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SAMe (S-adenosyl-methionine) Supplements Review

Choose the Best SAMe Supplement and Save Money

Latest Update

Most SAMe Supplements Fail Recent Tests



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<u>Updated November 21, 2024</u> (i)



Watch the video

Summary

- What is SAMe? SAMe (S-adenosyl-methionine) is a compound that is naturally produced in the human body and is also made
 synthetically in various chemical forms for use in supplements (see What It Is).
- Possible health benefits of SAMe:
 - SAMe might be effective as a treatment for osteoarthritis and associated joint pain, stiffness, and inflammation, although this is based on preliminary studies.
 - SAMe may be somewhat effective as an antidepressant for treating major depression but is not as effective as SSRI (selective serotonin reuptake inhibitor) medications. It may be of some benefit to people who do not respond to prescription treatment.
- How to choose a SAMe product: SAMe is sensitive to breakdown if exposed to heat or moisture. Look for a product packaged in a blister pack. SAMe comes in different forms, including tosylate, disulfate tosylate, disulfate ditosylate, and 1,4-butanedisulfonate, although there is no evidence that one form is better than another (see <u>ConsumerTips</u>). Generally, a SAMe supplement should have an enteric coating to protect it from degradation by stomach acids, which can render it ineffective. Be aware that several brands of SAMe have been shown in testing to contain *less SAMe than listed*, so look for products that have passed independent, 3rd party testing, such as by ConsumerLab.com (see <u>Quality Concerns</u>).
- What did CL's tests of SAMe show? All 9 of the popular brands (including one for pets) of SAMe selected by CL for testing passed testing (i.e. contain the listed amount of SAMe and, if claimed, had an effective enteric coating), as did two products tested through ConsumerLab.com's voluntary Quality Certification Program. However, the cost to get a 400-mg dose of high-quality SAMe varied by more than 400% (from 47 cents to more than \$2). As SAMe is a relatively expensive ingredient, it pays to compare SAMe products on price, as well as quality (see What CL Found and How Products Were Evaluated).
- Best SAMe supplements: ConsumerLab chose three <u>Top Picks for SAMe</u>, based on quality in testing, enteric coating, protective packaging, lowest cost, and dose, as well as a <u>Top Pick SAMe for dogs</u>.

- How much SAMe should I take? Daily dosage shown to be effective in clinical trials ranges from 800 mg to 1,600 mg of SAMe (typically in divided doses) (see <u>ConsumerTips</u> for details).
- SAMe safety and side effects: SAMe may occasionally cause nausea and stomach upset. It should not be
 used by people with bipolar disorder. Laboratory research suggests potential toxicity with SAMe at unusually
 high doses (see <u>Concerns and Cautions</u> for more information).



Products tested in 2024

What It Is:

A naturally occurring compound, SAMe (also known as SAM-e, S-adenosyl-methionine, or S-adenosyl-L-methionine, as well ademethionine, ademetionine, or AdoMet, although these last three names are used more often in Europe than in the U.S.) is found in every cell in the body, where it's manufactured from the essential sulfur-containing amino acid methionine. Methionine itself can be produced in the body (with the assistance of vitamin B-12 and methylfolate — the activated form of folate) or obtained from protein-rich foods (Bottiglierri, AJCN 2002).

The SAMe in supplements is generally produced synthetically in a variety of chemical forms.

What It Does:

SAMe assists the body in producing a wide range of compounds, including neurotransmitters (such as dopamine and serotonin) and cartilage components (such as glycosaminoglycans). When natural SAMe levels are low, supplements may facilitate the production of these compounds.

Osteoarthritis

SAMe *might* reduce pain and disability from **osteoarthritis** of the knee, hip, hand and spine and associated joint pain, stiffness, and inflammation, although not all research agrees. Evidence supporting the use of SAMe for osteoarthritis is based mainly on studies in which SAMe was compared to anti-inflammatory drugs. In the few studies that compared SAMe to placebo, any improvements were small, at best. Higher quality studies are needed to clarify these discrepancies.

In the studies in which SAMe was compared to many of the leading anti-inflammatory drugs, SAMe, typically at a dose of about 1,200 mg per day, was about as effective as these drugs. Although SAMe took longer to work, the benefit lasted longer and it had fewer side effects (Kim, Clin Ther 2009, Najm, BMC Musculoskelet Disord 2004, Domljan, Int J Clin Pharmacol Ther Toxicol 1989, Muller-Fassbender, Am J Med 1987, Caruso, Am J Med 1987). However, when compared to placebo, the results have been mixed. One older study in Italy showed that SAMe was more effective than placebo at reducing pain among people with osteoarthritis of the knee, hip, hand or spine (Caruso, Am J Med 1987). In contrast, analyses of these results and those from a study in 1994 (Bradley, J Rheumatol 1994) showed that SAMe did not significantly reduce pain and only slightly improved functional limitation, at best, among people with osteoarthritis (Rutjes, Cochrane Database Syst Rev 2009; Soeken, J Fam Pract 2002). SAMe is not likely to help with severe osteoarthritis where cartilage has worn down so much that bones rub against bones.

For information about other supplements for osteoarthritis see the <u>Joint Supplement Review</u> (covering glucosamine, chondroitin, and MSM products).

Depression

SAMe is one of the most studied natural therapies for treating major **depression**, for which it appears to be as effective as older medications, but it is **not as effective as selective serotonin reuptake inhibitor (SSRI) medications**.

Several studies have shown that it is as effective as tricyclic antidepressants in treating major depression (<u>Delle Chiaie, Am J Clin Nutr 2002</u>; <u>Salmaggi, Psychother Psychosom 1993</u>; <u>Kagan, Am J Psychiatry 1990</u>).

One study (Papakostas, Am J Psychiatry 2010 clarified in Fleish, Am J Psychiatry 2010) found that SAMe may also be helpful to patients with major depressive disorder who did not respond to prescription treatment with a serotonin reuptake inhibitor (SRI). In the study, 800 mg of SAMe was given twice daily (a total daily dose of 1,600 mg) along with an SRI for six weeks: 46.1% of patients receiving the combination benefited, versus 35.8% receiving an SRI and a placebo supplement. The results suggest that SAMe may be an effective and safe adjunctive treatment for SRI non-responders. In contrast, a lower daily dose of SAMe (800 mg – plus 500 mcg of folinic acid and 200 mcg of vitamin B12, given in two divided doses daily) did not improve symptoms more than placebo in men and women in Australia with major depressive disorder who were taking antidepressant medication (including selective serotonin reuptake inhibitors (SSRI), serotonin-norepinephrine reuptake inhibitors (SNRI), selective noradrenergic reuptake inhibitors (NaRI), tetracyclics (mirtazapine) or 5-HT2c antagonists (agomelatine)) (Sarris, Eur Neuropsychopharmacol 2018). The same dose of SAMe and B vitamins given to 41 men and women (average age 44) with major depressive disorder who were not taking antidepressant medication resulted in a slight, but statistically significant improvement of symptoms in those who began the study with the mildest form of major depression, but there was no improvement in those with moderate to severe forms of major depression. Seven of the participants who took SAMe reported experiencing a strange taste in the mouth (which was not reported by anyone taking the placebo) but the frequency of other adverse events such as headache and abdominal discomfort were similar between the groups (Sarris, Psychopharmacology. (Berl) 2019).

