

SAMe



CLINICAL APPLICATIONS

- Provides Mood Support
- Supports Musculoskeletal Health
- Supports Liver Health

MUSCULOSKELETAL HEALTH

What is SAMe?

S-Adenosylmethionine (SAMe) is the active methyl form of the amino acid methionine. SAMe is necessary for an array of biochemical pathways, including neurotransmitter synthesis, metabolism of homocysteine, and detoxification. As a donor of methyl groups, SAMe supports glutathione production, liver health, musculoskeletal and joint comfort, and a positive mood. Pathways utilizing SAMe are dependent on B vitamin cofactors, therefore, this formulation of SAMe includes vitamin B6 (4 mg), 5-methyltetrahydrofolic acid (400 mcg), and vitamin B12 (100 mcg).

Overview

SAMe is a principle methyl donor for biochemical reactions throughout the body.¹ This methyl transfer, is critical to reactions involving proteins, phospholipids, DNA, RNA, creatine, hormones, development of cell membranes, degradation of histamine, and formation of norepinephrine and dopamine.² Once methyl groups have been removed or donated, SAMe is converted into homocysteine. Homocysteine can either be recycled back into methionine (a process known as trans-methylation, which is dependent on vitamin B12 and folate), or metabolized via trans-sulfuration (a vitamin B6 and betaine dependent pathway), to eventually contribute to reduced glutathione and taurine production. These pathways rely heavily on sufficient stores of these B vitamins.³

Deficiency†

SAMe levels tend to decline as people age. In addition, SAMe is used in the production of the mood elevating neurotransmitter serotonin as a methyl donor. Low levels of SAMe have been associated with certain mood challenges.

Detox Support and Antioxidant Protection†

SAMe is an essential molecule in the synthesis of glutathione, a key component of antioxidant and detoxification.⁵ After donating a methyl group, SAMe is converted to S-adenosylhomocysteine (SAH), a reaction that promotes the trans-sulfuration pathway in the liver that produces glutathione. SAH is then broken down to trimethylglycine (TMG), or betaine anhydrous which plays an important role in maintaining a healthy SAMe:SAH ratio in the liver. Studies show SAMe supports liver health^{6,7} and positively affects the cell-life regulation of hepatocytes.⁸

Mood Health†

SAMe appears to support mood health, possibly due to its active role in methylation and involvement in the formation of monoamine neurotransmitters.⁹⁻¹² A meta-analysis showed SAMe supported a healthy mood compared to placebo, with an effect comparable to that of other treatments.¹³ A 30-day, double-blind, placebo-controlled, randomized study of 80 women suggested that there was a significant improvement in mood after the women received an oral dose of 1600 mg/day of SAMe compared to placebo.¹⁴ Another study of 143 subjects who received an oral dose of 1,600 mg/day of SAMe suggested that SAMe yielded positive results that were comparable to other treatments for supporting a healthy mood, but SAMe was better tolerated.¹⁵ In a small, four-week, double-blind, randomized trial comparing oral SAMe with other treatments, 62% of the SAMe group showed significant improvement in mood and the study revealed a significant correlation between plasma SAMe levels and the degree of healthy mood support, regardless of treatment type.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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Folate

Folate is a water-soluble member of the B-complex vitamins that is critical for maintaining optimal methylation pathways. Malabsorption and genetic defects in the enzyme 5-methyltetrahydrofolate reductase (5-MTHFR) can result in an impaired ability to activate folic acid. Folic acid, in combination with vitamin B12, supports the trans-methylation pathway, which metabolizes homocysteine into cysteine. Increases in oxidative stress may shift homocysteine metabolism towards trans-sulfuration to increase hepatic production of reduced glutathione.³

Directions

1-2 capsules two times per day or as recommended by your health care professional.

Does Not Contain

Gluten, corn, yeast, artificial colors and flavors.

Cautions

Do not consume this product if you are pregnant or nursing.

Supplement Facts ^{v6}		
Serving Size 2 Capsules Servings Per Container 30		
2 capsules contain	Amount Per Serving	% Daily Value
Folate (as Quatrefolic® (6S)-5-Methyltetrahydrofolic acid glucosamine salt)	400 mcg	100%
SAMe (as S-Adenosyl-L-methionine disulfate p-toluensulfonate)	400 mg	*
* Daily Value not established		

ID# 513060 60 Capsules

References

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