

# S-adenosyl-L-methionine (S-AMe)

## What It Is:

A naturally occurring compound, S-AMe (also known as SAM-e, S-adenosyl-methionine, or S-adenosyl-L-methionine) is found in every cell in the body, where it's manufactured from the essential sulfur-containing amino acid methionine. Protein-rich foods such as meats and cheeses are sources of this amino acid.

## What It Does:

Although S-AMe has many uses, it has primarily been shown to be effective as a treatment for osteoarthritis and associated joint pain in people. There is also some evidence for its short-term use in treating major depression in people. Interestingly, the arthritis application of S-AMe was discovered during clinical trials for its use in depression.

S-AMe is also used to treat inflammatory liver disease in dogs and cats.

S-AMe 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 S-AMe levels are low, supplements may facilitate the production of these compounds.

## Quality Concerns and What CL Tested for:

S-AMe is an expensive ingredient, so experts have been concerned about the actual quality and quantity of S-AMe in supplements. Another concern is that S-AMe can break down under certain circumstances resulting in less ingredient than what's stated on the label. High quality S-AMe supplements are enteric coated and come in foil blister packs, to keep them from breaking down. This medication can not be formulated into a flavored liquid as many other veterinary drugs are, for ease of administration to pets. A stabilizing molecule is always added to S-AMe products.

## Recommended Products

The products listed below are recommended by us, either because they passed testing by the independent laboratory ConsumerLabs.com for digestibility, potency and purity, or because they are made by a reputable manufacturer that is trusted.

1. *Baywood PureChoice S-AMe S-Adenosyl-Methionine* - 100 mg.
2. *Doctor's A-ZT SAM-e* - 200 mg S-AMe in tosylate disulfate form.
3. *FoodScience of VermontR SAM-e (S-adenosyl-methionine)* - 200 mg in tosylate disulfate form.
4. *Integrative Therapeutics Vitaline Formulas* - 200 mg.
5. *Jarrow Formulas Pharmaceutical Grade, Stabilized; Natural SAM-e 200; Full Potency; S-Adenosyl Methionine; 200 mg Elemental SAM-e from 400 mg S-AMe-e tosylate disulfate* - 200 mg.
6. *Kal S-AMe 200 mg, 1 Daily, Clear Quality™, Stabilized Active* - 200 mg.
7. *Life Extension S-AMe S-Adenosyl-Methionine 400 mg* - 400 mg.
8. *Longs SAM-e (S-adenosyl-methionine) 200 mg* - 200 mg S-AMe in tosylate disulfate form.

9. *Natrol SAME 200 mg - 200 mg.*
10. *Nature Made Health Solutions Mood Plus Improves Mood Naturally SAM-e - 200 mg.*
11. *Nature's Bounty SAM-e 400 mg, Double Strength, Enteric Coated and Stomach Friendly - 400 mg.*
12. *Nature's Plus The Energy Supplements Advanced Therapeutics SAME Rx-Mood, S-Adenosyl-Methionine Supplement, Enhanced Stability Enteric Coated - 200 mg SAME in tosylate disulfate form.*
13. *NutraLife Health Products Incorporated The Original SAME, 200 mg active S-adenosyl-methionine per tablet - 200 mg.*
14. *NutraMax Denosyl and DenaMarin – all size tablets.*
15. *Olympian Labs SAME Gold 400 mg, Pharmaceutical Grade - 400 mg.*
16. *Puritan's Pride Inspired by Nature SAM-e S-Adenosyl-methionine, 200 mg - 200 mg.*
17. *Swanson Ultra, The Most Advanced Nutrition Technology Tablets, SAME Dietary Supplement - 200 mg SAME in tosylate disulfate form.*
18. *Vitamin Depot Double Strength SAM-e (S-adenosylmethionine) 400 mg – 400 mg.*
19. *The Vitamin Shoppe Mood Support SAME 200 mg, S-adenosyl-L-methionine – 200 mg SAME in tosylate disulfate form.*
20. *Vitamin World SAM-e S-Adenosyl-methionine, 200 mg - 200 mg.*

#### **Products that Are Not Recommended:**

The product below failed testing by ConsumerLabs in 2003. Non-enteric coated tablets are not recommended.

1. *Great Earth Vitamin Stores YouthQuest Age Burners, SAME Plex 200 mg/Isospan Delivery, S-Adenosyl-Methionine-Disulfate-Tosylate - 200 mg SAME in tosylate disulfate form. Contained only 30% of labeled SAME.*

#### **Tips for Buying and Using:**

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.

SAME is absorbed from the intestine. Enteric-coated products, which aren't likely to break down in the stomach, are available. Consumers should choose these to prevent possible nausea and stomach upset.

Absorption is better when given on an empty stomach. However, if SAmE causes stomach upset, it should be given with food, as giving it with food is better than not giving it at all.

Products in foil blister packs are best, as each pill is protected from breakdown due to exposure to air until it is used. Broken pills should be discarded, and doses should be rounded to the nearest whole pill.

After starting SAmE supplementation, improvements may take anywhere from a few days to five weeks to become noticeable.

### **Cautions and Concerns:**

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 can reduce these adverse effects.

Pets taking standard antidepressants, including MAO inhibitors, SSRIs, and tricyclics should not take SAmE except on a veterinarian's advice. SAmE products aren't likely to help severe osteoarthritis where cartilage has worn down so much that bones rub against bones.