Other supplements used to prevent or treat depression are <u>St. John's Wort</u>, <u>5-HTP</u>, and <u>Vitamin D</u>. (See our article about supplements for <u>depression and anxiety</u>).

Parkinson's disease

SAMe seems to reduce depression scores in people with Parkinson's disease who have major depression disorder. One small study among 21 people with Parkinson's disease and depression found that taking 400 mg of oral SAMe twice daily while also receiving 200 mg of SAMe intramuscularly for 30 days improved depression symptoms compared to placebo, although motor symptoms were unchanged (Carrieri, Curr Ther Res 1990). Another small, open-label study among 11 people with Parkinson's disease and depression found that taking 800 to 3,600 mg of SAMe daily for 10 weeks improved depression symptoms (based on the Hamilton Depression Scale) by at least 50% in all but one person. While there was no significant change in Parkinson's disease symptoms based on the Unified Parkinson's Disease Rating Scale, eight people reported feeling increased "on" time (i.e., their symptoms felt well controlled by their Parkinson's medication), and five people reported fewer and less severe dyskinesias (involuntary movements). The results of this study are limited by the lack of a control group (Di Rocco, Mov Disord 2000).

Other conditions

SAMe has been evaluated for **fibromyalgia**, but results suggest limited benefit, if any. A small study in Denmark among 44 people with fibromyalgia (average age 49), most of whom were women, showed that, compared to placebo, those taking 400 mg of SAMe twice daily for six weeks experienced slightly reduced pain at rest (0.5 point decrease on a 10-point scale for the SAMe group compared to a 0.6-point increase for the placebo group) and slightly less fatigue (1 point decrease on a 10-point scale vs. 0.2 decrease for those in the placebo group), but there was no significant improvement in tender point score, self-reported pain during physical activity, depression score, use of pain-relieving medications or quality of sleep compared to the placebo group (Jacobsen, Scand J Rheumatol 1991).

Other potential applications of SAMe include the treatment of **liver disease**, **AIDS-related myelopathy**, and **attention deficit-hyperactivity disorder (ADHD)** in adults.

There is interest in SAMe for metabolic dysfunction-associated steatotic liver disease or MASLD (previously called nonalcoholic fatty liver disease or NAFLD), based on speculation that altered levels of SAMe in the liver may be associated with progression from fatty liver to metabolic dysfunction-associated steatohepatitis or MASH (steatosis with enlargement of liver cells, a condition previously called nonalcoholic steatohepatitis or NASH). Laboratory research using an animal model of MASH found that supplementing with SAMe helped protect against liver injury (Noureddin, Exp Biol Med (Maywood) 2015). However, preliminary unpublished research in Europe among people with NASH found that SAMe, taken in doses of 1,000 mg, 1,500 mg, or 2,000 mg in two divide doses daily for six weeks did not improve liver enzyme levels or markers of fibrosis compared to baseline (Protocol No. M13-397).

See our discussion of other supplements that may help with fatty liver disease.

Quality Concerns and Tests Performed:

SAMe is an expensive ingredient and it has been shown that some manufacturers cut corners by not providing all the SAMe claimed on labels.

An established supplement brand, NOW Foods, has documented this through its own tests in 2020 and 2024 of *lesser-known*, competing brands of SAMe sold on Amazon.com. Its <u>tests in 2024</u> found zero SAMe in products from the following brands: *Florida Herbal Pharmacy*, *Jovianoy Gummies*, *Kanacoufce*, *Mono Herbs*, *SHIZAM Gummies*, and *Spliferkou*. Products from several brands contained some SAMe, but less than half of what was listed: *Actif American Health*, *aSquared*, *Bulk Supplements* (which is a somewhat popular brand), *Clear Formulas*, *Colorful Energy*, *Healing Awakening*, *Healthy Way*, *InFusions*, *NasaBe'Ahava*, *Newt Nutrition*, *Ojos Labs*, *Shevat Vitamins*, and *Superior Health*. *Nature's Craft* contained 83% of its listed amount. Products from the following brands contained at least 90% of their listed amounts: *Bestvite*, *Nature's Trove* (which was also tested and Approved by ConsumerLab in this Review), *Phytoral*, and *NOW's* own product.

Another concern is that SAMe is very susceptible to heat and moisture, both of which can cause it to degrade resulting in less ingredient than what's stated on the label. Many manufacturers will package the product in blister packs to protect products from degrading throughout their shelf-life.

SAMe can also be destroyed by stomach acid. The same enteric coating used to protect the product on the shelf can also help protect the product from stomach acid so that it can be absorbed in the intestines.

Most products use a stabilizing molecule attached to SAMe, often making it unclear as to the true weight of active SAMe because the weight of the inactive stabilizer may be included in the labeled amount. In fact, when first tested by ConsumerLab.com in 2000, nearly half of the products were found to contain significantly less SAMe than they claimed. This has improved over time.

No government agency is responsible for routinely testing SAMe supplements for their contents or quality. However, ConsumerLab.com independently evaluated several leading SAMe products to determine whether they contained the SAMe amounts stated on their labels.

All tablets and caplets were also tested to be sure that they would properly disintegrate ("break-apart") and, if enteric coated, properly released their ingredients after withstanding one hour in a simulated gastric environment. (See How Products Were Evaluated for information on testing methods and standards.)

What CL Found:

All nine SAMe supplements selected for testing by ConsumerLab.com passed our tests of quality, as did two products tested through ConsumerLab.com's voluntary Quality Certification Program. This is an improvement over our findings from previous tests (in 2011 and 2016), which found some products to contain less than their listed amounts of SAMe, particularly liquid formulas (possibly due to stability issues for SAMe in liquids). These results are also better than those from other groups that have tested lesser-known brands, likely due to our selection of products popular among ConsumerLab members, which tend to represent more established brands.

Enteric coating — Most products have it

To protect SAMe from degradation by stomach acid so that it can be absorbed "intact" in the intestine, nearly every product tested was formulated as an "enteric coated" tablet, other than *Pure Encapsulations SAMe* (which consisted of capsules that only claimed to be "acid-resistant") and *Nutramax Denamarin*, because it is a chewable tablet for dogs, so cannot be enteric coated.

