobalActive also result in a methylcobalamin with greater purity and lower moisture, which translates to greater stability.*

Functions of B12
Vitamin B12 supports healthy methylation through its roles in the synthesis of methionine from homocysteine and synthesis of S-adenosylmethionine (SAMe). As an example of its importance in homocysteine metabolism, one study showed that the addition of B12 to a folate regimen had a greater impact (7%) on homocysteine than did folate alone.[13] Like folate, erythroblasts require vitamin B12 for proliferation during their differentiation.[14] B12 is important for neurological health, and chronic insufficiency can affect the spinal cord, peripheral nerves, the optic nerve, and the brain. Research also supports a role for methylcobalamin supplementation in modulating melatonin secretion, enhancing light sensitivity, normalizing circadian rhythms, and improving sleep-wake cycles.*[15,16]

***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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Supplement Facts

Serving Size: 1 Quick-Dissolve Tablet
Servings Per Container: 30

	Amount Per Serving	%Daily Value
Folate (as Quatrefolic® (6S)-5-methyltetrahydrofolic acid, glucosamine salt)	1000 mcg DFE	250%
Vitamin B12 (as MecobalActive™ methylcobalamin)	2500 mcg	104,167%

Other Ingredients: Xylitol, ascorbyl palmitate, silica, and natural cherry flavor.

Quatrefolic® is a registered trademark of Gnosis S.p.A. Produced under US Patent 7,947,662.

MecobalActive™ is a trademark of Ferrer Health Tech.
The active form of B_{12}

Directions

Take one cherry-flavored tablet daily, or use as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals talking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

Does Not Contain

Wheat, gluten, yeast, soy protein, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

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