Discussion

S-Adenosyl-Methionine, SAMe, a naturally occurring substance and a primary methyl group (CH₃) donor for biochemical reactions in the brain and other parts of the body, is formed from methionine and adenosine triphosphate (ATP) in a methionine adenosyltransferase-catalyzed reaction. Following donation of a methyl group, SAMe is converted to S-adenosyl-homocysteine, which initiates the transulfuration pathway in the liver that results in glutathione generation. Methyl groups are received by proteins, DNA, RNA, creatine, and hormones. In normal cells, the transfer of methyl groups is also critical to the development and fluidity of the membrane. The formation of neurotransmitters, especially norepinephrine and dopamine, is dependent upon transmethylation. Vitamins B12 and folate are essential co-factors in the metabolism of SAMe.

SAMe has been studied as a supportive nutrient in liver concerns, musculoskeletal disorders, cognitive disorders, premenstrual disorders, and pregnancy-related issues, although most research has focused upon its use to support the body’s response to joint inflammation and low mood.*

From day 10 of a 30-day double-blind, placebo-controlled, randomized trial (N = 80), a group of postmenopausal women treated with 1600mg/d SAMe showed significantly greater improvement in symptoms of low mood in comparison to a placebo group of postmenopausal women.[1] In another study, the efficacy of 1600mg/d SAMe orally in improving low mood was comparable with that of 150mg/d imipramine orally; however, SAMe was significantly better tolerated.[2] In a small, four-week, double-blind, randomized protocol comparing oral SAMe with oral desipramine (N=26), 62% of the SAMe group improved and 50% of the drug group improved. These results were based on standardized test scores. The study revealed a significant correlation between plasma SAMe levels and the degree of clinical improvement in individuals with low mood, regardless of treatment type.*[3]

Whereas many forms of SAMe on the market contains less than 44% SS isomer, the form the body can most readily use, The 3rd Opinion Inc’s cost-effective formula contains a 70% or higher SS isomer. Nitrogen-purged foil sachets assure maximum stability which might otherwise be diminished by 50%, within in a year.*

Trimethylglycine (TMG), also known as betaine, is the amino acid, glycine, attached to three methyl (CH₃) groups. When TMG donates a single methyl group, it is converted to dimethylglycine (DMG), which is then still capable of donating two methyl groups. These groups can be added to homocysteine, which is subsequently converted to methionine and, ultimately, to SAMe. TMG has been found to protect liver cells and lower homocysteine, and may also support healthy mood. In healthy volunteers with normal plasma homocysteine concentrations, TMG supplementation lowers plasma fasting homocysteine, dose-dependently, to as much as 20% with a 6g/d dose. It also reduces the increase in homocysteine after methionine loading by up to 50%.[5,6] TMG is thought to stimulate activity of the enzyme, betaine:homocysteine methyltransferase.*[7]
**Supplement Facts**

**Serving Size:** 1 Sachet (2.9 grams)

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>% Daily Value</th>
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<tbody>
<tr>
<td>S-adenosyl-L-methionine</td>
<td>400 mg</td>
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<tr>
<td>Betaine Anhydrous (trimethylglycine)</td>
<td>600 mg</td>
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**Other Ingredients:** Sorbitol, calcium carbonate, citric acid, malic acid, stearic acid, calcium chloride, calcium oxide, silica, turmeric extract (natural color), and natural lemon flavor.

European Patent # EP2189154A1

**Directions**

Consume one sachet one to four times daily away from meals, or as directed by your healthcare practitioner. Preferably pour a small amount of the contents of a sachet directly into the mouth and allow contents to dissolve. Then repeat process until contents of the entire sachet have dissolved in the mouth. Alternatively, contents may be added to 2-4 oz of water or preferred liquid; stir and drink within 15 minutes.

Children and pregnant or lactating women should consult their healthcare practitioner prior to use. Use special caution in individuals with bipolar disorder. Do not use if tamper seal is damaged.

**References**


**Does Not Contain**

Wheat, gluten, corn protein, yeast, soy, animal or dairy products, fish, shellfish, egg, artificial colors, artificial sweeteners, or preservatives.

*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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