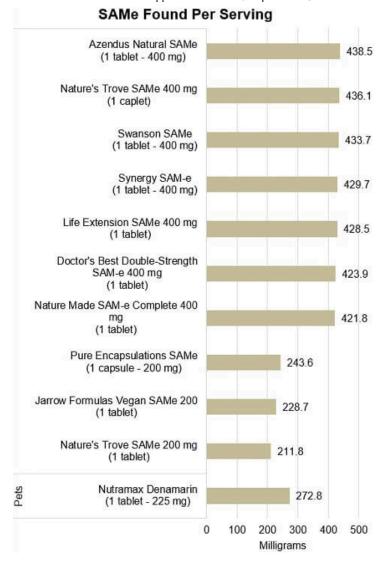
We tested all "enteric coated" pills in a special, acidic fluid similar to stomach acid, to see if they would remain intact for at least one hour, and then in a more neutral solution resembling intestinal fluid, to see if they would then properly release their contents within 30 minutes. All of the enteric-coated products passed this test. Since it claimed to be "acid resistant" we also put *Pure Encapsulations*SAMe through this test and found that it could not withstand stomach fluid for the full hour. This indicates that one should not expect an "acid resistant" product to act like an "enteric coated" product.

Pure Encapsulations was also the only product for people that did not individually enclose each pill in blister packaging to protect against exposure to moisture, although its bottle of capsules contained a silica gel desiccant pack to help remove moisture, as did the bottle of *Nutramax Denamarin*.

Amount of SAMe Found -- All provide somewhat more than listed

We found that each of the products provided about 5% to 20% more SAMe than listed on their labels, which is an acceptable overage and common with supplements. This is because SAMe can degrade over time but must, by law, provide at least 100% of what they claim until the stated expiration date. Consequently, manufacturers typically put in somewhat more ingredient during production so that products continue to meet the 100% requirement. Interestingly, the products with highest overages, *Pure Encapsulations* (22% over) and *Nutramax Denamarin* (21% over), were the only ones packaged in bottles rather than blister packs. Therefore, the overages may be to compensate for the fact that pills in a bottle are subject to moisture once the bottle is opened, which can hasten degradation — although bottles of both products do contain desiccant packs. Pills in blister packs, however, are likely to be better protected.

All of the products listed either 200 mg or 400 mg of SAMe per single tablet, caplet or capsule serving — except for the one pet product that listed 225 mg per tablet. However, keep in mind that suggested daily servings, as listed on labels, ranged from 1 to 4 pills per day, with a daily dose being as much as 1,600 mg per day. With such a wide range, it is important that you know the dosage that is appropriate for you (see <u>ConsumerTips</u> for dosage information).



Cost of SAMe — An opportunity to save over 75%

SAMe is a relatively expensive ingredient to start with, but some Approved products provide it at much lower cost than others. We found that you can get 400 mg of SAMe for as little as 47 cents from *Synergy SAMe* [Note: *Synergy* is a Vitacost.com brand] to over \$2 from *Pure Encapsulations SAMe* which, despite its high cost, was neither enteric coated nor packaged in blister packs.

Cost of 400 mg SAMe*



^{*} Costs based on amounts found.

Top Picks:

SAMe for People

Among SAMe supplements Approved in our tests for containing their listed amounts of SAMe (or somewhat more) and, if enteric coated, for passing tests showing the effectiveness of the coating, we have three *Top Picks*, described below:

400 mg: Nature's Trove SAMe 400 mg and Synergy [Vitacost.com] 400 mg

If you want 400 mg of SAMe per dose, we have two *Top Picks*, which are very similar and represent the lowest cost for high-quality SAMe. They are *Nature's Trove SAMe 400 mg* at just 49 cents per enteric coated caplet (\$29.69 for 60 caplets) and *Synergy [Vitacost.com] SAMe* at 50 cents per enteric coated caplet (\$29.99 for 60 caplets). (We had purchased the 30-caplet box of *Nature's Trove 400 mg*, which is a little more expensive per caplet (58 cents), but the 60-caplet size is a better deal and fairer comparison to the 60-caplet *Synergy* product.) Each provides the same sized, gluten-free caplets, and each was found to contain about 8% more SAMe than listed.

• 200 mg: Nature's Trove 200 mg

If you prefer a smaller dose of SAMe per pill (and a smaller pill size), our *Top Pick* is *Nature's Trove 200 mg* (we found a bit more – 211.8 mg per tablet). It costs 30 cents per enteric coated, round tablet (\$17.95 for 60 tablets), which is about half the size of 400 mg caplets described above – so a little easier to swallow. The other 200-mg products cost much more: *Jarrow Formulas* is

49 cents per tablet (which is vegan), while *Pure Encapsulations* is a whopping \$1.32 per capsule which is not enteric coated and is packaged in a bottle rather than a blister pack.

The other enteric coated supplements are also good products, but it's not necessary to pay more for them. One of these is *Azendus Natural SAMe*, which claims to be made with a "plant-based" coating, although it does contain other synthetic ingredients.

SAMe for Dogs: Nutramax Denamarin

We only tested one SAMe product for pets, *Nutramax Denamarin*, which passed our tests. It claims 225 mg of SAMe per chewable tablet and we found more, 272.8 mg, although this is an acceptable overage. At \$1.50 per chewable tablet, it's expensive for SAMe, but it is common for chewable pet supplements to be priced at a premium, and *Nutramax Denamarin* is our *Top Pick* SAMe for dogs.

Test Results by Product:

Listed alphabetically below are the test results for 11 SAMe products. ConsumerLab.com selected nine, and two products (each indicated with a CL flask) are included for having passed the same testing through ConsumerLab.com's voluntary <u>Quality Certification</u>

<u>Program</u>. These are grouped by products for people and then products for pets. Products are arranged alphabetically within each group.

Products listed as "APPROVED" in the first column were found to contain the expected amounts of SAMe within an acceptable margin and, if claimed to be enteric coated, pass tests that demonstrate this feature (see <u>Passing Score</u>). The 2nd column shows the claimed amounts and forms of SAMe as well as the amounts found in testing; it also includes descriptions of pills. The 3rd column indicates if a product claimed to be enteric coated and whether it passed testing for this feature. Also included in the 3rd column are suggested dosing instructions from labels. Cost comparisons and pricing are shown in the 4th column. Notable listed features and precautions are shown in the 5th column. The final column shows the full list of ingredients per serving as well as other listed ingredients in each product.

