

Benefits

Best SAM-e 400 contains 400 mg of active SAM-e in each tablet. Doctor's Best utilizes only the highest quality Italian SAM-e available on the market. This ensures the most potent SAM-e product with the highest percentage of the active S,S form per serving.

S-Adenosyl Methionine (SAM-e) is derived from the amino acid methionine and is one of the most important methyl donors in the central nervous system. Methylation (donation of methyl groups) is an essential process in ensuring the proper function of a number of organ systems. Methylation occurs billions of times daily in the many organs of the body. SAM-e is involved in numerous biochemical reactions in tissues including the liver, joints and brain. SAM-e is also required for the biosynthesis of critical neurotransmitters and hormones. SAM-e is the methyl donor that catalyzes the production of epinephrine, melatonin, glutathione and the amino acids cysteine and taurine. SAM-e is also known to upregulate the production of critical membrane phospholipids including phosphatidylcholine. SAM-e is also a sulfur donor and, for this reason, is critical for the formation of sulfur-containing proteoglycans in joint connective tissue.

All SAM-e supplements are not created equal

During the manufacture of SAM-e, two forms are produced known as the S,S and the R,S isomers. The S,S isomer is the biologically active form in the human body, whereas the R,S form is considered to be inactive. Best SAM-e 400 utilizes Italian SAM-e to yield the highest available percentage of the active pure S,S form on the market. Best SAM-e 400 contains an average of nearly 74% of the active S,S form. Other SAM-e products contain as little as only 50% of the active form. A higher content of the active form yields a more potent product.

The molecule SAM-e itself is highly unstable. It will degrade quickly in conditions of heat, light and moisture. To increase its stability, it must be formed into a salt. It is important to note that SAM-e used for dietary supplements exists in a number of salt forms. Best SAM-e utilizes the SAM-e tosylate disulfate salt form. This salt has been the most extensively utilized form in clinical trials of SAM-e.

Because of the unstable nature of pure SAM-e it is also highly susceptible to degradation in an acidic environment like the stomach. To be utilized effectively, it must pass through the stomach for absorption in the small intestine. For this reason, only enteric-coated formulas should be used. Best SAM-e tablets are enteric-coated to maximize the utilization and benefit of the SAM-e by the body.

Enhances Mood and Neural Function*

SAM-e has been studied for decades now for its potential role in enhancing mood and supporting healthy neural metabolism. In a double-blind placebo trial published in 1976, 30 individuals were given either SAM-e intramuscular injections (15 mg three times daily) or placebo. Individuals were assessed for improved mood and affect. It was found that 100% of patients in the SAM-e group showed significant improvements in mood, while only 30% of the placebo group showed any improvement.¹ The improvement seen with SAM-e in this trial was rapid, with a

response time of between 4 and 7 days.

A second Italian double-blind placebo controlled study was published in 1987. Again, individuals showing signs of decreased affect and mood were administered 200 mg SAM-e as daily intramuscular injections, or a placebo, for four weeks. Each group consisted of 20 patients, with all medical and laboratory results being normal. Rating scales were used to monitor changes and the authors found that the treatment with SAM-e was significantly superior to placebo and was very well tolerated.²

Researchers had known that SAM-e injections showed benefit in mood enhancement based on the results of multiple clinical trials. However, with injections, chronic administration is always challenging. For this reason, oral doses are superior in terms of ease of administration. Studies were conducted to assess the efficacy of oral SAM-e preparations. One such study was published in 1990. In this double-blind placebo-controlled trial, individuals were given increasing doses of SAM-e from 200 mg to 800 mg twice daily, or placebo, over the 21 day period of the trial. In the placebo group, one of the six individuals showed an enhancement of mood of 50% according to the rating scales, whereas 6 of the 9 individuals given the oral SAM-e showed a 50% or greater improvement in mood and affect.³ It was concluded that oral SAM-e, like SAM-e injections, can significantly enhance mood without significant side effects.