Results of ConsumerLab.com Testing of SAMe Supplements (Price Checks are not included in printed reviews)							
Approval Status Product Name	Serving Size Claimed Amount and	Enteric-Coated Disintegration Suggested Serving on	Cost Per Suggested Serving	Additional Ingredients, Notable Features, and Precautions on Label	Full List of Ingredients Per Serving		
	Form SAMe Description	Label	[Per 400 mg SAMe Found]				

21/25, 9:52 AM		SAIVIE Sup	piemeni Keview & 10	p Picks - ConsumerLab.com	
E	1 tablet	Enteric Coating Test:	\$0.75/tablet	Allergenic Ingredients: No	1 tablet
APPROVED		Pass		sugar, no starch, no artificial	S-Adenosyl-methionine
K	400 mg SAMe		[\$0.68]	flavors, no preservatives,	(SAMe) (from 800 mg
Azendus™	(from	Take 1-2 tablets per		sodium free, no wheat, no	of Ademethionine 1,4-
Natural SAMe	Ademethionine	day, or as	\$44.95/60	gluten, no corn, no soy, no	Butane-disulfonate) 400
oltener 600	1,4-Butane-	recommended by your	tablets	dairy, yeast free, no lactose,	mg.
azendus	disulfonate)	certified health care		no artificial colorant.	
When the state of	[Found 438.5	provider.			Other Ingredients:
Healthy Mood Balanced Mind Health Know K K Marie Graft Strangh James Refin & Visualizate Fairs	mg √]				Microcrystalline
Dist. by extreme					Cellulose
V, Inc.	Large enteric				Additional
,,	coated tablet in				Information
	blister pack				
					1 tablet
					S-Adenosyl-
					methionine (SAMe)
					(from 800 mg of
					Ademethionine 1,4-
					Butane-disulfonate)
					400 mg.
					Other Ingredients:
					Microcrystalline
					Cellulose,
					Crospovidone,
					Colloidal Silicon
					Dioxide, Magnesium
					Stearate.
					Coating: Natural
					vegiteric™,
					Ethylcellulose (Plant
					Source), Medium
					Chain Triglycerides
					(vegetable Source),
					Oleic acid (Vegetable
					Source),
					Hypromellose,
					Hydroxypropyl
					Cellulose, Sodium
					Alginate (Plant
					Source, Purified Steric
					Acid.

(1/25, 9:52 AM		SAIvie Supp	Diement Review & 10	p Picks - ConsumerLab.com	
3	1 enteric coated	Enteric Coating Test:	\$0.80/enteric	Non-GMO / Gluten Free /	1 enteric coated tablet
APPROVED	tablet	Pass	coated tablet	Soy Free / Vegetarian.	SAM-e (S-adenosyl-L-
K					Methionine disulfate p-
Doctor's Best®	400 mg SAMe	Take 1 tablet daily	[\$0.75]	Precaution: WARNING:	toluensulfonate) 400
Double-Strength	(from S-	between meals, or as		Individuals using	mg.
SAM-e 400 mg	adenosyl-L-	recommended by a	\$47.92/60	antidepressant	
Doctor's	Methionine	nutritionally informed	enteric coated	medications should consult	Other Ingredients:
BEST Double:	disulfate p-	physician. Do not chew	tablets	with their prescribing	Microcrystalline
SAM-e 400mg	tolunsulfonate)	or crush tablet.		physician prior to using this	cellulose, magnesium
HELS SUPPORT MODE AND	[Found 423.9			product	silicate, stearic acid
Dist. by Doctor's	mg √]			Additional Information	Additional
Best, Inc.	Large enteric			Non-GMO / Gluten Free /	Information
	coated tablet in			Soy Free / Vegetarian.	1 enteric coated
	blister pack				tablet
				Precaution: WARNING:	SAM-e (S-adenosyl-L-
				Individuals using	Methionine disulfate
				antidepressant	p-toluensulfonate)
				medications should	400 mg.
				consult with their	
				prescribing physician	Other Ingredients:
				prior to using this	Microcrystalline
				product. Individuals	cellulose, magnesium
				diagnosed with bipolar	silicate, stearic acid,
				disease or manic	magnesium stearate
				depression should avoid	(vegetable source),
				supplementing with SAM-	flake shellac
				e. Do not use if pregnant	dewaxed, magnesium
				or nursing. May cause	hydroxide, glycerol,
				gastrointestinal	silica, arginine base,
				discomfort in a small	sodium alginate,
				percentage of people.	calcium oxide.

21/25, 9:52 AM		SAMe Sup	plement Review & To	p Picks - ConsumerLab.com	
3	1 enteric-coated	Enteric Coating Test:	\$0.49/enteric-	Vegan, No wheat, gluten,	1 enteric-coated
APPROVED	(EnteroGuard®)	Pass	coated	soybeans, dairy, egg,	(EnteroGuard®) tablet
r	tablet		(EnteroGuard®)	fish/shellfish, peanuts/tree	S-Adenosyl Methionine
Jarrow		Adults take 1 tablet 1-2	tablet	nuts or sesame.	(from 400 mg of SAMe
Formulas®	200 mg SAMe	times a day on an			Tosylate Disulfate) 200
Vegan SAMe 200	(from SAMe	empty stomach or as	[\$0.85]	Precaution: Warning: Do	mg.
JOPPOW FORMULAS. VEGAN	Tosylate	directed by your		not use if pregnant or	
SAMe	Disulfate)	qualified healthcare	\$29.14/60	nursing. Individuals with	Other Ingredients:
B - INDEPENDENT METADORISME 200 ACTIVE SLE AND STATE AND	[Found 228.7	professional.	enteric-coated	Parkinson's disease, bipolar	Microcrystalline
Dick beath, and law functions On white party energy Options ton	mg √]		(EnteroGuard®)	disorder, or manic	cellulose, mannitol,
Dist. by Jarrow			tablets	depression	coating (hypromellose
Formulas, Inc.	Medium enteric- coated			Additional Information	acetate succinate
	(Enteroguard®)			Vegan, No wheat, gluten,	Additional
	tablet in blister			soybeans, dairy, egg,	Information
	pack			fish/shellfish,	1 enteric-coated
				peanuts/tree nuts or	(EnteroGuard®)
				sesame.	tablet
					S-Adenosyl
				Precaution: Warning: Do	Methionine (from 400
				not use if pregnant or	mg of SAMe Tosylate
				nursing. Individuals with	Disulfate) 200 mg.
				Parkinson's disease,	
				bipolar disorder, or manic	Other Ingredients:
				depression should not	Microcrystalline
				use this product. May	cellulose, mannitol,
				cause gastrointestinal	coating
				upset in some persons.	(hypromellose
				Consult a healthcare	acetate succinate,
				professional before using	stearic acid
				this product if you are	[vegetable source],
				under the age of 1, are	triethyl citrate,
				taking medication	riboflavin), glyceryl
				(antidepressants,	behenate,
				selective serotonin re-	magnesium stearate
				uptake inhibitors (SSRIs)	(vegetable source),
				and MAO inhibitors) or	silicon dioxide and
				have a medical condition;	sodium starch
				if adverse reactions	glycolate.
				occur, discontinue use.	
		<u> </u>			

21/25, 9:52 AM		SAIvie Supp	Diement Review & 10	p Picks - ConsumerLab.com	
3	1 enteric coated	Enteric Coating Test:	\$0.90/enteric	Gluten Free. Non GMO.	1 enteric coated
APPROVED	vegetarian tablet	Pass	coated		vegetarian tablet
K			vegetarian tablet		S-Adenosyl-Methionine
Life Extension®	400 mg SAMe	Take one (1) tablet one			400 mg.
SAMe 400 mg	(from S-	to three times daily in	[\$0.84]		
S LIFE EXTENSION	Adenosyl-	divided doses,			Other Ingredients:
SAMe	Methionine)	preferably on an empty	\$27.00/30		Cellulose, methacrylic
400 mg S-Adenosyl-Methionine	[Found 428.5	stomach, or as	enteric coated		acid copolymer,
Supports Joints and Emotional Well-Being* NETERIC COATED STATES AND STATES A	mg √]	recommended by a	vegetarian		mannitol, citric acid,
Dist. by Quality		healthcare practitioner.	tablets		calcium carbonate,
Supplements and	Large enteric	Take with co-factors			stearic acid, silica,
Vitamins, Inc.	coated	vitamin B12, B6, and			hypromellose
vitariiris, iric.	vegetarian tablet	folic acid.			Additional
	in blister pack				Information
					1 enteric coated
					vegetarian tablet
					S-Adenosyl-
					Methionine 400 mg.
					Other Ingredients:
					Cellulose, methacrylic
					acid copolymer,
					mannitol, citric acid,
					calcium carbonate,
					stearic acid, silica,
					hypromellose,
					glyceryl triacetate,
					sodium starch
					glycolate,
					croscarmellose
					sodium, yellow ochre.

21/25, 9:52 AM		SAMe Sup	plement Review & To	pp Picks - ConsumerLab.com	
3	1 enteric coated	Enteric Coating Test:	\$1.05/enteric	No Artificial Flavors. No	1 enteric coated tablet
APPROVED	tablet	Pass	coated tablet	Preservatives. Gluten Free.	Protein less than 1 g,
K					SAM-e (S-adenosyl-
Nature Made®	400 mg SAMe	Adults, start by taking 1	[\$1.00]	Precaution: CAUTION:	methionine) 400 mg.
SAM-e	(from S-	tablet daily with water		People with bipolar (manic)	
Complete® 400	adenosyl-	on an empty stomach.	\$37.93/36	depression or who are	Ingredients: S-adenosyl-
mg	methionine	If benefits are not	enteric coated	experiencing severe issues	methionine Tosylate
Nature Made.	Tosylate	achieved within two	tablets	with mood	Disulfate, Cellulose Gel
SAM-e Complete ^a 400 mg	Disulfate)	weeks, you may require		Additional Information	Additional
healthy mored and endoward well being? Help supports in bushing Help supports in bushing day with the bushing and day the bushing and and the bushing and and and the bushing and and and and the bushing and and and and a	[Found 421.8	a higher level of			Information
Implement 38 (NYEEC COAVED DARLES	mg √]	supplementation		No Artificial Flavors. No	
Dist. by Nature		Additional		Preservatives. Gluten	1 enteric coated
Made Nutritional	Large enteric	Information		Free.	tablet
Products	coated tablet in				Protein less than 1 g,
	blister pack	Enteric Coating Test:		Precaution: CAUTION:	SAM-e (S-adenosyl-
		Pass		People with bipolar	methionine) 400 mg.
				(manic) depression or	
		Adults, start by taking		who are experiencing	Ingredients: S-
		1 tablet daily with		severe issues with mood,	adenosyl-methionine
		water on an empty		including thoughts of	Tosylate Disulfate,
		stomach. If benefits		suicide, should not take	Cellulose Gel,
		are not achieved		any product containing	Methacrylic Acid
		within two weeks, you		SAM-e except under a	Copolymer, Stearic
		may require a higher		physician's supervision. If	Acid, Silicon Dioxide,
		level of		you are pregnant, nursing,	Triethyl Citrate,
		supplementation. To		or taking any	Magnesium Stearate,
		determine the proper		medications including	Color Added,
		level for you,		antidepressant, consult	Mannitol, Sodium
		gradually increase the		your physician before	Starch Glycolate.
		number of tablets		use.	
		(maximum 1,600			
		mg/day) until			
		benefits are achieved.			

2 1/25, 9:52 AIVI	1/25, 9:52 AM SAMe Supplement Review & Top Picks - ConsumerLab.com					
3	1 enteric-coated	Enteric Coating Test:	\$0.30/enteric-	Non GMO Project Verified	1 enteric-coated tablet	
APPROVED	tablet	Pass	coated tablet	seal. This product is Gluten-	S-Adenosyl-Methionine	
r.				Free. Kosher. No Peanuts,	(from 400 mg SAMe	
3	200 mg SAMe	Take one tablet twice	[\$0.57]	eggs, dairy, soy, wheat,	Tosylate Disulfate) 200	
Top Pick	(from SAMe	daily, preferably on an		yeast, gluten, tree nuts,	mg.	
r	Tosylate	empty stomach, or as	\$17.95/60	crustacean shellfish, fish or		
for 200 mg	Disulfate)	directed by a physician.	enteric-coated	animal by products	Ingredients: S-Adenosyl-	
Nature's Trove®	[Found 211.8	For some people,	tablets	Additional Information	methionine Tosylate	
SAMe 200 mg A. NATURES TROVE	mg ✔]	additional		Non CMO Drainet Verified	Disulfate	
SAMe		supplementation may		Non GMO Project Verified	Additional	
two 400 ng 100 hagan Dayan Duning May matanashy sapport haday yang-com	Medium circular	be beneficial.		seal. This product is	Information	
See Section Associated Association and Associa	enteric-coated			Gluten-Free. Kosher. No	4	
GO Blister packed Owan Supplement	tablet in blister			Peanuts, eggs, dairy, soy,	1 enteric-coated	
Dist. by Nature's	pack			wheat, yeast, gluten, tree	tablet	
Trove, LLC				nuts, crustacean shellfish,	S-Adenosyl-	
				fish or animal by	Methionine (from 400	
				products.	mg SAMe Tosylate	
				5 0	Disulfate) 200 mg.	
				Precaution: Caution: If		
				you suffer from manic	Ingredients: S-	
				depression, do not use	Adenosyl-methionine	
				this product. If you are	Tosylate Disulfate,	
				currently taking	Cellulose, Enteric	
				prescription	Coating (contains one	
				antidepressants, consult	or more of the	
				your physician before use.	following:	
				Pregnant or lactating	Hydroxypropyl	
				women should consult	Methylcellulose	
				their physician before	Phthalate,	
				taking this product.	Methacrylic Acid	
					Copolymer,	
					Hydroxypropyl	
					Methylcellulose,	
					Triacetin, Titanium	
					Dioxide), Mannitol,	
					Citric Acid, Vegetable	
					Stearic Acid, Silicon	
					Dioxide, Sodium	
					Starch Glycolate,	
					Croscarmellose	
					Sodium, Yellow	
					Ochre.	
		1		1	1	