Another double-blind placebo controlled trial looked at the effects of administering 1600 mg of SAM-e, or placebo, daily to 80 women aged between 45 and 59. The administration took place for 30 days, after which the women were assessed for improvements. Rating scales were administered at 10 and 30 days. SAM-e supplementation significantly enhanced mood and affect in the women compared to placebo administration.⁴ SAM-e was also seen to be well tolerated, as three women in the placebo group and two women in the SAM-e group complained of minor side effects which did not interfere with continuation of treatment.

Two groups of researchers have conducted analyses of trials that utilized SAM-e for mood enhancement. One meta-analysis was published in 1994. The researchers analyzed the efficacy of SAM-e in oral or injection forms based on published trials dated between 1973 and 1992. The authors concluded that there was a significant improvement of 17 to 38% seen in trials of SAM-e compared to placebo response. They state that the efficacy of SAM-e was superior to placebo and its administration caused few side effects.⁵ A second review was published in 2002. The authors analyzed studies in which SAM-e doses ranged from 200 to 1600 mg daily. They also found a significant effect of SAM-e in comparison to placebo, with an evident rapid onset of effect at enhancing mood.⁶

Promotes Joint Comfort and Mobility*

As a sulfur donor to connective tissue, SAM-e plays a major role in protecting the integrity of cartilage tissue. An in vitro trial assessed the actions of SAM-e in cultured human articular chondrocytes. At a concentration of 10 micrograms/ml, proteoglycan synthesis and sulfate residue incorporation in chondrocytes was shown to be 60% higher than control levels. Based on these results, it was shown that SAM-e has a positive influence on the growth and health of cartilaginous connective tissue.⁷

In a double-blind trial with 734 individuals with compromised joint health. SAM-e given orally at a dose of 1200 mg daily for 30 days was shown to significantly promote joint comfort compared to placebo, with a high level of tolerability and low incidence of side effects. The researchers concluded that SAM-e is a highly effective supplement for enhancing joint comfort.⁸

Another trial evaluated the response of individuals experiencing discomfort in the joints to a regimen of 1200 mg SAM-e for 1 week followed by 800 mg for the second week, and then 400 mg for weeks 3 through 8. This open trial of 20,641 people showed a strong ability of SAM-e to enhance feelings of comfort within the joints. The treatment was rated as "very good" or "good" in 71% of the participants, with an additional 21% rating the treatment effect as "moderate".⁹

In a long-term trial lasting 24 months, SAM-e was given to 108 participants with compromised joint function. Individuals were given 600 mg orally per day for the first two weeks followed by 400 mg daily for the remainder of the trial. Individuals experienced significant enhancements in joint comfort, with dramatic improvements noted after 2-4 weeks of treatment. Improvements continued to 6 months and beyond.¹⁰

In addition to the above studies, a review was conducted in 1987 to assess the results of SAM-e supplementation in clinical trials for enhancing joint mobility and function. Over 22,000 individuals had participated in the clinical trials that were the subject of this review. The author concluded from his analysis that SAM-e was shown to be highly efficacious, rivaling or surpassing the effectiveness of other treatments, and also possessing a high level of safety.¹¹ Because of this, SAM-e may be the treatment of choice for enhancing joint function.

Supports Liver Health and Detoxification*

SAM-e supplementation can have profound benefits on liver function. These benefits center around its function as the major methyl donor in the liver, as well as its lipotropic activity. SAM-e also enhances the production of the antioxidant glutathione.

A number of trials have been conducted showing the ability of SAM-e to support liver detoxification functions and enhance liver health in individuals susceptible to toxin-induced liver compromise. SAM-e has the ability to normalize liver function by increasing the activity of enzymes needed to upregulate liver detoxification. These effects are comprehensive and rapid. Dosages used in these studies range from 600 mg to 1600 mg daily for 2 months to two years.^{12,13,14} In these trials, significant benefits of SAM-e supplementation were seen over placebo.

Safety

SAM-e has an excellent safety profile and is considered well-suited for long term use based on multiple clinical trials.

Individuals diagnosed with manic depression should avoid SAM-e supplementation, as it may aggravate the manic phase.

Does Not Contain: *milk, egg, wheat, corn, sugar, sweeteners, or preservatives.*

Scientific References

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