1/25, 9:52 AM		SAMe Supp	olement Review & To	pp Picks - ConsumerLab.com	
3	1 enteric-coated	Enteric Coating Test:	\$0.58/enteric-	ConsumerLab.com	1 enteric-coated caplet
APPROVED	caplet	Pass	coated caplet	Approved Quality SAMe	S-Adenosyl-Methionine
K.				seal. Non GMO Project	(from 800 mg SAMe
Nature's Trove®	400 mg SAMe	Take one caplet daily,	[\$0.53]	Verified seal. This product is	Tosylate Disulfate) 400
SAMe 400 mg 🗥	(from SAMe	preferably on an empty		Gluten-Free. Kosher. No	mg.
NATURES TROVE	Tosylate	stomach, or as directed	\$17.49/30	Peanuts, eggs, dairy, soy,	
SAMe Ann 80 mg John Tuger Budge	Disulfate)	by a physician. For	enteric-coated	wheat, yeast, gluten, tree	Ingredients: S-Adenosyl-
Reading Model' point models' Lever Sunday' Lever Sunday' A May to Sendine	[Found 436.1	some people, additional	caplets	nuts, crustacean shellfish,	methionine Tosylate
30	mg √]	supplementation may		fish or animal by products	Disulfate
Dist. by Nature's		be beneficial.		Additional Information	Additional
Trove, LLC	Large enteric-			Additional information	Information
Trove, LLC	coated caplet in			ConsumerLab.com	IIIIOIIIIatioii
	blister pack			Approved Quality SAMe	1 enteric-coated
				seal. Non GMO Project	caplet
				Verified seal. This product	S-Adenosyl-
				is Gluten-Free. Kosher. No	Methionine (from 800
				Peanuts, eggs, dairy, soy,	mg SAMe Tosylate
				wheat, yeast, gluten, tree	Disulfate) 400 mg.
				nuts, crustacean shellfish,	
				fish or animal by	Ingredients: S-
				products.	Adenosyl-methionine
					Tosylate Disulfate,
				Precaution: Caution: If	Cellulose, Enteric
				you suffer from manic	Coating (Methacrylic
				depression, do not use	Acid Copolymer,
				this product. If you are	Hydroxypropyl
				currently taking	Methylcellulose,
				prescription anti-	Triacetin, Titanium
				depressants, consult your	Dioxide), Mannitol,
				physician before use.	Citric Acid, Vegetable
				Pregnant or lactating	Stearic Acid, Silicon
				women should consult	Dioxide, Sodium
				their physician before	Starch Glycolate,
				taking this product.	Croscarmellose
					Sodium, Yellow
					Ochre.

1/25, 9:52 AIVI		SAIVIE Supp	Diement Review & 10	p Picks - ConsumerLab.com	
2	1 capsule	Enteric Coating Test:	\$1.32/1 capsule	GFCO.org Gluten-Free seal.	1 capsule
APPROVED				Non-GMO & Hypoallergenic.	SAMe (S-adenosyl-
r .	200 mg SAMe	Take 1 capsule, 1-2	[\$2.16]		methionine) (from S-
Pure	(from S-	times daily, between		Precaution: WARNING: If	adenosyl-L-methionine
Encapsulations®	adenosyl-L-	meals, or as directed by	\$79.00/60	you are pregnant or	disulfate tosylate) 200
SAMe	methionine	a health professional.	capsules	lactating, have any health	mg.
	disulfate			condition or are taking any	
	tosylate)			medication	Other Ingredients:
PLIFE	[Found 243.6			Additional Information	Vegetarian capsule
The Control of the Co	mg √]			Additional information	(cellulose, water)
Mfd. by Pure				GFCO.org Gluten-Free	Additional
Encapsulations	Large capsule in			seal. Non-GMO &	Information
Encapsulations	plastic bottle			Hypoallergenic.	Illioilliation
	containing a				1 capsule
	desiccant pack			Precaution: WARNING: If	SAMe (S-adenosyl-
				you are pregnant or	methionine) (from S-
				lactating, have any health	adenosyl-L-
				condition or are taking	methionine disulfate
				any medication	tosylate) 200 mg.
				particularly if you have	
				bipolar disorder or are	Other Ingredients:
				taking antidepressant	Vegetarian capsule
				medication, consult your	(cellulose, water),
				health professional	hypoallergenic plant
				before use.	fiber (cellulose),
					calcium oxide,
					ascorbyl palmitate,
					calcium chloride.

21/25, 9:52 AM		SAMe Supp	plement Review & To	p Picks - ConsumerLab.com	
2	1 enteric coated	Enteric Coating Test:	\$0.77/enteric	Precaution: Warning: For	1 enteric coated tablet
APPROVED	tablet	Pass	coated tablet	adults only. Consult your	SAMe (S-Adenosyl L-
K				healthcare provider before	Methionine) (from 800
Swanson® SAMe	400 mg SAMe	Take one tablet one to	[\$0.71]	use if you are pregnant or	mg of S-adenosyl-L-
SWANSON'	(from S-	four times per day with		nursing, taking	methionine tosylate
SWANGEN .	adenosyl-L-	water.	\$22.99/30	antidepressant medication	disulfate) 400 mg.
SAMe	methionine		enteric coated	or if you have bipolar	
Emotional Wellness and Joint Health"	tosylate		tablets	disorder.	Other Ingredients:
Diet D. C. C. C.	disulfate)				Microcrystalline
Dist. by Swanson Health Products	[Found 433.7				cellulose
Health Products	mg √]				Additional
					Information
	Large enteric				Information
	coated tablet in				1 enteric coated
	blister pack				tablet
					SAMe (S-Adenosyl L-
					Methionine) (from
					800 mg of S-
					adenosyl-L-
					methionine tosylate
					disulfate) 400 mg.
					Other Ingredients:
					Microcrystalline
					cellulose (plant fiber),
					croscarmellose
					sodium, ascorbyl
					palmitate, silica,
					ascorbic acid, citric
					acid, enteric coating
					[methacrylic acid
					copolymer,
					hydroxypropyl
					methylcellulose,
					hydroxypropyl
					cellulose, calcium
					carbonate, riboflavin
					(colorant), propylene
					glycol].
					glycol].

21/25, 9:52 AM		SAMe Supplement Review & Top Picks - ConsumerLab.com			
3	1 enteric coated	Enteric Coating Test:	\$0.50/enteric	Non GMO Project Verified	1 enteric coated tablet
APPROVED	tablet	Pass	coated tablet	seal. Kosher. Delayed	S-Adenosyl Methionine
K				Release. Free of: Milk, Eggs,	(from 800 mg SAM-e
3	400 mg SAMe	Take 1 tablet daily on	[\$0.47]	Peanuts, Tree Nuts,	tosylate disulfate) 400
Top Pick	(from SAM-e	an empty stomach or		Crustacean Shellfish, Fish,	mg.
K	tosylate	as directed by a	\$59.98/two 60	Soy, Gluten	
for for 400 mg	disulfate)	healthcare	enteric coated	Additional Information	Other Ingredients:
Synergy® SAM-e	[Found 429.7	professional.	tablet blister	Additional information	Microcrystalline
	mg √]		packs (total 120	Non GMO Project Verified	cellulose, mannitol
SAM-e Stabilized 5-Advency Methorine			enteric coated	seal. Kosher. Delayed	Additional
TARGETED WELLINESS	Large enteric		tablets)	Release. Free of: Milk,	Information
	coated tablet in			Eggs, Peanuts, Tree Nuts,	IIIIOIIIIatioii
Dist. by	blister pack			Crustacean Shellfish, Fish,	1 enteric coated
Vitacost.com Inc.				Soy, Gluten.	tablet
Vitacost.com inc.					S-Adenosyl
				Precaution: Warning:	Methionine (from 800
				Individuals using	mg SAM-e tosylate
				prescribed medications	disulfate) 400 mg.
				such as antidepressants	
				(including selective	Other Ingredients:
				serotonin re-uptake	Microcrystalline
				inhibitors (SSRIs) and	cellulose, mannitol,
				MAO inhibitors) should	methacrylic acid
				consult a physician before	copolymer, citric acid,
				using. Individuals with	silicon dioxide,
				Parkinson's disease,	vegetable stearic
				bipolar disorder or manic	acid, hydroxypropyl
				depression should not use	methylcellulose,
				SAM-e. Do not use if	triacetin, sodium
				pregnant or nursing. Do	starch glycolate,
				not exceed recommender	modified cellulose
				dose. May cause	gum and riboflavin
				gastrointestinal upset in	(color).
				some people if you	
				experience discomfort,	
				discontinue use.	
Pet Product:	I	I	1	1	1

z	1 chewable	Enteric Coating Test:	\$1.50/chewable	Silybin-phosphatidyl-	1 chewable tablet
APPROVED	tablet		tablet	choline complex 82 mg per	S-Adenosyl-methionine
K		Up to 6 lbs: 1/4		chewable tablet	[Contains NMXSS75®
Nutramax®	225 mg SAMe	Chewable Tablets; 7 -	[\$2.20]		S-Adenosyl-methionine,
Denamarin®	(from	15 lbs: 1/2 Chewable		Made In USA From Globally	proprietary veterinary
питеатах	NMXSS75® S-	Tablets; 16 - 30 lbs: 1	\$44.99/30	Sourced Ingredients.	researched
Denamarin'	Adenosyl-	Chewable Tablet; 31 -	chewable tablets		specifications] 225 mg,
DARY SUPPLEMENT FOR DOGS OF ALL SIZES	methionine)	45 lbs: 1 1/2 Chewable			Silybin-phosphatidyl-
	[Found 272.8	Tablets; 46-60 lbs: 2			choline
Dist. by	mg √]	Chewable Tablets			Additional
Nutramax®		Additional			Information
Laboratories	Large circular	Information			
Veterinary	chewable tablet				1 chewable tablet
Sciences, Inc.	in plastic bottle	Enteric Coating Test:			S-Adenosyl-
	containing a				methionine [Contains
	desiccant pack	Up to 6 lbs: 1/4			NMXSS75® S-
		Chewable Tablets; 7 -			Adenosyl-methionine,
		15 lbs: 1/2 Chewable			proprietary veterinary
		Tablets; 16 - 30 lbs: 1			researched
		Chewable Tablet; 31 -			specifications] 225
		45 lbs: 1 1/2			mg, Silybin-
		Chewable Tablets; 46-			phosphatidyl-choline
		60 lbs: 2 Chewable			complex (SPC)
		Tablets; 61-75 lbs: 2			[Providing 24 mg
		1/2 Chewable			Silybin A+B] 82 mg.
		Tablets; 76-90 lbs: 3			
		Chewable Tablets; 91-			Other Ingredients:
		105 lbs: 3 1/2			None listed.
		Chewable Tablets;			
		Over 105 lbs: 4			
		Chewable Tablets.			

Unless otherwise noted, information about the products listed above is based on the samples purchased by ConsumerLab.com (CL) for this Product Review. The samples are from a single lot of the respective product. Be aware that there may lot-to-lot variation in products, particularly natural products. Manufacturers may change ingredients and label information at any time, so be sure to check labels carefully when evaluating the product you use or buy as it may be different from the product we tested. Manufacturers may also change ingredient suppliers, which can affect product quality. Pricing can change over time and vary based on retailer, promotions, and other factors.

The information contained in this report is based on the compilation and review of information from product labeling and analytic testing. CL applies what it believes to be the most appropriate testing methods and standards. The information in this report does not reflect the opinion or recommendation of CL, its officers or employees. CL cannot assure the accuracy of information.

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Products tested in 2024

ConsumerTips™:

Forms

SAMe comes in different forms, depending on the compound used to stabilize it and prevent degradation. These compounds include tosylate, disulfate tosylate, disulfate ditosylate, and 1,4-butanedisulfonate (Actimet™). They're usually written immediately after SAMe's chemical name. Because these added compounds weigh as much as the SAMe molecule itself, a tablet containing 200 mg of "S-adenosyl-methionine disulfate tosylate," for example, contains only 100 mg of SAMe. Most, but not all, labels make this clear. An accurate ingredient listing for SAMe in the Supplement Facts panel on a product should exclude the stabilizing compound, as does the dosage information below.

There is no evidence to suggest one form is more beneficial than another, although most supplements in the U.S., and all of the supplements in this review, contain the tosylate, disulfate tosylate, or disulfate ditosylate form. One in-vitro study found the 1,4-butanedisulfonate form did not stimulate brain cells when compared to the free form of SAMe (s- adenosyl-l- methionine with no stabilizing compounds attached) (<u>Travagli, Euro J Pharmacol 1994</u>). However, this study was performed in isolated brain tissue, not in humans. A clinical study in people with depression found a dose of 1600 mg of the 1,4-butanedisulfonate form of SAMe (providing 800 mg of SAMe daily) for 6 weeks improved symptoms of depression as well as 50 mg the tricyclic antidepressant imipramine (<u>Chiaie, Am J Clin Nutr 2002</u>) a- similar to the antidepressant effect found for SAMe supplementation in general (<u>Bressa, Acta Neurol Sc and Suppl 1994</u>). Most studies on SAMe for osteoarthritis appear to use the tosylate, disulfate tosylate, or disulfate ditosylate form.

SAMe, homocysteine and B vitamins — What's the connection?

SAMe is converted into homocysteine in the body. There has been concern that taking SAMe supplements may raise homocysteine levels — elevated levels of which are a risk factor for cardiovascular disease. However, short term studies with daily doses of SAMe of up to 1,600 mg have not been shown to increase homocysteine levels (Thompson, Jaltern Complement Med 2009; Goren, Pharmacotherapy 2004). One way the body eliminates homocysteine is by converting it into the antioxidant glutathione in a process that requires B vitamins such as B6, B12 and folate (Obeid, <a href="Nutrients 2013). For this reason, supplementing with B vitamins is sometimes recommended when taking SAMe. However, based on the studies noted above showing no increase in homocysteine levels following short-term SAMe supplementation, it would appear that, as long as you have an adequate intake of B vitamins from your diet, supplementing with B vitamins should not be necessary.

Storage

SAMe attracts moisture from the air, making it very susceptible to degradation when exposed to moisture. Consequently, it is often sold in blister packaging in which each tablet is individually sealed. This protects the pills. Products sold in blister packs are noted in the table above in the 3rd column. Be careful with pills sold in bottles: Keep them out of moisture and heat; keep the bottle sealed; and if they come with a desiccant (drying) pack in the bottle, keep the pack in the bottle to protect the pills. Don't worry if the product is slightly yellow, as SAMe is inherently off-white to light yellow — and some manufacturers choose to add colorants that can, for example, make tablets more white or deeper yellow.

How to take

It is generally recommended that SAMe be taken on an empty stomach to increase absorption, although this does not appear to be well documented. If SAMe causes nausea or stomach upset, take it with food, or take an enteric-coated product — as it is less likely to break down in the stomach, but rather, in the intestine, where SAMe is absorbed. You can also try taking smaller, divided doses.

Dosage

Generally recommended daily doses of SAMe range from 400 to 1,600 mg, depending on the condition, its severity, and course of treatment.

Osteoarthritis — most studies found that 1,200 mg of SAMe was as effective as leading anti-inflammatory treatments in relieving joint pain (Kim, Clin Ther 2009; Najm, BMC Musculoskelet Disord 2004; Muller-Fassbender, Am J Med 1987). One study found that taking 1,200 mg the first week, followed by 800 mg thereafter was as effective as taking naproxen (Aleve) for the relief of knee pain (Domljan, Int J Clin Pharmacol Ther Toxicol 1989). Losing weight and switching from high-impact to low-impact sports are also recommended for people with osteoarthritis.

Depression — doses ranging from 400 to 1,600 mg per day have been used. Several studies have used 1,600 mg daily of SAMe alone (<u>Delle Chiaie, Am J Clin Nutr 2002</u>); <u>Salmaggi, Psychother Psychosom 1993</u>, <u>Kagan, Am J Psychiatry 1990</u>) or as an adjunct to treatment with a selective serotonin reuptake inhibitor (SSRI) (<u>Papakostas, Am J Psychiatry 2010</u>).

Fibromyalgia – 800 mg per day has been used.

Liver disease - higher doses of 1,200 mg to 1,600 mg per day have been used for treatment.

After starting SAMe supplementation, improvements may take anywhere from a few days to five weeks to become noticeable. The doses noted above are for SAMe taken orally. SAMe also has been taken by injection under medical supervision.

Concerns and Cautions:

SAMe is generally considered safe when taken in appropriate doses, but be aware that it may occasionally cause **nausea and stomach upset**. Taking enteric-coated products, reducing the SAMe dosage, or taking it with meals may reduce these adverse effects. A **strange taste in the mouth** has also been reported with SAMe supplementation (<u>Sarris, Psychopharmacology (Berl) 2019</u>).

A suspected **serotonergic reaction** (which can cause symptoms such as agitation, sweating, high body temperature and diarrhea) leading to hospitalization was reported in an individual taking 800 mg of SAMe daily in addition to antidepressant medication. However, the reaction resolved quickly and was not confirmed as serotonin syndrome (<u>Sarris, Eur Neuropsychopharmacol 2018</u>).

Higher doses of SAMe (1,600 mg per day) have been reported to cause **drowsiness** in some people (<u>Arnold, Eur Neuropsychopharmacol</u> 2005).

Laboratory studies in mice and cell cultures suggest that supplementing with SAMe can lead to the formation of compounds (adenine and methylthioadenosine) that can be **potentially toxic**. The researchers cautioned that excess SAMe can essentially reverse the role SAMe normally plays in producing important compounds in the body. However, feeding mice amounts of SAMe proportionately similar to amounts typically used by people did not seem to adversely affect their body weights or physical condition over the period of one month — although it did **lengthen their normal circadian rhythms**. The researchers called for a tightening of legislation regarding the availability of SAMe over-the-counter (Fukumoto, Commun Biol 2022).

Individuals with bipolar (manic/depressive) disorder should know that SAMe could **trigger a manic phase** (<u>Cuomo, Ann Gen Psychiatry 2020</u>). People taking standard antidepressants, including MAO inhibitors, SSRIs, and tricyclics should not take SAMe except on a physician's advice. Also, SAMe might help relieve the side effects of levodopa treatment (for Parkinson's disease) but it might also **reduce the effectiveness of levodopa over time** (<u>Muller, Clin Neuropharmacol 2005</u>).

To further assist consumers, ConsumerLab.com licenses its flask-shaped CL Seal of Approved Quality (see <u>The CL Seal</u>) to manufacturers for use on labels of products that have passed its testing. ConsumerLab.com will periodically re-evaluate these products to ensure their compliance with ConsumerLab.com's standards.

+31 sources

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